

KAREL VAN DELFT

# CHESS FOR EDUCATORS



How to Organize and Promote a  
Meaningful Chess Teaching Program

NEW  IN CHESS

**Karel van Delft**

# **Chess for Educators**

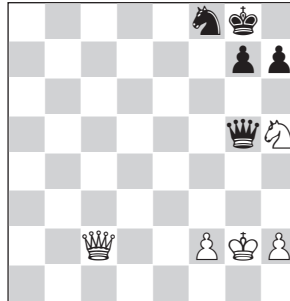
How to Organize and Promote a Meaningful  
Chess Teaching Program

**New In Chess 2021**

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# Introduction



Chess is a playground for the brain. Children enjoy playing it, and it poses fascinating challenges to their brain. But the game also widens their horizon. Chess teaches us life lessons – for example, that you can solve one problem with another, as in the above diagram. The white king is in check, and his knight is attacked. One move solves both problems: 1. ♖f3. Another example of an insight that children can pick up effortlessly during a chess lesson: at the chessboard, you always have to look first what your opponent can do, and this is just like in traffic – if you don't look what others are doing, accidents may happen.

I have given chess lessons to all kinds of groups of children for the past thirty years, and have also immersed myself in the psychology of this wonderful game. I have come to the conclusion, just like many of my colleague psychologists, that chess is a metaphor for life. You can learn to shape your personality, and develop self-knowledge, self-confidence, self-management and a 'growth mindset': 'looking, thinking and doing', judgement and planning (the latter is also the title of a book by former World Champion Max Euwe).

Chess can contribute to the cognitive, social, emotional and meta-cognitive development of children. For children with special needs and other groups, chess can also be a means for empowerment. It helps them to develop self-respect, and to get a grip on themselves and their environment.

In other words, especially for children, chess has many benefits. What are these exactly, and how can chess have a positive influence on the education of children? That is what we examine in this book. We will discuss didactics and teaching methods, the organization of school clubs,

scientific research on the benefits of chess education, and chess as a means of emancipation within the scope of school chess and special needs groups.

Variety, fascination and participation (being actively involved in a learning process) are the cornerstones. Likewise, the key to the activities is that pleasure and learning are the main things, while winning is a derivative.

There is a distinction between competitive chess and educational (instructional) chess. Both forms include similar aspects, like: learning to play chess, deliberate practice (a well-thought-out way of learning and training), didactics, empathy from teachers and the application of psychological insights (with regard to teaching methods and self-management).

With school chess, the emphasis is on education, personal development, enjoyment, and, certainly in the case of pupils with special needs, 'empowerment'.

With competitive chess, the accent is on achieving results. Here, more time is devoted to chess, the level is higher, and more themes and techniques are discussed. Also, the role of parents is often more important.

In both competitive and educational chess, there is still a world to be won in the area of the contents and the structurization of training. A lot is already being done in many different countries all over the world. I will give an (of course, inconclusive) overview in Chapter 1 below.

A lot of scientific research has been done on the question of which effects chess education can have. It may be that this question is wrongly formulated. A better question seems to be: which combination of which chess-teaching methods and which form of didactic coaching can lead to optimal learning effects for certain target groups, and in which circumstances? In other words, it's all about combinations – in the same way that the combination of hydrogen and oxygen produces water.

Much research has been done into the benefits of chess for education and for personal development. Often this involves experimental and quantitative research into, especially, cognitive aspects. Benefits are possible partly thanks to the intrinsic characteristics of the game, and partly thanks to the teaching methods and the stimulating role that can be fulfilled by teachers. But research has also been done into social, emotional and meta-cognitive effects.

Children like to learn via playing. This is a very effective way to learn. Chess fits well with this idea. During a chess lesson you are going out on an adventure, it's a marvellous and exciting voyage of discovery. On the one hand, you let yourself be surprised ('in search of the unexpected'), on

the other hand you are thinking systematically (chess thinking is based on pattern recognition, reasoning with the help of rules-of-thumb, and calculation, i.e. 'if this, then that'). The 'seventeenth chess piece' (Lasker) also plays a role. That seventeenth piece is you, with your personality, your emotions, your willpower, and your way of thinking.

Chess is a metaphor for life: you analyse, make plans, take decisions and search for creative solutions (cognitive). You learn about self-management, taking blows, and dealing with challenges (emotional). You discuss positions with others (social). You learn to reflect on your behaviour and on situations (meta-cognitive).

In chess instruction, content (for instance, tactics, openings, endgames), methods (for instance, discovery learning, frontal teaching, working in small groups), circumstances (for example, noise in the classroom, the time of day) and the role of the teacher (empathic or not, stimulating or not) are relevant factors. The question is what the influence of these factors is on the results of the research. Certain combinations of content, methods, circumstances and role of teacher can have more effect than others.

If you incorporate all kinds of different research in different combinations into one grand-scale 'meta-analysis', then the enormous amount of data may cause you to miss certain specific relations (subpopulations). Moreover, different learning effects may take place with different pupils. Chess may be especially helpful for one pupil to learn to deal better with defeat, while another will mainly learn to think more creatively – and so on. Also, certain teaching methods may be better suited for children of a certain age. Besides, there are often differences between boys and girls. In much of the research, this distinction is not made. Because there are so many variables playing a role, it is difficult to discover a very large effect on a single dimension in quantitative research.

Moreover, effects don't need to be limited to the development of practical skills that are also applicable in other domains of life (the 'transfer issue'). A positive self-image and learning attitude may also be developed, providing a child with insight in, and a grip on, its own mind and its environment (empowerment).

In fact, scientific research on the effects of chess on life skills has produced only a limited amount of evidence of such effects so far. It's not only that there is such multitude of variables, but specialists like Fernand Gobet have also criticized the methodology of much research that has been done. In Chapters 19 and 20, we will go deeper into the different methods of research that have been used, the issues that can play a role in research, and how research may be conducted in the future.

Practice teaches us that there are many examples showing that children benefit from chess instruction in many different ways. They have fun, and they derive self-confidence from it. This is an argument in favour of 'blended research': besides quantitative (statistic and experimental) research, also qualitative research (observations, interviews, taking stock of experiences, and the like).

When pupils enjoy chess lessons, and derive self-confidence from them, then that is a beneficiary effect. Children as well as parents and teachers will notice this.

In this book, we also pay special attention to specific groups of children, for example girls and special needs groups.

Girls play chess less often than boys, and perform less well on average. They often have a different learning attitude. Often, in research, no distinction is made between boys and girls. In cases where this distinction is made, often differences in learning effects become apparent. We will elaborate on this in Chapter 13.

Research and practical experience teach us that chess can play an important role for the personality development and emancipation of groups of people and children with special needs. Chapters 8-12 and 14 are devoted to this subject.

This book provides insights and practical methods. Its content is based on scientific research and practical experience. Teaching chess in primary schools can be simple: you explain a few things to children, and they play a game. But it's possible to do more.

Karel van Delft  
Apeldoorn, December 2020

## CHAPTER 3

### **Pre-school chess**

What is the earliest age when children can learn to play chess? What is the best way for them to learn chess? In this chapter, we will discuss insights and experiences with children under 6 who learn to play chess.

You can use insights when you are developing a talented child towards top performance. You can use insights in order for chess instruction to benefit the personal development of children. And then you can use insights to develop both performance ability and personal development.

#### **Research**

Scientific research on very young chess-playing children is scarce. More information can be obtained in practice, by means of interviews and observations. Accounts in books and on websites can give anecdotal information. One or two people, like Laszlo Polgar, for instance, have developed their own theory.

Insights can also be extracted from research on the talent development of infants in areas other than chess. Scientific literature on developmental psychology and cognitive psychology also provides insights.

It may be useful to make a single methodological remark about research on chess education here. In many articles, the blessings of chess instruction are praised. Chess education is supposed to be good for almost anything, e.g. concentration, creativity, mathematics, etcetera. This is supposed to be the result of a transfer of learning effects to other domains. Many scientists, however, are of the opinion that transfer only takes place if the skills learned are also part of another domain.

There is little methodological research with a good scientific basis. A lot of scientific research on the presupposed transfer effects and the benefits of chess instruction is shaky, as the researchers Prof. IM Fernand Gobet and Dr. Guillermo Campitelli argue in an article called 'Educational benefits of chess instruction: A critical review'. This article is discussed in Chapter 19 of this book.

Often, researchers do not explain, or do not explain clearly, what the contents, methods and time schemes are of the chess lessons they have investigated. Often, also, no distinction is made between boys and girls.

What is it in those examined chess lessons that causes all these different effects? Is it, for instance, the French Opening, the visualization of tactical variations, or the logic of rook endings? Or does a teacher's

empathy play a role, or perhaps the size of the group, or the cooperation between children? Or the fact that they are acquiring knowledge on either a weekly or a daily basis – or, on the other hand, that they do a lot of exercises? Are possible learning effects the result of intrinsic characteristics of the chess game, and/or are they a result of the way in which chess lessons are given?

### **What is talent?**

There are various definitions of talent. It can, for instance, be used as a synonym for ‘giftedness’, which signifies that somebody is capable of performing well in a certain area.

In this chapter, talent is viewed in its denotation of ‘aptitude’, in other words: the potential to quickly and aptly develop cognitive, social, emotional and physical functions to perform a certain task.

The required potential differs with every task. For singing, running or playing chess, partly different functions are required – or to a different extent.

Chess makes demands on a person’s cognitive development. Memory is important, since the basis of chess thinking is pattern recognition. You have to perceive, judge, analyse, reason, visualize, think ahead, solve problems, take decisions, and make plans. It’s also important to be able to think from the perspective of the opponent.

Other important skills are concentration, patience, perseverance and self-control (do not capture a piece right away, maybe your own king will be mated).

In the denotation of ‘aptitude’, talent is a matter of ‘nature’, i.e. genetically determined qualities which are already present at birth. Besides nature there is also nurture, which is a generic term for all the environmental influences on one’s development.

Nature and nurture both play a role in the development of people. For instance, they can both be found in Prof. Elshout (University of Amsterdam)’s definition of performance ability as the resultant of talent, good training circumstances and motivation.

‘Aptitude’ is beginner’s luck, but is in itself not sufficient to develop good performance ability. Research shows that the quality of education and upbringing can make a 30-point difference in IQ-tests.

### **How to start young**

You can start teaching chess as soon as a child shows interest. Interest can arise if children get acquainted with chess in a way that appeals to them.

Children may see a chessboard, or may see other people play chess, or may see a book with nice pictures, or a video. Role models can be an important factor. Infants like to imitate older children and adults.

Children are by nature curious and inquisitive. They want to discover the world.

Children are motivated to learn if they see the use of it for themselves, and if they can give shape to it themselves.

It doesn't make any sense to force a child's development – on the contrary, this has a contra-productive effect.

If, cognitively, children are not far enough developed to play chess, then it makes no sense to teach it to them. They won't understand it, won't enjoy it, won't make any progress, and won't have any success experiences. This is demotivating for them.

A baby is not yet able to walk or talk. To be able to learn certain things, the brain of a child has to have reached a certain level of development. The tempo of development differs per child.

Many children have to be approximately six years old before they reach the level of cognitive development that is required to learn to play chess.

A survey from the Dutch chess federation KNSB shows that it has several dozens of children under 6 among its members.

## Examples

There are many examples of children who already play chess at three or four years of age. That does not necessarily mean that they will become top players later in life.

GM Loek van Wely took his chessboard with him to kindergarten. GM Susan Polgar was the under-12 chess champion in Budapest at four.

GM Roeland Pruijssers learned to play chess from his father when he was 3½ years old. The chessboard was put on the table seven days a week; 15 minutes in the morning, and 15 minutes in late afternoon. Henk Pruijssers taught Roeland according to the Steps Method. Starting at four, Roeland took part in tournaments; at five he won his first youth tournament.

Jutta Hempel (1960) from the German village of Flensburg was able to watch a chess game and reproduce it from memory when she was three. At four, she played games. At five, she was the best youth player of her home town. At six, she made a score of 9½-2½ in a simul against adults that lasted four hours. At seven, she could play six blindfold games simultaneously. At nine, she made two draws against an international master.

On the ChessBase website (<http://en.chessbase.com>) there is a story about the four-year-old Sparsh Bisht from India. When he was three years and ten months old, he saw his father playing chess on his laptop. He was

interested, and learned the rules of the game within a week. Four months later, he was taking part in tournaments. In a local event for under-7 players he came second.

Grandmaster Samuel Reshevsky (1911-1992) belonged to the world top. He was born in Poland as the youngest of six children. At five, he learned to play chess by watching games played by his father. His parents let him play against club players, and it turned out that he was talented. From his sixth year onwards, he gave simultaneous exhibitions throughout Poland, and later in Europe. Eventually, the family emigrated to the USA.

The American Kayden Troff became World Champion under 14 in Slovenia in 2012. In a radio interview in the USA he told that he had started playing chess by looking at games by his father and his older brothers. When he was three, he indicated to them that he wanted to play too. Later, their father gave lessons to the sons. Troff himself doesn't consider beginning at a young age to be a deciding factor. It's primarily important how much time you spend on chess. He trained two hours every day from when he was six, four hours a day from his ninth, and six to seven hours a day from his eleventh year. His training sessions consisted of several items, and over the years this shifted. For a large part, he studied openings and middlegames, and he played a lot of games, also blitz. For longer games he often turned to the Internet, because there are not many strong players living in Utah. He analyses many opening lines with the computer, and gets homework from trainers, like making game analyses and reading chess books.

Many grandmasters started playing chess when they were five or six. To become very strong, you don't necessarily have to start very early.

The 13th World Champion Garry Kasparov joined a chess club at seven in a Pioneers' Palace in the city of his birth, Baku in Azerbaijan.

World top player Levon Aronian learned to play chess from his sister when he was nine.

The American Paul Morphy (1837-1884) was ten years old when he learned to play chess. He grew out to become the strongest player of his time. In those times, ten years was a perfectly good age to start. Possibly, learning effects are less at a younger age, as in that period the brain has, cognitively, not far enough developed to analyse and reason about abstract things. It is imaginable that Morphy could even have become much stronger.

World Champion Magnus Carlsen learned to play chess when he was five, but at that point he wasn't interested in the game all the time. When he was eight, he became more motivated and started playing chess seriously. At thirteen, he became a grandmaster. Carlsen has a good

memory by nature, and has been able to concentrate well for long stretches of time from the first year of his life.

## Two years

Two-year-old children can already show interest in the chessboard. This interest can be stimulated. You can give an own chessboard and (coloured) pieces to infants. You can use the pieces to build small towers with the child, or place pieces neatly in the middle of a square. While doing this, you can mention the names of the pieces repeatedly. You can also put the pieces in the starting position and take turns putting the pieces somewhere – at random: a rook moves from h8 to c5 just like that. As soon as all the pieces are standing in the middle of the board, the game is ‘over’. If you use a chess clock, it’s almost like the real thing. You can have the chess programme Fritz play a game against itself by pressing the space button of your computer in turns. It is possible that an infant will already show interest in the movie ‘Lang leve de koningin’ (= Long Live the Queen) and in YouTube videos of chess-playing children or a chess-playing uncle. Looking at photos in a chess book or on a website is fun, too – certainly if the child recognizes people they know. A little later, a child might think it’s fun to put all the chess pieces on the board in the same array as they are standing in a diagram in a book. Colouring pictures with chess pieces is also a good idea, or playing with a garden chess set.

On her blog, GM Susan Polgar tells about her participation in the ‘First Congress on Pedagogics and Social Applications of Chess’ in the Spanish city of Buitrago. It included two lectures on chess in kindergarten, where infants from the age of two to five learn to play chess. She also told about a simultaneous display she had given in Venezuela, where the three-year-old girl Esmeralda Blanco turned out to know the rules of the game. One of the lectures was given by Adriana Salazar from Bogota, Columbia (a six-time Chess Olympiad participant), who demonstrated her teaching method in a workshop. She explained how she attracted the children’s attention during the chess lessons. Salazar starts by showing the chessboard in a fun way (a world of chocolate and vanilla), making use of songs. Her enthusiasm is an important factor. See the Spanish-language website [www.ajedreznelaula.com](http://www.ajedreznelaula.com).

In Lagomar, Uruguay, chess lessons have been given at a kindergarten to two-to-five-year olds for the past 25 years already. Chess teacher Esteban Jaurequizar said that the 200 infants get weekly chess lessons in the Centro Educativo Vaz Ferreira. With very young children, it is important to arouse their interest and then to keep hold of it. According to the chess teacher, a warm relationship with the pupils and continuous

interaction are a few of the things that contribute to this. Lessons should be fun, exciting, and full of energy. Young children like fantasy worlds, and chess lessons should tie in with this. Therefore, it is important to tell stories, and to use words the children know. Jaurequizar said that giving instruction to infants requires continuous attention and a lot of energy.

Both teachers said that it is very important to present new information very slowly and systematically, piece by piece, and in a fun way (stories, songs, showing things physically).

## **Potential**

Curiously, there are a number of children who perform extremely well at a very young age in the areas of mathematics, music and chess. Combinations of the three also occur – with boys as well as girls.

The eight-year-old Canadian girl Harmony Zhu became chess World Champion in her girls' age category in the United Arab Emirates in 2014. She is not only good at chess, but also at playing the piano. As a seven-year-old she already performed twice in Carnegie Hall in New York.

Performance ability is probably connected with a knowledge basis of a great number of patterns that are commanded by these children. There are no 'prodigies' in areas that demand a great deal of life experience. It is also clear that there are always adults who are guiding such children intensively.

In his book *We Are Our Brains*, the Dutch neurobiologist Prof. Dick Swaab explains how the development of the brain already takes shape in the womb, and how, especially in the first years of our lives, social circumstances are strong determinants for the further development of the brain. The implications this may have for education is discussed by psychologist professor Jelle Jolles in his book *Ellis en het verbreinen*.

It is clear that in cultures and social environments where a strong appeal is made to learning abilities at a very young age, there will be many more people who perform at a very high level.

Children like to play. Playing has an essential role in the development and the learning of children. By playing, children discover the world around them, and they develop knowledge, insights and skills in social, emotional, cognitive (also, creative) and physical areas.

Playing stimulates the development of the brain. It is best to offer chess instruction as playfully as possible, especially to infants. Playing is not only fun, it is also necessary – for children as well as adults.

Children have a great developing potential. Maria Montessori claimed that by nature children also have a great urge for self-development. She

summarized her view in her phrase ‘Help me to do it myself’. Teachers have to recognize what the needs and the strengths of children are. They have to anticipate this by creating the right learning environment.

Biographies of successful youth players show that they were given a lot of room to experiment and to develop their own insights.

For instance, teachers can present chess positions with a degree of complexity that a child will just be able to handle (zone of proximal development – Lev Vygotski). Explanation has to be brief and to-the-point. Too much information will distract a child’s attention from the essence, and will restrain its imagination. By asking questions, a teacher can guide the child in its search for the solution to a problem. The child has to draw its own conclusions. By doing this, it develops insights and creative skills.

For children to be able to experiment and to learn to act independently, it is important that they be given ‘maximum autonomy’. This means that they get freedom to act to the extent that they can handle it.

There are ‘sensitive periods’ in the development of a child. During these periods, a child is optimally able to learn something, like for instance a language. According to GM and psychologist Nikolai Krogius (*Psychologie im Schach*), chess players perform worse tactically if they learn to play chess only after their tenth year.

Developmental psychologist Jean Piaget distinguished four developmental phases in cognitive development, starting from the premise of a burgeoning potential within children. He took little account of stimulating environmental factors.

If children think differently in every phase, then they will also learn differently in different phases. The question is then what the optimal circumstances and teaching methods are in each developmental phase.

In any case, it is clear that the development of thinking moves from concrete to abstract. That is also the most effective order in which chess is taught to children.

Intelligence does play a role with chess, but this role is limited. This has become clear from research by, among others, Merim Bilalic.

More intelligent children learn faster, and highly gifted children often have other learning styles. But performance is mainly determined by training and motivation. If you are not motivated, then you will not train enthusiastically. If you don’t get good training, you cannot learn much.

People identify and arrange realities with language. An interesting question is: what role does language play with chess and with learning chess? With language you can transfer knowledge, and make yourself familiar with it. With language, you can ask questions.

## CHAPTER 21

# Alphabet of methods and teaching tips for chess education

What you do in a chess lesson or training depends on a number of circumstances – for example, the size of the lesson group, the subjects under discussion, the chess level of the pupils, their thinking level, as well as available tools and possibilities.

Below we give a number of methods and teaching tips a teacher can use. Not everything is applicable for everyone, let alone in equal measure. The idea is that trainers adopt insights and implement them as part of their activities. By developing routines, you will be able to apply a great number of insights automatically. A number of these subjects are also quite suitable for a checklist.

A good training is like a tasty and nourishing dish. There is a good balance between the various ingredients.

### Abstracting

Abstracting is deriving the general from the particular. This is a useful thinking skill. If pupils formulate the essence of a position in a rule of thumb, they are abstracting. This requires thinking actively about an experience and a theme. This leads to more insight, and better storage of a subject in the memory. By coupling a picture (pattern) to a concept, you will make the concept applicable in similar situations in the future.

### Acronym

An acronym is a letter-word. It is constructed from the first letters of a number of words. It can serve as a mnemonic device. For example: if one of your pieces is under attack, you can use CIEPC, which stands for Capture, Interpose, Evade, Protect, Counterattack.

### Activating previously obtained knowledge

Knowledge is understood best when it is presented in a meaningful context. It is an important teaching principle to connect new knowledge with relevant previously obtained knowledge. With this aim, a teacher can start a lesson by repeating knowledge and asking pupils questions about it.

### Active learning

Pupils will learn more and better if they are actively occupied with a subject. Explanation about a subject provides basic information and gives

direction to pupils' thinking. Being actively involved with it (discussion, playing games, making exercises, etc.) will give pupils more insight than merely listening passively. Active learning motivates pupils.

### **Activity**

If you want to win in chess, you have to make your pieces active. Activity is the difference between possibilities and limitations. Take a position, and describe the possibilities and limitations for both sides.

### **Adventure**

Chess is a playground for the brain – it is a great adventure. You can present a game as an exciting tale to children. Who of the children plays soccer at a club? Well, has your soccer coach ever told you about cooperation? Chess is also a team sport – all the pieces should cooperate. The white queen immediately joins the attack, but is that wise? What do you think? And what about the white king, by the way? Has he never heard of castling, and defending? Or is castling only for scaredy-cats? Give examples, make comparisons, ask questions, tell anecdotes. Make the game alive.

### **Alphabet game**

Pupils get five minutes to write down an alphabet with as many chess terms as possible. They can do this either individually or in a group. Next, the teacher discusses the lists with the complete class. The pupil who has filled in the most letters, wins. Concepts that are unknown, are explained briefly.

### **Alternation**

Alternation often improves efficient and effective learning. You use your energy better, and the training is more fun. You can, for example, alternate doing subjects with learning ones, or easy tactical exercises with difficult ones, fun subjects with boring ones, or individual learning with cooperation.

### **Analysing games (see also Game quiz)**

You learn a lot by analysing games – especially your own games, because then you learn from your own mistakes.

If pupils notate their own games, the teacher can later discuss these games with them. Obviously, the teacher has to keep in mind the level of the children, and should only discuss themes that are in accordance with their level.

For young children, it is difficult to notate an entire game. You can, for instance, agree that they write down the first ten moves. A disadvantage of this arrangement is that you can only discuss openings.

The DGT board is a beautiful solution. These boards (which are also used in top tournaments) record moves and save them in a Fritz computer program. From there, you can play through the game. A teacher can also make prints of the games for his pupils.

Also, a teacher can notate an entire game himself every now and then, while the children are playing. In one of the following lessons, the teacher can then present the game on a demonstration board or a digital blackboard, and discuss the most important moves. The teacher can demonstrate these, but the pupils can also do this themselves. The teacher can stand in the back of the classroom, and add remarks or corrections to the pupils' explanations. It is especially useful if the teacher helps the children to find the right moves by asking questions ('discovery learning').

The teacher can encourage children to play a game at home and notate it. Children often enjoy playing against their father, mother, brother or sister, and bringing the game along to school. The teacher can also show a chess book and discuss a game in it.

It is useful if children have their own chessboard in class, on which they can play the moves of the game that is being analysed. This gives direction to their energy, and enables them to try out their own ideas.

If children enter games in Fritz themselves, and demonstrate them on a digital blackboard, they will learn to work with the Fritz program without effort. The teacher explains the way the program works.

When children play games in a schools' championship, the teacher can record fragments on video, or make pictures. Later he can show the footage in class (possibly also on his own website) and discuss it. The teacher can make a round and ask all the participants what their most remarkable experience or learning moment was.

The teacher can play against a chess program, like Lichess, together with the class. At each move, the teacher asks the pupils to give suggestions, and their reasons for them. He also gives suggestions himself. The class chooses a move together. As this can be quite time-consuming, the teacher can also play a few moves every now and then and explain what is happening on the board.

The Fritz chess program offers the possibility of activating the 'crazy' or 'drunken' mode. Playing such a game against the program may easily turn into a kind of penalty shootout. Children love it!

Variety makes lessons more fun. The teacher can make a video of a game between two children with a camera. He can upload the memory card of the camera on his laptop, and present the video on a digital blackboard.

He can stop the video at any move. The pupils play through the game on their own boards. This way, each move can be discussed.

### **Analysis questionnaire**

The 'Analysis Questionnaire' has been created by Karel van Delft and IM Dharma Tjiam. This questionnaire consists of chess-technical as well as psychological questions, plus a survey of tactical motifs and the Elements of Steinitz. Chess players can fill in the list and discuss it with a trainer or with training partners. Trainers can also use the list for an oral interview with pupils. An option is to use only a part of the list, or to shorten the list for beginning chess players.

### **Anti-blunder weapon: take your opponent seriously**

You won't get an easy win if you give your pieces and pawns to your opponent for free. How can you avoid blunders? By taking your opponent seriously. How much percent of the moves in a game does your opponent make? Fifty percent! That's half of all the moves. Therefore, it is wise to first look what your opponent can do (moves, plan) before you make a move yourself.

You can also think of the 'street-crossing rule': before you cross a street, you look if there is any traffic approaching. Or else...?

### **Apps**

There are many chess apps, i.e. programs to play chess on mobile devices. Some are free of charge. The teacher, or a pupil, can explain how apps work. This gives extra opportunities to pupils to play chess.

### **Apronus en Lichess mini-games**

Mini-games are chess games with only a couple of pieces. On the Apronus website you can make mini-games both with and without the kings, see [www.apronus.com/chess/diagram/editor](http://www.apronus.com/chess/diagram/editor). Click on the 'empty' button and then slide your pieces and/or pawns on the board, then click on 'export'. On the next page, click on the second link. Then you can play a game.

You can also make mini-games on Lichess.org. Here you do have to put kings on the board. On the Menu page of [www.lichess.org](http://www.lichess.org) you go Tools and then Board Editor. You empty the board and slide pieces and/or pawns on the board. Using 'analysis' you can make moves for both colours. With 'Go on from here' you can play against a computer program or against a friend.

### **Arrangement of the classroom**

It is important to arrange the classroom in the right way. Pupils have to have a good view of a demonstration board or a digital board. If a

classroom is messy, then this will have a distracting effect. It is also not in line with the norm that you have to behave seriously during lessons.

### **Assessment of positions**

If children know a little more about tactics, and regularly play chess games, it is time to start discussing chess games. You don't always have to discuss an entire game. Quality goes before quantity. You can also assess a few positions from a game.

You can go through Steinitz's List of Elements with the children.

Projecting the position on a digital blackboard with the help of a chess program is often more practical than using a demonstration board. You can enter variations and it's easy to return to the game.

For the assessment of a position, three questions are very important: 1) What does my opponent want, and what can he do? 2) Where do I put my pieces? 3) Which pieces do I want to exchange? Answering these questions leads to a search strategy (see elsewhere in this chapter).

Our Masterplan is, of course, to mate the enemy king. Most of the time you can't do this immediately. Therefore, we have to get a good position first. We can achieve this by putting our pieces on active squares, and by letting them cooperate. First we start collecting small advantages, like winning a pawn or conquering an open file (a highway for the pieces). We collect small advantages with the help of small plans. You can make such a plan by talking to yourself in silence (verbalizing) about what is possible and what isn't. While doing this, we constantly pay attention to how active our pieces are, whether we have any influence in the centre, and the state of our pawn structure. Only after we have obtained a number of advantages, we are strong enough to set up an attack.

You can compare the pawn structure to the skeleton of your body. If it collapses, your whole body collapses. To make this clear, children can play games with each other. After a few minutes, the teacher stops the games. The children take the pieces from the board. How are the pawn structures looking? The teacher makes a round of the boards with the pupils, and first asks them to name the strong and weak aspects of the respective pawn structures. Then the teacher explains what the strong and the weak aspects are.

### **Attack on the king**

The goal in chess is to mate the enemy king. To achieve that, you have to attack the king.

For this purpose, it is useful to develop all your pieces in the opening ('all your friends want to join the party'). The teacher can show various

miniature games in which one of the kings is quickly mated. A suitable opening is the King's Gambit. Here, children learn that the activity of their pieces is much more important than winning or losing just a little pawn. What do you prefer? A pawn that doesn't do much, or highways for your pieces? In chess literature, there are plenty of examples of attacks on the king. The teacher may also use his own games, or games by pupils. It is useful for a teacher to collect training material and sample games that relate to the subjects he brings up.

### **Automation**

Automation is making yourself familiar with knowledge and skills in such a way that you can apply them automatically. That is practical, since it allows you to utilize a great deal of your knowledge in your games. For example, you automatize knowledge about tactical motifs (like a pin, or a discovery attack) by solving a number of chess exercises on this theme. The more you train, the better you will be able to recognize themes, also during games. The question is how much time the teacher spends on this in chess lessons. If he gives chess instruction for only 30 minutes a week, it may easily become boring if he only trains tactical exercises. He can also spend ten minutes on one tactical theme in each lesson and, besides this, discuss games and apply variety in subjects and methods. During these games and varied subjects, the teacher can also identify the tactical motifs that crop up. Variety makes chess fun. Pupils who enjoy chess, and get fascinated by the game, will play it more often, and then they will inevitably automatize themes. Ambitious pupils have to invest working hours, that is how it is with all sports. They can, for instance, make tactical exercises for 20 minutes every day to automatize their knowledge and skills.

### **Baby studies**

Baby studies are endgame studies with a maximum of five pieces. Some of these, like several ones by Réti, are suited for discussion with school children. The nice thing about studies is that they are often paradoxical. Just like other endgame studies, baby studies are useful for the stimulation of creative thinking.

### **Balance**

To learn to play chess and to become a stronger chess player, you have to have a balance between various components (building-blocks). There has to be a balance between knowledge and ability, in other words: theoretical know-how and practice. Components of a teaching programme

also need to be balanced. A beginner will benefit greatly from knowing (and being able to apply) the ‘three golden rules of the opening’, but detailed knowledge of openings is not so relevant. It is useful to devote attention to diverse study components, like tactics, discussing own games, discussing sample games, opening traps and simple endings. With all these components, it is important that pupils are actively occupied, converting their knowledge into ability. World Champion Mikhail Botvinnik had a chess school in Moscow. One of his well-known comments was: ‘You can’t teach chess, you can only learn chess.’

Besides regular study components, there are also many ‘varia’, ranging from giving talks to playing against a computer together. You can spend roughly half of the time on actually playing chess games.

A teacher also has to look for a balance in the design of his lessons. Spending an entire lesson on one subject may easily get boring for many children. Too many subjects may lead to unrest in class. It is not necessary that all the subjects return every week. A teacher will be wise to identify cross-bracings between study components. When discussing the pupils’ own games, for example, the teacher can point at tactical motifs.

### **Basic pattern of lessons**

Lessons can have a fixed basic pattern. For example: 1) Question round; 2) Tactics; 3) Game discussion; 4) Varia; 5) Competition. Variations can be introduced in every component. Also, one of the lessons may be entirely dedicated to the ‘Varia’ part, like, for instance, making chess posters.

### **Beginners**

For young children and beginners, useful learning materials and methods are, among others, Part I of the Steps Method, or the Chess Tutor DVD’s (both of them are available in various languages), CD-ROM Fritz & Chesster, mini-games with a few pieces, the Chess Course books by GM Lev Alburt, a quiz with yes/no questions for beginners (sit down if you don’t know the answer), and talk chess (play a game against each other and mention the reason for your choice at every move).

App: Chessmatec.com.

Websites: Raindrop Chess, Troyis, Jeugdschaakpagina (Dutch), Chess Kids Academy, Chess for Heroes, Lichess.org, Chess.com, Bill Wall (opening traps) and Professorchess.com.

Films: ‘Knights of the South Bronx’, ‘Searching for Bobby Fischer’, ‘Lang leve de koningin’ (Dutch) and ‘Chess Fever’. If you use the search term ‘chess’, you will find many videos on YouTube.



# Chess Teaching Manual

Created by International Master Tom O'Donnell



**Produced by the Chess Federation of Canada**

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# INTRODUCTION

The Chess Federation of Canada is a charitable organization whose mandate is to promote and encourage the knowledge, study and play of the game of chess in Canada. The C.F.C. organizes National Championships and provides funding for the winners to go on to the World Championships. In addition, the C.F.C. has sent a team to the World Chess Olympiad each time it has been held (every second year) since 1964.

The purpose of this manual is to encourage the playing of chess by young people. Chess has been shown to improve academic performance. A youngster taking part in a chess program develops:

- critical thinking
- logic, reasoning, and problem solving abilities
- memory, concentration and visualization skills
- confidence, patience and determination
- poise
- self-expression
- good sportsmanship
- children who participate in chess programs improve their self-esteem

It is not necessary for the teacher using this manual to be a good chess player - or even a chess player at all. The course has been designed to take the teacher step-by-step through the basics and onto more advanced strategies. It is hoped that we have done our job well, but of course this is the first edition of this manual (experimental, if you will) and there is always room for improvement. If you have any comments or questions concerning this manual, we may be contacted by regular mail:

Chess Federation of Canada  
2212 Gladwin, E-1  
Ottawa, ON  
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Or by e-mail: [info@chess.ca](mailto:info@chess.ca)  
Homepage: <http://www.chess.ca/>

The author is a four-time Olympiad team member, and holds the title of International Chess Master, which he received for his results in international competition. He has taught chess to grade school children individually and in groups for almost a decade.

Duplication of the contents of this manual is permitted within schools for educational purposes only.

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# CHESS SUPPLIES

*Chess equipment suited to the needs and budgets of schools.*

## School Tube

Catalogue # 3108

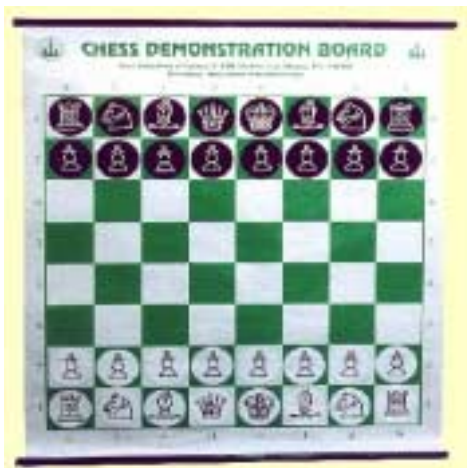


A complete chess set for schools. It contains solid plastic chess pieces (with a King that measures 3 3/4" tall) that will not break even if stepped on, a laminated paper board with alphanumeric borders and 2" squares which can be easily wiped down to clear up dirt or spills. The entire set is contained in a durable tube for easy storage.

| <u>Quantity</u> | <u>Pricing</u> |
|-----------------|----------------|
| 1 to 11         | \$11.95        |
| 12 to 23        | \$11.45        |
| 24 to 47        | \$10.95        |
| 48 to 95        | \$10.45        |
| 96 to 191       | \$9.95         |
| 192+            | \$8.95         |

## Demonstration Board

Catalogue # 3108 Price: \$19.95



Show the entire class what you want without having them all crowd around a small tabletop set. The board measures 27" wide by 32" long with 3" squares and can be hung anywhere. Vinyl pieces stick to the board and can be moved to show any position you desire. The entire set can be rolled up and easily stored in its own convenient storage tube.

## Aradora Chess Clock

Catalogue # 3227 Price: \$44.95



Sturdy plastic clock measures 6 3/4" x 4 1/4" x 2 1/4" with a large, easy to read face and seconds counter. This Romanian built clock also comes with an easy to see lever instead of buttons and a safety for locking the lever in the off position for travel.

Place orders by Phone at (613) 733-2844 (M-F 9-5 EST) or by FAX (613) 733-5209 or by e-mail at [info@chess.ca](mailto:info@chess.ca).

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- Pairing Card sample
- Sample Swiss System crosstable
- Blank Swiss System crosstable for use in tournaments













## Teacher's Introduction to Chess

Don't know anything about chess? Don't panic. If you follow this guide you shouldn't have any problems. Even if you do know something about chess, the students will probably be able to beat you fairly easily most of the time after a little while. Like learning how to play a musical instrument, or a new language, it is a big advantage to learn how to play chess as a youth.

To start, you need a demonstration board. This is simply a chessboard that can hang on a nail, and uses some method for keeping the chess pieces on it. The demonstration board should have the letters "a" through "h" running along the top and bottom, and the numbers "1" through "8" running along the sides. The reason for this is that all 64 squares on the chessboard can be identified by a letter-number combination.

Each demonstration board comes with a set of 32 pieces. These are divided into two separate groups: 16 of which are "white" and 16 of which are "black". The actual colours don't matter (often "white" pieces are in reality red); but they must be distinct from each other.

For each side, their army of men consists of the following:

- **Eight (8) pawns:** The pawn is easy to identify. It is the smallest piece, and the most plentiful. On the following sheets, it is identified by the symbol  or 
- **Two (2) knights:** The knight looks like a horse. It is identified by the symbol  or 
- **Two (2) bishops:** The bishop looks like a big pawn, with a slit in its head. It is identified by the symbol  or 
- **Two (2) rooks:** The rook looks like a tower or castle. It is identified by the symbol  or 
- **One (1) queen:** The queen looks like a head with a bunch of spikes coming out of it. Usually the spikes have circles at the top. It is identified by the symbol  or 
- **One (1) king:** The king has a cross on top of it. It is identified by the symbol  or 

If you have chess sets in the class, the demonstration board pieces and the pieces used for the chess set will most likely look similar.

That's all of the equipment you will need to teach the class. Now onto the lessons.

### 'Twas the Night Before...

For those teachers who know nothing about chess, or for those a bit shaky on the rules, explanation sheets have been provided for the instructor to read. The intent of these sheets is to give you, the instructor, a crash course on the concept in question. As well, it is hoped that all possible questions have been anticipated. It is suggested that before you teach a specific lesson you read the explanatory material on that specific lesson thoroughly. Try to answer the questions the students will be given for a specific lesson before attempting to teach that lesson.

It is not necessary to read all of the lessons before teaching the first lesson. You need only read one lesson at a time, teach that lesson, and then move onto the next lesson.

### Lessons

Each lesson is designed to take no more than ten (10) minutes to explain. A typical hour will consist of five to ten minutes of explanation and an exercise sheet based on the lesson that will take ten to fifteen minutes. Many initial lessons have tasks that are designed to reinforce new concepts introduced in those lessons. In order to perform the task it is necessary that you have a sufficient supply of sets and boards (one set and one board for every two students will suffice). Future lessons provide students with the opportunity to play against each other in practice games, encouraging them to learn individually and from each other.

The exercise sheets contain few words, particularly the absolute beginner sheets. This is intentional, so that the students can work independently without constant teacher direction. In the future, we hope to be able to provide supplementary sheets for both keen students who would like to do extra work at home, and for those who would rather work on a sheet than play on a chessboard.

## Running a School Chess Club

Why run a chess club in your school?

Perhaps you are a chess enthusiast with free time. Or a teacher who is interested in chess and who sees the benefits which chess gives to children. Or perhaps you know nothing about chess, but the principal is angry with you and this is your punishment.

It doesn't matter. If you follow the step-by-step instructions in this manual you will be running a chess club in no time. Let's begin.

### Location, Location, Location

What's true of real estate is also true of chess clubs, but in a different way. You choose the location of your house based in part on all of the neat distractions nearby (e.g. parks, libraries, tennis courts, etc.); you choose your chess club location based on the *lack* of distractions. So, if possible, don't have it in the hallway, in the music room, or in the gymnasium. There are too many other neat things for kids to do – noisy neat things.

Try to pick a place that's reasonably quiet. That's top of the list. Also pick a place with plenty of open floor space. Children generally prefer to play on the floor, which is good, since they don't make as much disruption when they accidentally knock pieces onto the floor.

If your club is held during lunch hour, try to arrange for as many garbage cans in the room as you can get. And locate them strategically throughout the room. There are few things as disruptive as having someone knock over someone else's half finished (and completely forgotten) juice box on the floor. Bedlam may ensue.

### Equipment

Of course you can't play if you don't have sets and boards. At first, you might ask the children to bring their own equipment, but it is ideal if you don't have to rely on their memory. This will require a modest expenditure. Let's do some arithmetic.

Suppose you have twenty children in your club. At one set and board for every two children you will need ten sets and ten boards. You may be tempted to buy the least expensive set and board you can find. That could be a big mistake. Much of the cheapest equipment is cheap for a reason. It falls apart after very little use.

You should purchase *solid* plastic pieces. That way when someone steps on a piece - and someone will at every meeting – you won't have to scurry to find replacements for the shattered piece.

Also it would be a good idea to choose vinyl or paper boards over folding cardboard ones. The problem with cardboard is that the boards break in half very easily and if someone spills their yogurt or drink on the board it will begin to deteriorate pretty fast.

Vinyl boards have the advantage of being very durable and easy to wipe clean. Paper boards are much cheaper but rip easily and deteriorate pretty fast if food or drink is repeatedly spilled on them.

If your goal is to combine good quality with lack of expense, buy paper boards and laminate them. They will last at least a couple of years, and they cost very little (under \$1 per board).

It is important that you get ones with notation along the edges (the letters "a" through "h" along the top and bottom, and the numbers "1" through "8" along the sides) if you wish to use much of the instructional material in this manual. The letters and numbers are used to identify the squares on the board, much like those on a map or on the board game Battleship.

### Okay, What's the Bottom Line?

The total cost of ten sets and ten boards should run to no greater than \$100 - \$150. That may seem like a rather large initial outlay, but that works out to \$7.50 per person, at most, for an entire year. Of course, with reasonable care, the sets and boards will last a lot longer than a year, so the cost per person is even less. For a list of some of the items sold by the Chess Federation of Canada see the product flier and catalogue that came with this manual.

### Supervision

In order to supervise chess it is not necessary that you play chess. If you don't play chess, deputize one or two of the more knowledgeable and mature members to act as arbiter (referee) in case of dispute. If no one seems to know what is going on, or if the dispute is cannot be resolved using common sense, please refer to the section: **Simplified Rules of Chess**, later in this manual.

# Lesson 1 (part one)

## Algebraic Notation (Sheet 1-1)

### Objective:

- Teach students how to read and write moves using algebraic notation.

### Skills Developed:

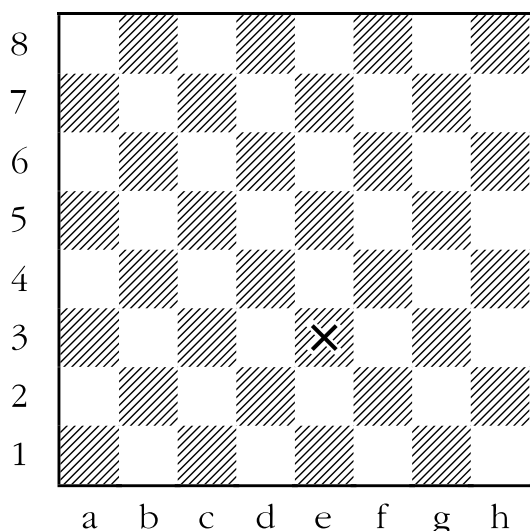
- Concepts of horizontal and vertical.
- Able to read grids such as maps and line graphs.

Algebraic notation is the way in which chess players read and write moves. Each move is an abbreviation of the piece that will move, followed by the destination square of that piece.

The names of the squares are a letter-number combination. The way you “read” a chessboard is the same way you read the co-ordinates on a map, or those found on the children’s board game Battleship.

Another way to describe to children the names of the squares is to compare them to the names of people. Just like people have a first and last name, so do the squares. The only difference is that, for each square, its first name is a letter and its last name is a number.

At the top of the next column is an example of how to read the squares on a chessboard:



The “X” shown above is on which square?

The first thing you do is look along the row of letters at the bottom for the letter that is in line with the “X”. In this case, the letter “e” is directly below the “X”.

The second thing you do is to look along the row of numbers located vertically on the left side of the board to find the number that is in line with the “X”. In this case, the number “3” is directly to the side of the “X”.

Putting the two parts together, you get “e3”, which is the name of that square.

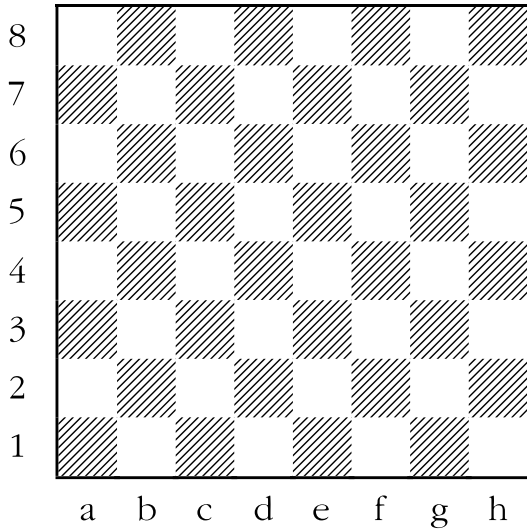
The reason that it is a good idea to get the children to identify the squares by their proper names is to avoid confusion. If you are teaching a dozen kids, for example, and you ask the question, “Where should the black queen move?” you will get answers like “To the left” or “Diagonally up” which require further clarification. Algebraic notation avoids this problem since each square has a unique name.

A way to introduce the kids to algebraic notation is to place a piece on a square on the demonstration board, and ask, “What square is this piece on?” Experience has shown that repeating this procedure a dozen or so times will result in half of the players grasping the system. The sheets will merely reinforce this knowledge. For the other half of the students, the sheets will serve as further examples to practice. Additional reinforcement can be provided if students are given the chance to work on the sheets in pairs.

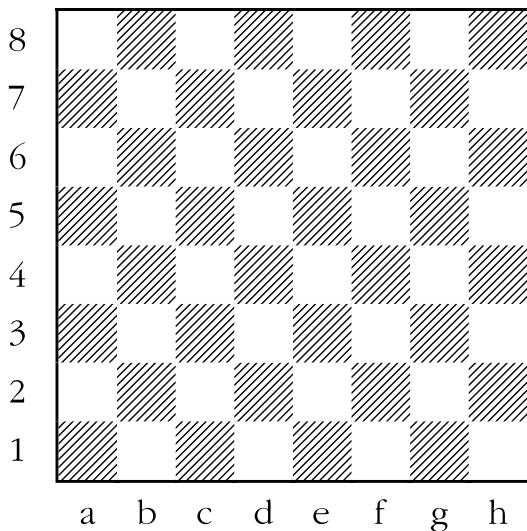
Also, try using different explanation strategies to help students understand the concept of algebraic notation. Use examples such as, “It’s also like a crossword puzzle, when you go ACROSS first, the DOWN,” or, “A plane flies along the runway, then goes up.” Be creative if it helps students relate the concepts to realistic situations.

# Sheet 1-1: Names of Squares

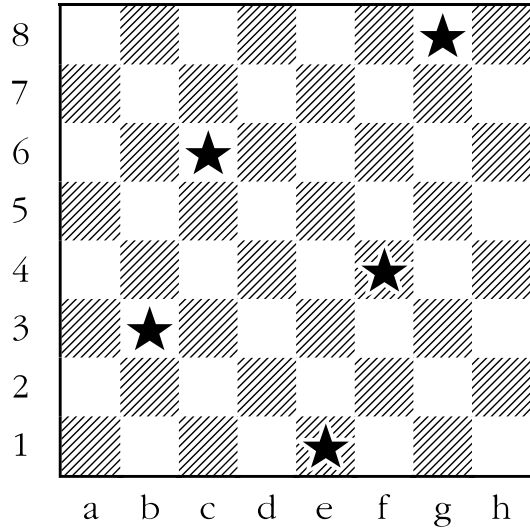
1. Put an "X" on these squares:  
a1, e4, c2, g7, h5, b8



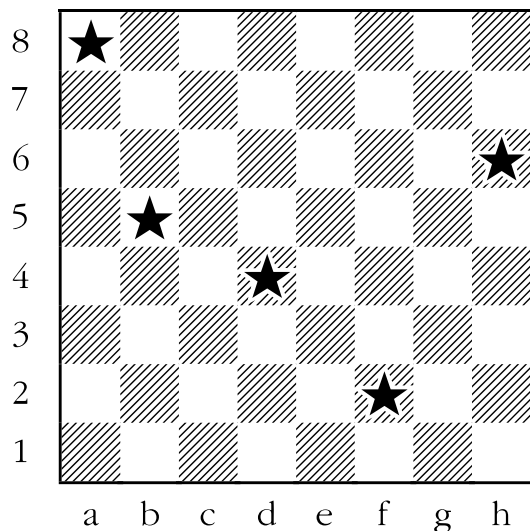
2. Put an "X" on these squares:  
g3, c6, f1, b4, h8, d2



3. Print the names of the squares with the ★ on them:



4. Print the names of the squares with the ★ on them:

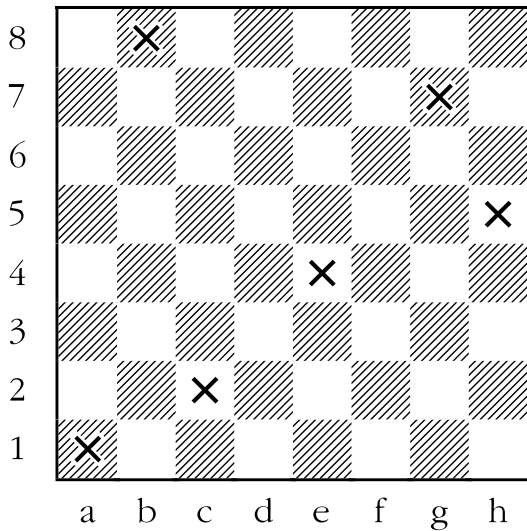


# Answer Sheet 1-1: Names of Squares

1. Put an "X" on these squares:

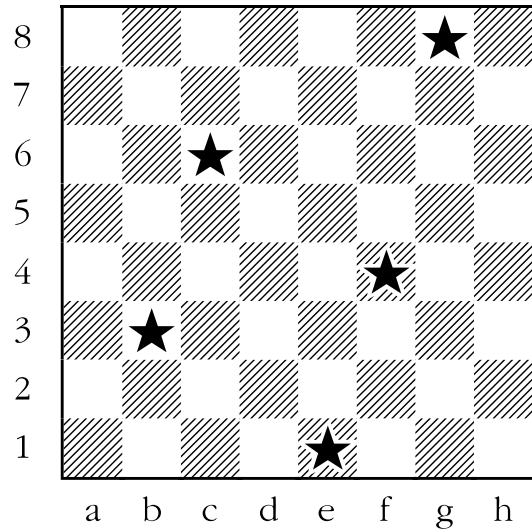
a1, e4, c2, g7, h5, b8

**ANSWER:** See below.



3. Print the names of the squares with the ★ on them:

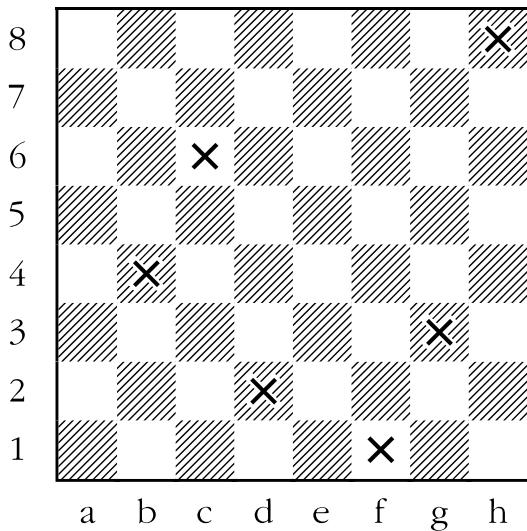
**ANSWER:** (left to right) b3, c6, e1, f4, g8



2. Put an "X" on these squares:

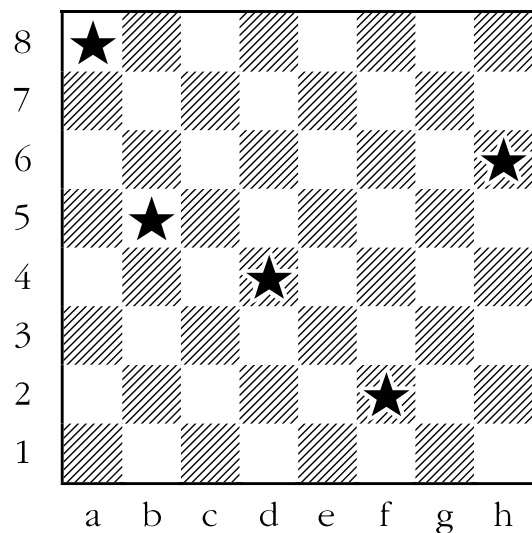
g3, c6, f1, b4, h8, d2

**ANSWER:** See below.



4. Print the names of the squares with the ★ on them:

**ANSWER:** (left to right) a8, b5, d4, f2, h6



# Lesson Plan 1 (part two)

## How Pawns Move and Take

### (Sheet 1-2)

#### Objective:

- Familiarize students with pawns; teaching them how to move their pawns and capture those of their opponent.

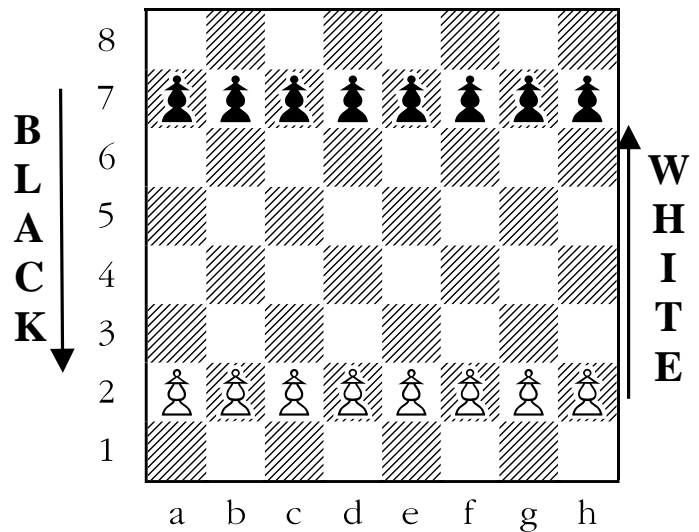
#### Skills Developed:

- Visualization of possibilities before they occur.
- Critical thinking when faced with many choices.

Pawns are the most plentiful piece on the chessboard. Each side starts with eight of them. They are aligned with the white pawns along the second row (moving “up” the board), and the black pawns on the seventh row (moving “down” the board).

Each player looks at “ranks” (rows) from their perspective. For example, if white has a pawn on a3, he would say that it is on his “third rank”. If black had a pawn on a3, he would say that it is on his “sixth rank”, since he starts counting from the top.

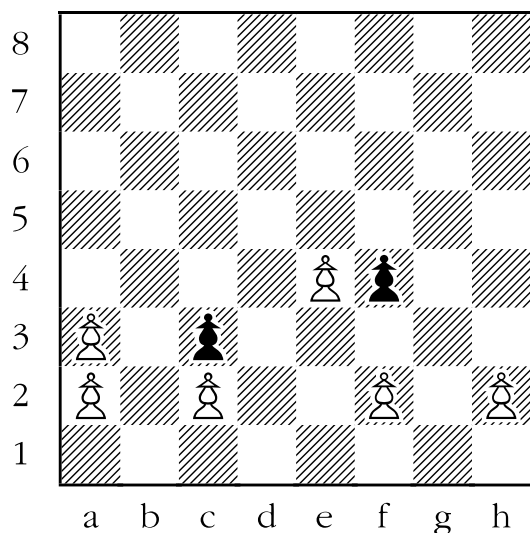
The starting position of the pawns in a chess game are given at the top of the next column:



### Movement

Pawns normally move forward one square at a time. They are the only chessmen that can't move backward. They can't jump over either their own friendly or enemy pieces. Also, pawns may not capture any of their own chess pieces.

If a pawn has not yet moved or captured (i.e., is still along its starting rank) it **may** move forward two squares. An example is given below:



Pretend that it is white's turn to play in the position above. Which one of the

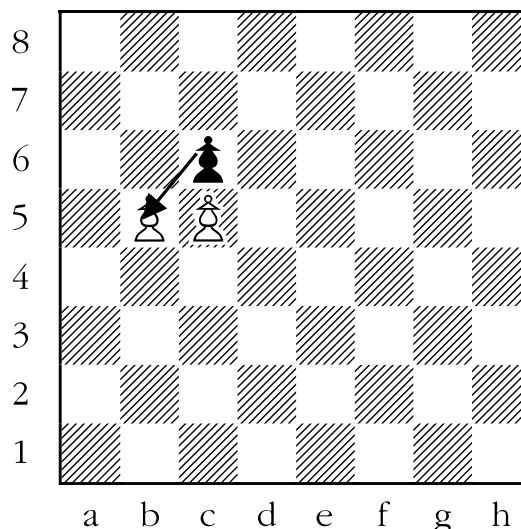
white pawns can legally move two squares on this turn?

Let's tackle this problem one white pawn at a time. The white pawn on:

- a2 - cannot move at all because the white pawn on a3 is in the way.
- a3 - cannot move two squares, because it is no longer on the second rank. It may, however, move forward one square, to a4.
- c2 - cannot move at all because the black pawn on c3 is in the way.
- e4 - cannot move forward two squares because it is no longer on the second rank. It may, however, move forward one square, to e5.
- f2 - cannot move forward two squares because the black pawn on f4 is in the way. It may, however, move forward one square, to f3.
- h2 - may move forward two squares. How do we know? Well, the pawn is still on the second rank, so it hasn't moved or captured another piece yet. Also, there isn't any piece (friendly or unfriendly) in its way. Of course, if the player handling the white pieces only wanted to move that pawn forward one square, that would be okay too.

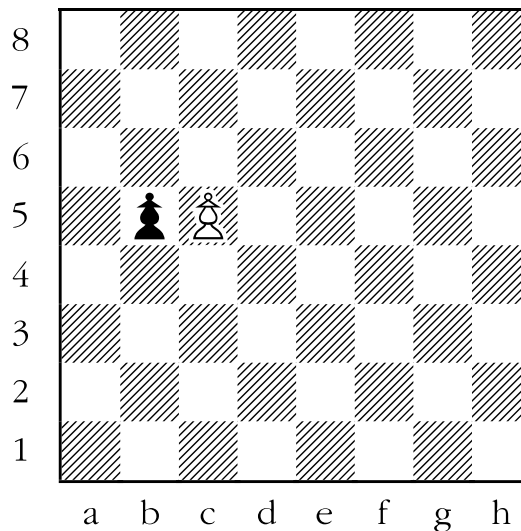
### Capturing

Pawns capture diagonally one square forward. Unlike checkers, they do not jump over the piece that they are capturing, but rather, remove that piece off of the board when they land on that square. An example of a pawn capturing may be seen at the top of the next column:

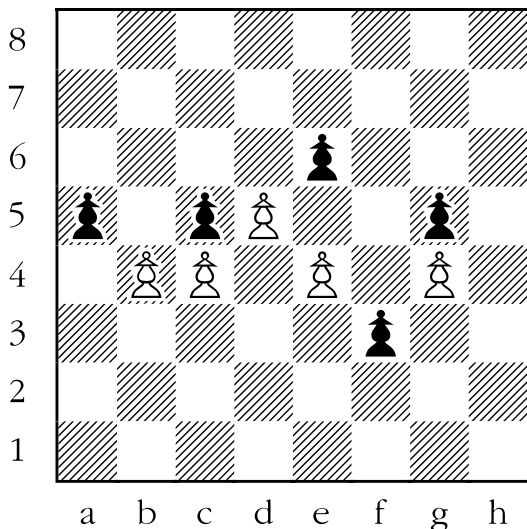


Let's pretend that it is black's move above. The pawn on c6 is going to capture a white pawn. Which one?

The answer is that the pawn may only capture diagonally one square forward, and therefore may only capture the white pawn on b5 (remember that black is moving down the board). It would then land on the b5 square, and the white pawn on that square would be removed from the board. The position would then look like this:



Now we move onto a more complex example. In the position below, which black pawns can take white pawns? Which white pawns can take black pawns?



The only potential captures available to black include:

- a5 - can take the white pawn on b4.
- c5 - can take the white pawn on b4.
- e6 - can capture the white pawn on d5.

Notice that the black pawn on f3 can neither take the white pawn on e4, nor can it take the white pawn on g4 because pawns may only move and capture in a forward direction.

**NOTE:** *For black in all of the diagrams in this manual, forward means moving “down” the board, while for white, forward means moving “up” the board.*

Next, we go to the white pawns. The only potential captures for white are:

- b4 - can capture either the black pawn on c5 or the black pawn on a5.
- d5 - can capture the black pawn on e6.

You may have noticed something interesting about the way that pawns capture. In the previous diagram, the white pawn on d5 is attacking the black pawn on e6, but the black pawn on e6 is also attacking the white pawn on d5. In fact,

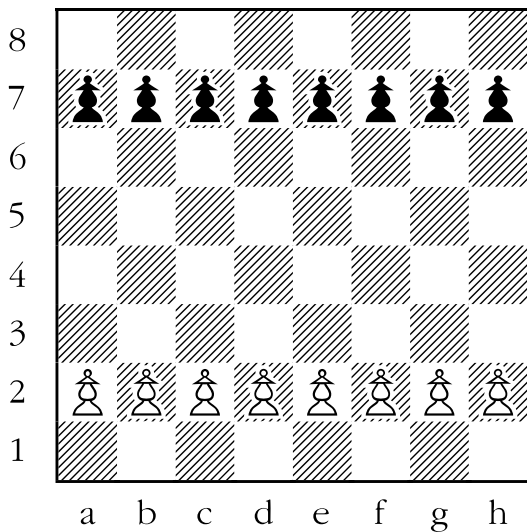
whenever a piece is attacking an enemy piece of the same type, it is itself being attacked by that piece. Of course, the first chance to make the capture goes to the player who is to move.

## **“En Passant”**

*There is one other type of pawn capture called “en passant”. Some of the students in the class may know the rules regarding capturing “en passant”, or more likely **think** that they know the rules. “En passant” will be covered further along in this manual, after the students have thoroughly learned how all of the pieces move. To save you a lot of headaches, do not allow “en passant” moves to be played in class – at least not yet.*

## **TASK: The Pawn Game**

The children can get their first taste of chess even though they don’t know how all of the pieces move. Here’s what you do. Separate the students into pairs. Have them set up the pawns on the board in their original positions along the second and seventh rows. The starting position should look like the diagram at the top of the next page (note that the board should be positioned so that each player has a white square located on their bottom right-hand corner).



One player will take the white pieces, the other the black pieces. The player with the white pieces moves first, then the player with the black pieces, alternating as they go.

A player wins immediately if one of the following occurs:

- 1) He gets a pawn all of the way to the other side of the board.
- 2) He takes all of the opponent's pawns.

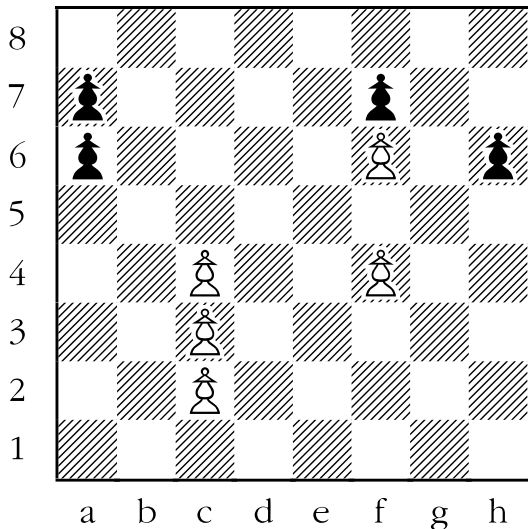
This is not really how chess games are won, but it does give the students a chance to do something interactive.

The purpose of the game is twofold:

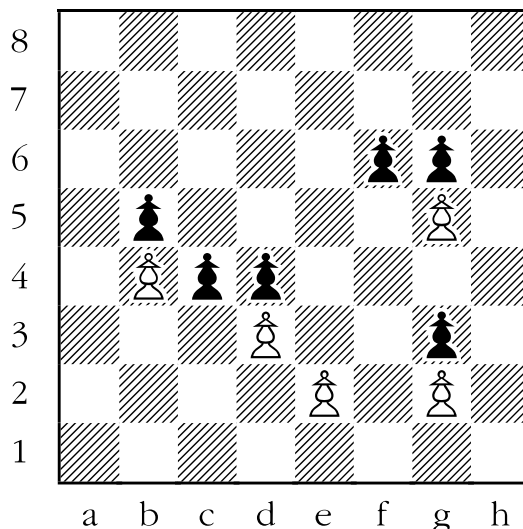
- It solidifies the idea of how pawns move and capture in a fun way.
- It teaches the players to think ahead, and that is the key to playing chess well!

# Sheet 1-2: How Pawns Move and Take

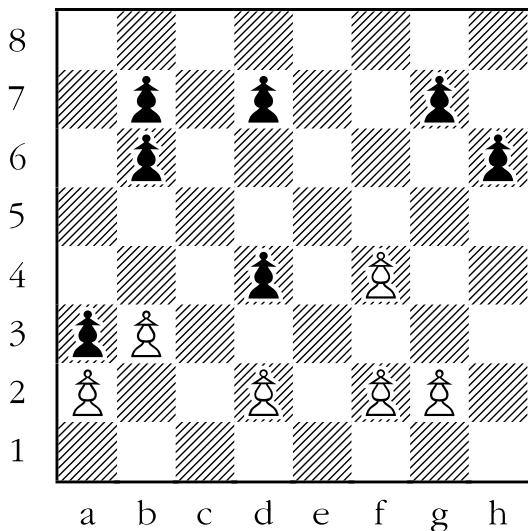
1. Circle all of the pawns that can move.



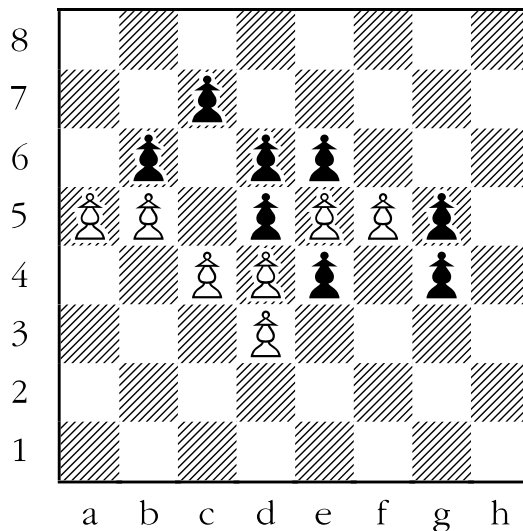
3. Circle all of the pawns that can take other pawns.



2. Circle all of the pawns that can move forward **two** squares.



4. Circle all of the pawns that can take other pawns.



## Answer Sheet 1-2: How Pawns Move and Take

1. Circle all of the pawns that can move.

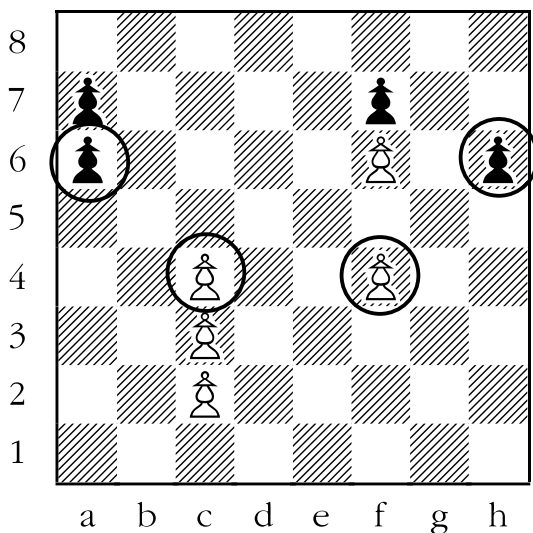
**ANSWER:** The following pawns can move forward:

**White:** pawns on c4, f4

**Black:** pawns on a6, h6

None of the other pawns are allowed to move forward. The black pawn on a7 is blocked by the black pawn on a6. The black pawn on f7 is blocked by the white pawn on f6. The white pawn on c2 is blocked by the white pawn on c3. The white pawn on c3 is blocked by the white pawn on c4. The white pawn on f6 is blocked by the black pawn on f7.

The white pawn on c2 is blocked by the white pawn on c3. The white pawn on c3 is blocked by the white pawn on c4. The white pawn on f6 is blocked by the black pawn on f7.



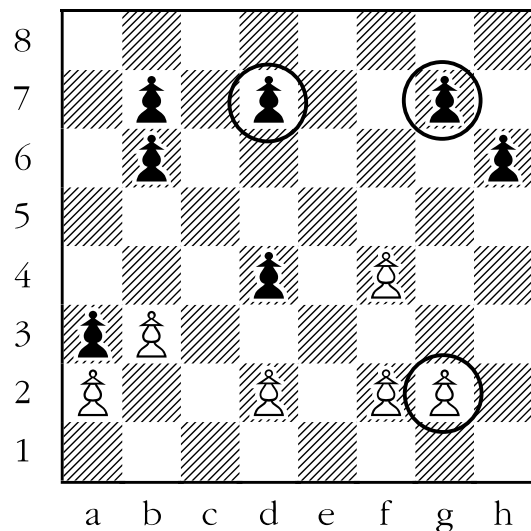
2. Circle all of the pawns that can move forward **two** squares.

**ANSWER:** The following pawns can move forward two squares:

**White:** pawn on g2

**Black:** pawns on d7, g7

None of the other pawns are allowed to move forward two squares for specific reasons. Some pawns have already moved off of their respective “second ranks”. For the remainder, either a friendly or enemy pawn is in the way. Remember, pawns can’t jump over other pieces.



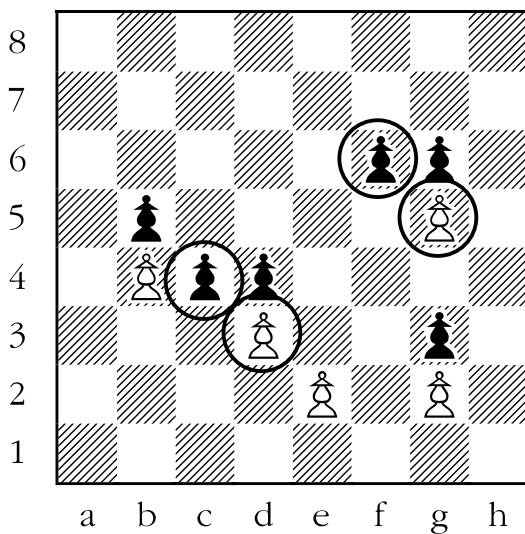
3. Circle all of the pawns that can take other pawns.

**ANSWER:** The following pawns can take another pawn:

**White:** pawns on d3, g5

**Black:** pawns on c4, f6

Pawns capture diagonally one square forward. For white, this means that all black pawns that are one square diagonally “up” from a white one can be captured. For black, this means that all pawns that are diagonally “down” from where they are can be captured.



4. Circle all of the pawns that can take other pawns.

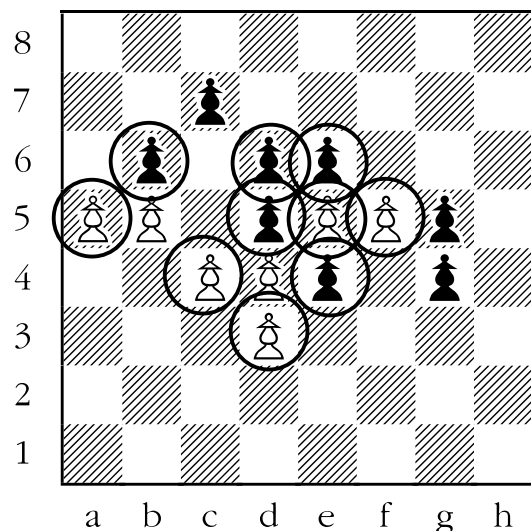
**ANSWER:** This is the most difficult question in this lesson. The following pawns can take another pawn:

**White:** a5, c4, d3, e5, f5

**Black:** b6, d5, e4, d6, e6

Note: the answer has paired each white pawn with the black pawn it can capture, and vice-versa. The white pawn on:

- a5 - can take the black pawn on b6; the black pawn on b6 can take the white pawn on a5.
- c4 - can take the black pawn on d5; the black pawn on d5 can take the white pawn on c4.
- d3 - can take the black pawn on e4; the black pawn on e4 can take the white pawn on d3.
- e5 - can take the black pawn on d6; the black pawn on d6 can take the white pawn on e5.
- f5 - can take the black pawn on e6; the black pawn on e6 can take the white pawn on f5.



The position above is much more complicated than any one that you would get in a real chess game. If you have mastered the above examples, you have mastered the pawns.

## Lesson 2

### How Kings Move and Take (Sheet 2-1)

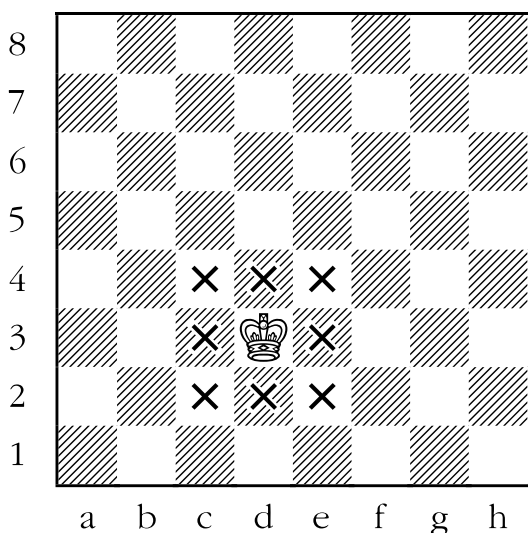
#### Objective:

- Students become aware of moves they make, and that of their opponent. They learn that they can attack their opponent's king, and that their own king will be under attack. If they can't get out of attack (this is called "check"), the game is over. The student is "checkmated". That is the way in which chess games are really won - or lost!

#### Skills Developed:

- The idea that actions have consequences.
- Caution against impulsiveness.

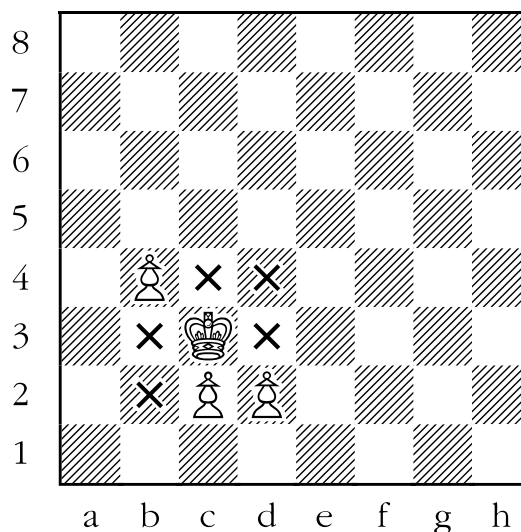
The king is the most valuable piece on the chessboard, but not the most powerful. The king moves and captures in exactly the same way. It moves and captures one square in any direction. For example, let's look at the diagram below:



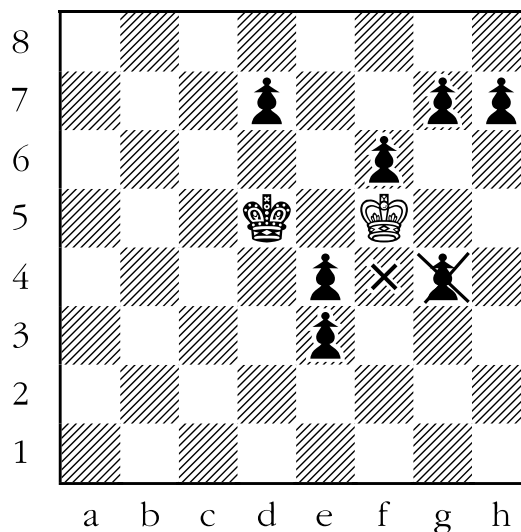
The king above can move to any one of the eight squares with an "X" on them.

In chess, no piece may capture a friendly piece (a piece of the same colour);

in the following diagram the white king on c3 can't take any of the white pawns, but may move to each of the remaining squares one space away.



A king can't move onto a square where it will be under attack from an enemy piece. The white king below can't move to a square where it will be under attack from the enemy pawns or the enemy king.



In the diagram above, the white king **can't**:

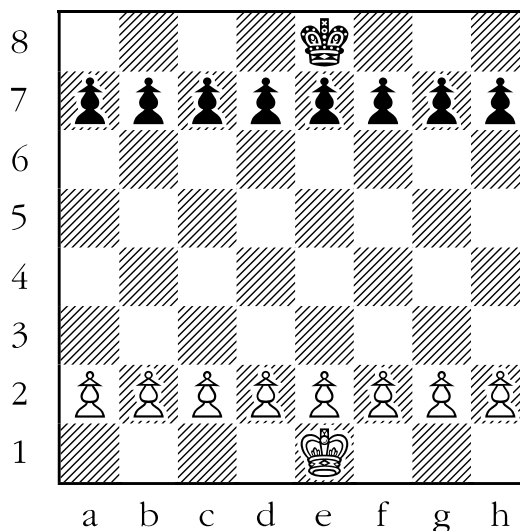
- take the black pawn on e4, because it would come under attack from the black king.

- move to e5 because it would come under attack from both the black pawn on f6 and the black king.
- move to e6 because it would come under attack from both the black pawn on d7 and the black king.
- take the black pawn on f6 because it would come under attack from the black pawn on g7.
- move to g5 because it would come under attack from the black pawn on f6.
- move to g6 because it would come under attack from the black pawn on h7.

The only safe squares for the white king are f4 and g4 (marked by the “X” on the previous diagram). If white chose to move to g4, the black pawn would be removed from the board, and the white king placed on that square.

## TASK: The King and Pawn Game

This game is basically the same as the pawn game, but each side will start with a king to go with their eight pawns. The kings should be placed directly opposite each other on the colour opposite to the colour of the king, like this:



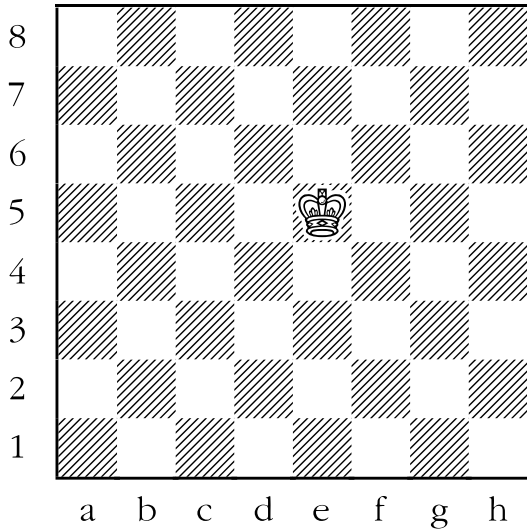
It is very important that the students learn not to let their kings get captured. Instruct the students that they may not capture the opponent’s king. If someone fails to notice that their king is under attack or moves their king onto a square that places it under attack, they must be allowed to retract their last move and play another. If you notice that someone has lost their king, try to reconstruct the game to the point where the king was taken, and resume the game from that point. Kings should **never** be taken.

The winner of the game is the first player who does one of the following:

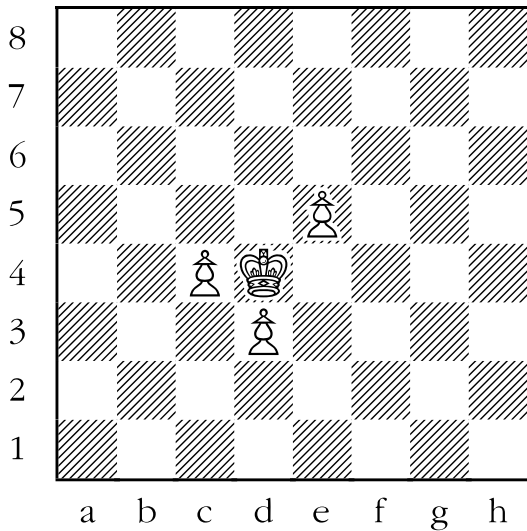
- 1) Takes all of the opponent’s pawns.
- 2) Gets a pawn all of the way to the other end of the board, without the enemy king taking that pawn on the opponent’s very next move.

# Sheet 2-1: How Kings Move and Take

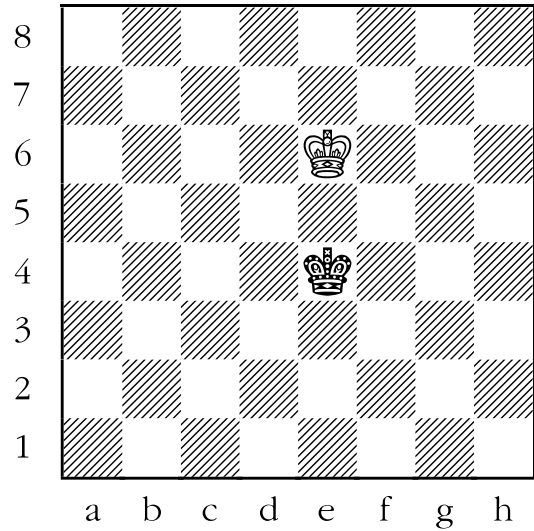
- Put an "X" on all of the squares the king can move to next.



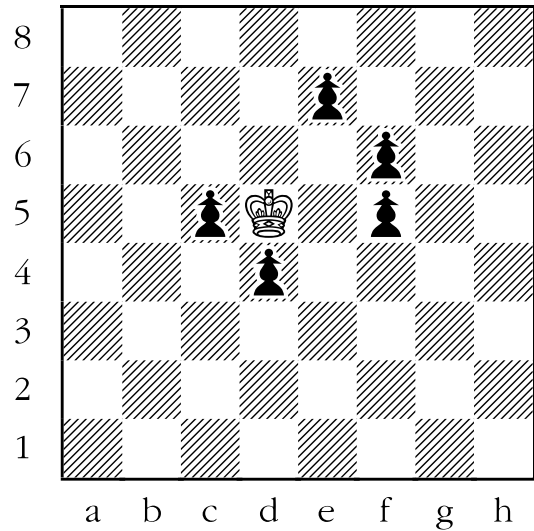
- Put an "X" on all of the squares the king can move to next.



- Put an "X" on all of the safe squares the white king can move to next. Remember, you must not be attacked.

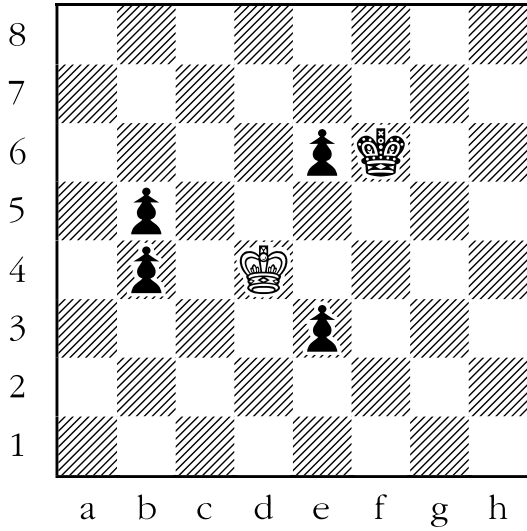


- Put an "X" on all of the safe squares the white king can move to next. Remember, you must not be attacked.

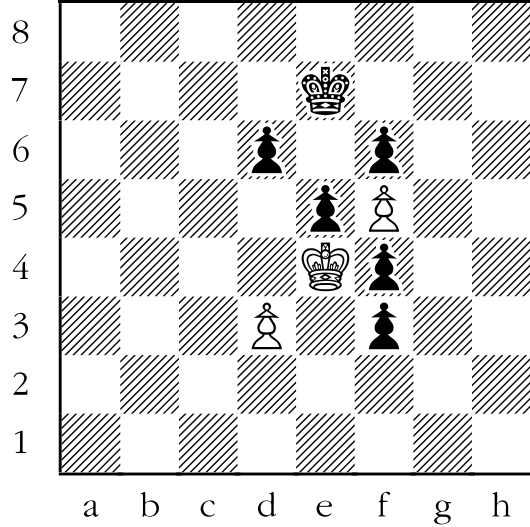


# Sheet 2-1: How Kings Move and Take

5. Put an "X" on all of the safe squares the white king can move to next. Remember, you must not be attacked.



6. Put an "X" on all of the safe squares the white king can move to next. Remember, you must not be attacked.

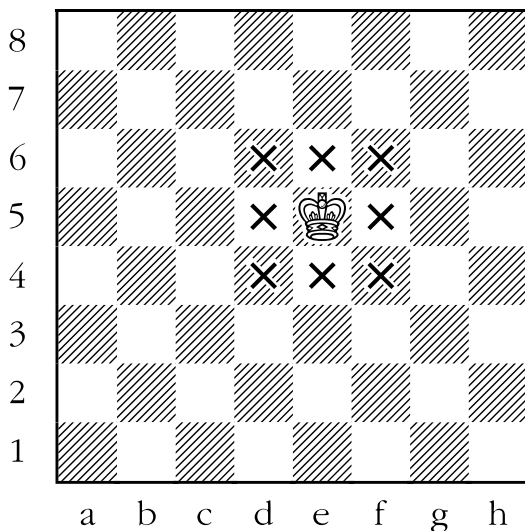


## Answer Sheet 2-1: How Kings Move and Take

1. Put an "X" on all of the squares the king can move to next.

**ANSWER:** d4, d5, d6, e4, e6, f4, f5, and f6.

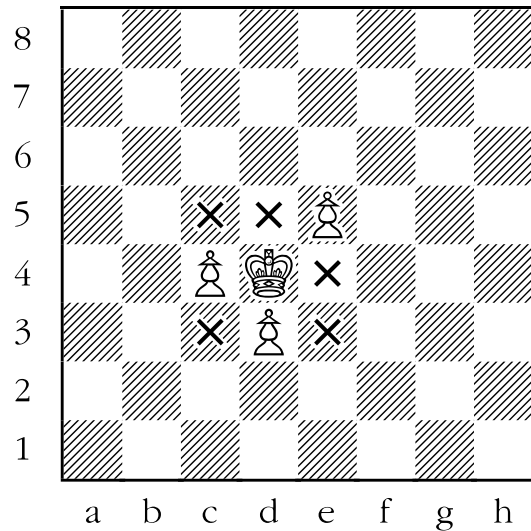
The king has the ability to move one square in any direction. From any square not along the edge on an open board the king has a choice of eight squares it may go to.



2. Put an "X" on all of the squares the king can move to next.

**ANSWER:** c3, c5, d5, e3, and e4.

No piece on a chessboard may take a friendly piece. Therefore, the king in the diagram below may not take the white pawns on c4, d3, and e5.

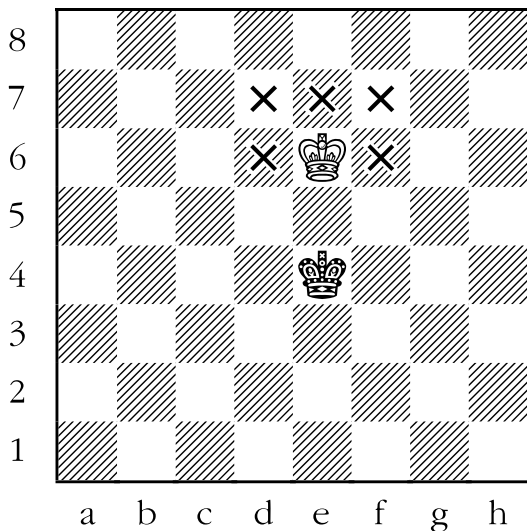


3. Put an “X” on all of the safe squares the white king can move to next. Remember, you must not be attacked.

**ANSWER:** d6, d7, e7, f6, and f7.

Although kings can't be taken, they are also not allowed to move to any square where they might be attacked (in chess parlance, called “moved into check”). Therefore two kings can't be on adjacent squares, as each would be attacked by the other.

In the diagram below, the white king may not move to any square adjacent to the black king (d5, e5, and f5).

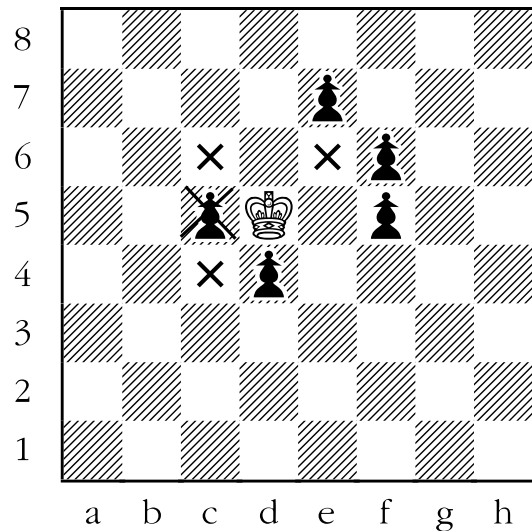


4. Put an “X” on all of the squares the white king can move to next. Remember, you must not be attacked.

**ANSWER:** c4, c5 (capturing a pawn), c6 and e6.

Pawns capture diagonally forward, so the white king in the diagram below can't move to any square where it may be attacked by a pawn. Therefore, the king **can't**:

- go to d6, because it would be attacked by the black pawn on e7.
- go to e5 because it would be attacked by the black pawn on f6.
- go to e4 because it would be attacked by the black pawn on f5.
- capture the black pawn on d4, because it would be attacked by the black pawn on c5.

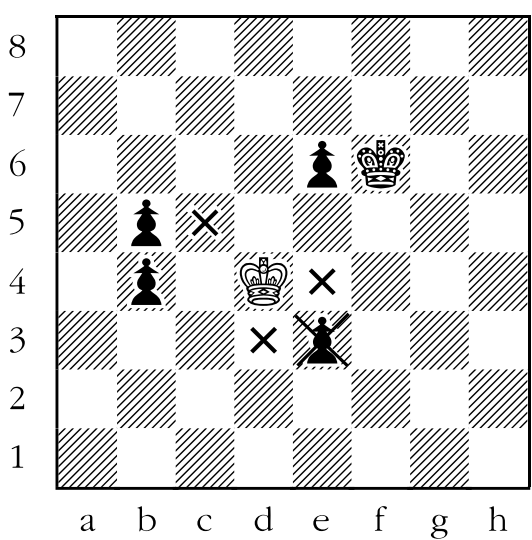


5. Put an “X” on all of the safe squares the white king can move to next. Remember, you must not be attacked.

**ANSWER:** c5, d3, e3 (capturing a pawn), and e4.

The white king **can't**:

- move to c3, because it would be attacked by the black pawn on b4.
- move to c4 because it would be attacked by the black pawn on b5.
- move to d5 because it would be attacked by the black pawn on e6.
- move to e5 because the black king would attack it.

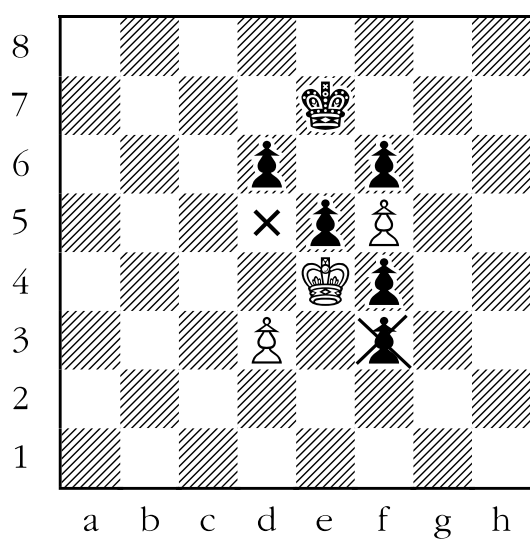


6. Put an “X” on all of the safe squares the white king can move to next. Remember, you must not be attacked.

**ANSWER:** d5 and f3 (capturing a pawn).

The white king **can't**:

- take his own pawns on f5 and d3.
- move to d4 because it would be under attack from the black pawn on e5.
- take the black pawn on e5 because it would be attacked by the black pawns on d6 and f6.
- take the black pawn on f4, because it would be attacked by the black pawn on e5.



# Lesson 3

## How Rooks Move and Take

### (Sheet 3-1)

**Objective:**

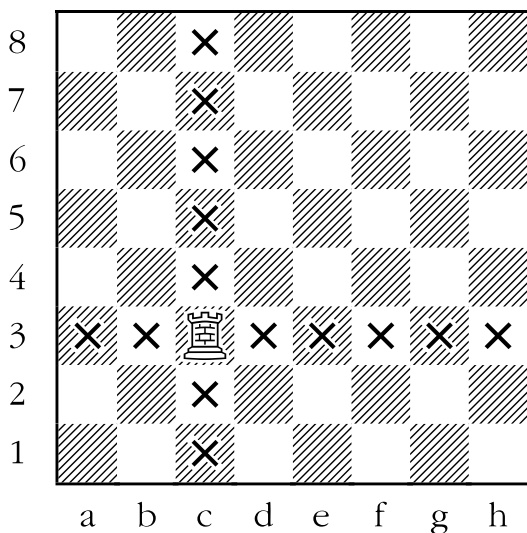
- Teach students how to move the rook legally and learn how to think ahead.

**Skills Developed:**

- Recognition of horizontal and vertical lines.

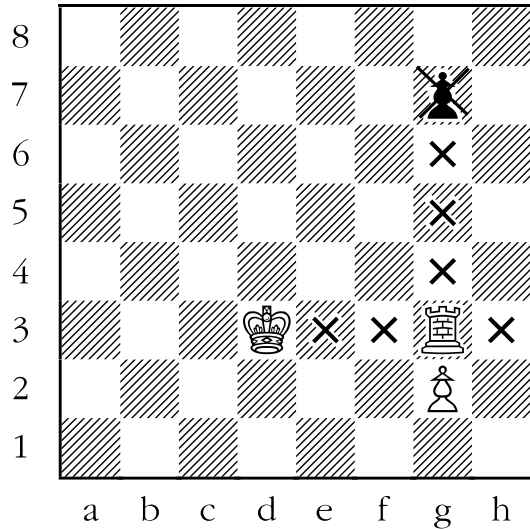
Rooks are one of the simplest pieces with which to move and capture. Rooks move in a straight line, either vertically or horizontally in either direction. An example of how a rook moves on an open board is shown below. Note that no matter where you place the rook on this board, it can move to exactly fourteen squares.

In the diagram below, the white rook on c3 can move to any of the squares arrayed along the horizontal line a3 to h3 (known in chess as white's "third rank"). It can also go to any square arrayed along the vertical line c1 to c8 (known in chess as the "c-file").



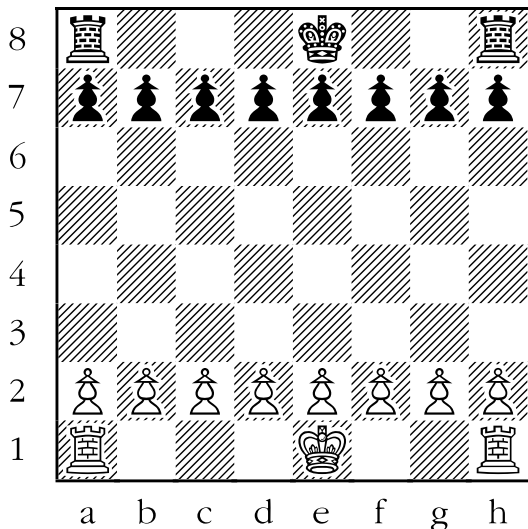
Rooks can't jump over friendly or enemy pieces, but can capture enemy ones.

In the following example, note that the white rook can't jump over the white pawn on g2, or the white king on d3. Nor can the rook capture either of them. However, although the rook can't jump over the black pawn, it can capture it.



## TASK: The King, Rook and Pawn Game

Divide the students into pairs, and have them set up the boards as shown below:



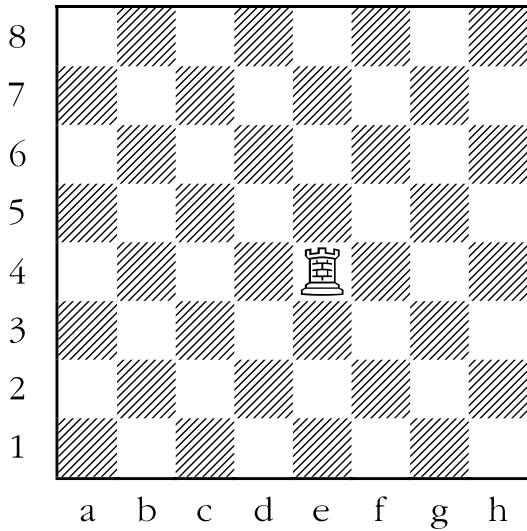
For the purposes of determining a victor, the winner is:

1. The first player to take all of his opponent's pieces (except for the king, of course).
2. The first player to get a pawn all of the way to the other end of the board without it being captured on the opponent's very next move.
3. The player who attacks the opponent's king in such a way that the opponent has no way to get out of check (i.e. is in "checkmate").

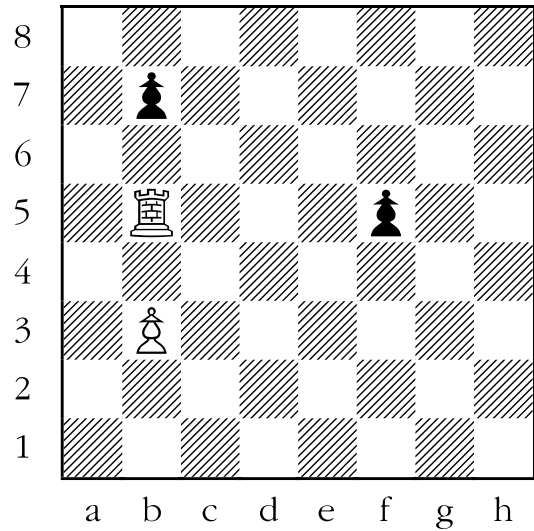
**NOTE:** Although briefly mentioned in the previous lesson's objective, don't worry if you are still unsure what checkmate is - and don't try to explain it to the students. It will be covered right after we cover how all of the pieces move.

# Sheet 3-1: How Rooks Move and Take

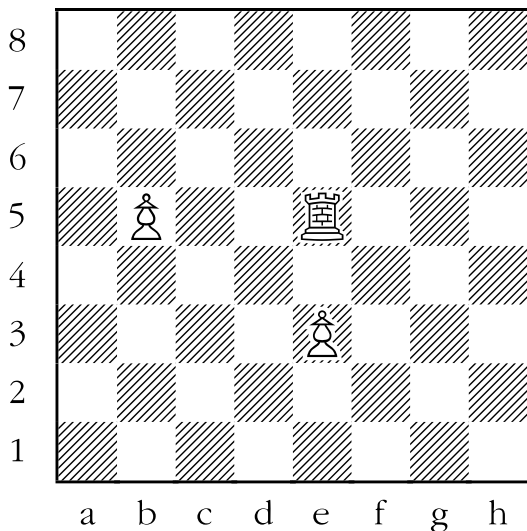
1. Put an "X" on all of the squares the rook can move to next.



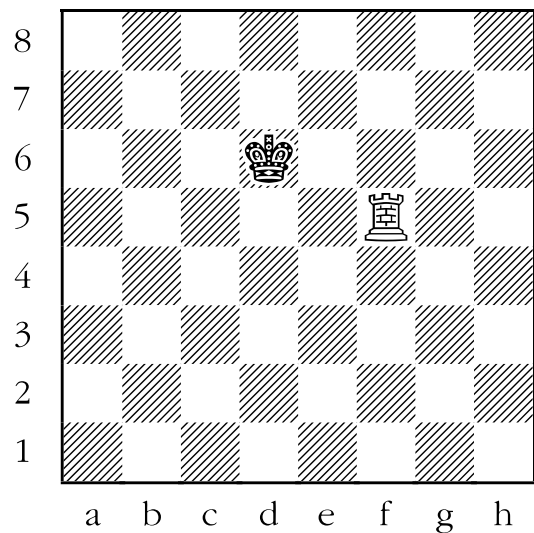
3. Put an "X" on all of the squares the rook can move to next.



2. Put an "X" on all of the squares the rook can move to next.

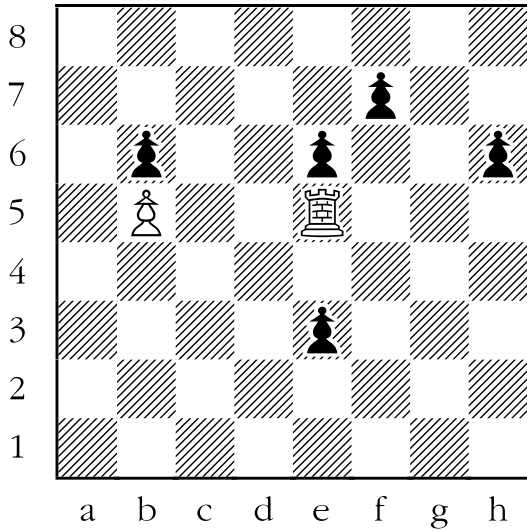


4. Put an "X" on all of the squares the rook can move to next without being taken.

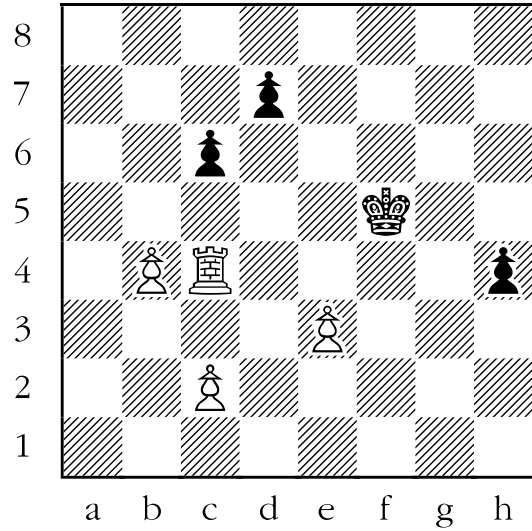


# Sheet 3-1: How Rooks Move and Take

5. Put an "X" on all of the squares the rook can move to next without being taken.



6. Put an "X" on all of the squares the rook can move to next without being taken.



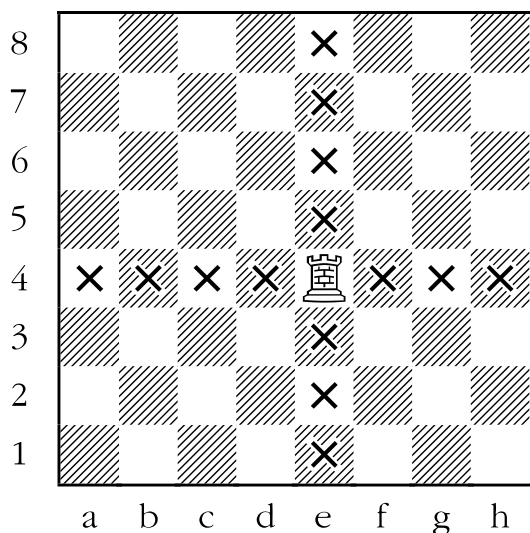
# Answer Sheet 3-1: How Rooks Move and Take

1. Put an “X” on all of the squares the rook can move to next.

**ANSWER:**

**Vertically** (along the “e-file”): e1 to e8.

**Horizontally** (along white’s “fourth rank”): a4 to h4.



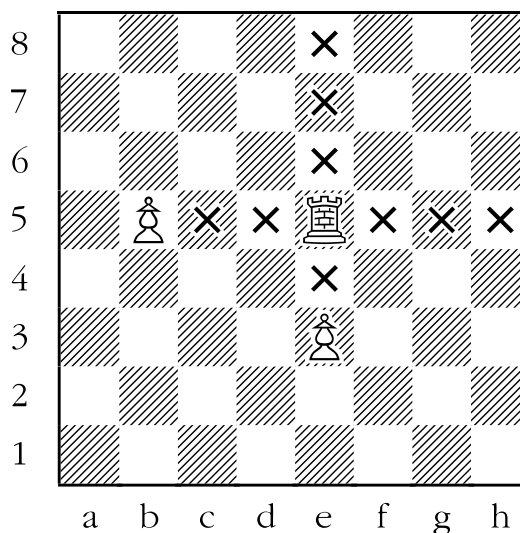
2. Put an “X” on all of the squares the rook can move to next.

**ANSWER:**

**Vertically** (along the “e-file”): e4 to e8.

**Horizontally** (along white’s “fifth rank”): c5 to h5.

Since rooks can’t jump over or capture friendly pieces, the rook on e5 can neither take nor leap over either of the white pawns.



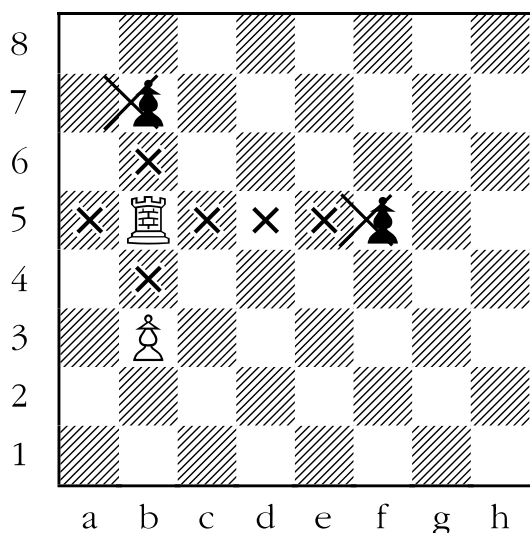
3. Put an “X” on all of the squares the rook can move to next.

**ANSWER:**

**Vertically** (along the “b-file”): b4 to b7.

**Horizontally** (along white’s “fifth rank”): a5 to f5.

Rooks can capture, but not jump over, enemy pieces. The rook below can’t leap over the black pawns on b7 and f5, but can capture them. The rook can neither capture nor leap over the white pawn on b3.



4. Put an “X” on all of the squares the rook can move to next without being taken.

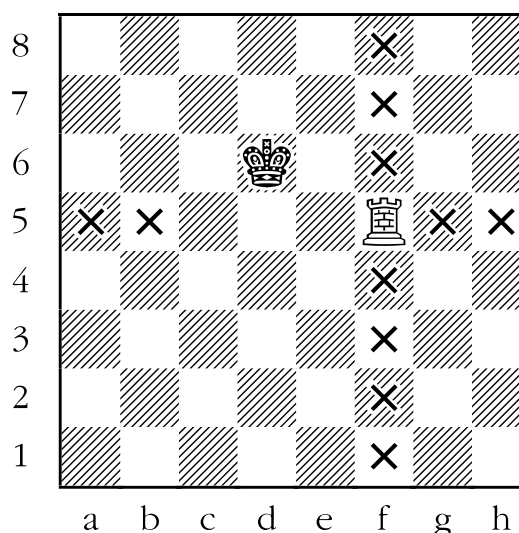
**ANSWER:**

**Vertically** (along the “f-file”): f1 to f8.

**Horizontally** (along the “fifth rank”): a5, b5, g5, and h5.

In order to avoid being attacked (and possibly captured), the rook below must avoid all squares directly adjacent to the black king on d6. For the rook on f5, those squares would be c5, d5, and e5.

All of the other squares are safe for the rook to move to. Incidentally, if the white rook were to move to f6 (or d5), the black king would be “in check” (under attack) from the white rook. On his next move, the player of the black pieces would be forced to get his king out of check. In the case of moving the rook to d5, one of the ways for the black king to get out of check is to take the rook.



5. Put an “X” on all of the squares the rook can move to next without being taken.

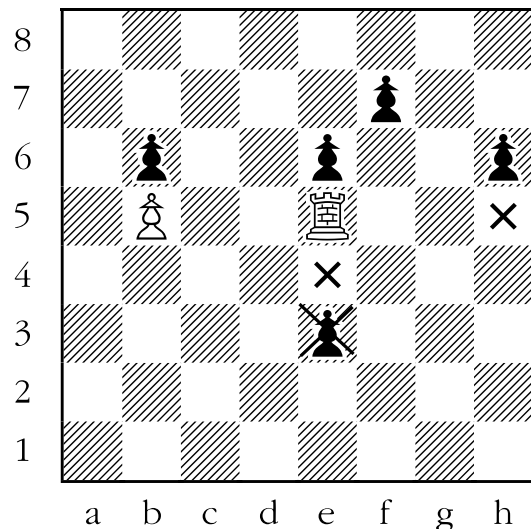
**ANSWER:**

**Vertically** (along the “e-file”): e3 (capturing a pawn) and e4.

**Horizontally** (along white’s “fifth rank”): h5.

The white rook on e5 has very few safe squares. The squares that are unsafe (or illegal) are:

- a5 is illegal, as it would require that the rook jump over the pawn on b5, which is not allowed.
- the white pawn on b5 may not be taken since no piece may capture a friendly piece.
- c5 is legal, but not safe. The rook would be under attack from the pawn on b6. It could then be captured on black’s move, if black so desired.
- d5 and f5 are both unsafe, since the pawn on e6 would be attacking the white rook if it moved there.
- g5 is unsafe, since the pawn on h6 would attack the white rook if it moved there.
- The pawn on e6 would not be good for the rook to take since it is guarded by the black pawn on f7.
- e1, e2, e7 and e8 are illegal squares for the rook to move to, since rooks cannot jump over enemy pieces.



6. Put an “X” on all of the squares the rook can move to next without being taken.

**ANSWER:**

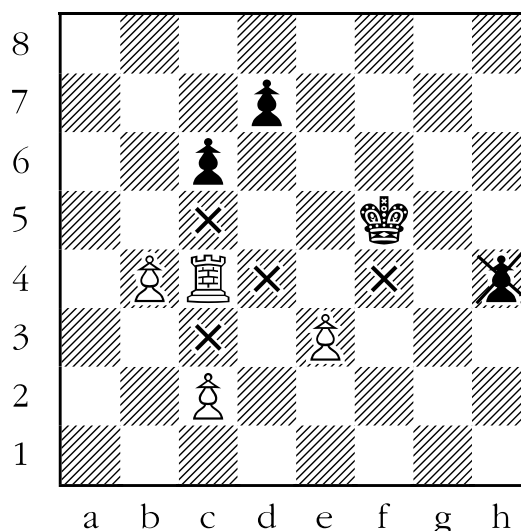
**Vertically** (along the “c-file”): c3 and c5.

**Horizontally** (along white’s “fourth rank”): d4, f4, and h4 (capturing a pawn).

Again the white rook has few safe squares to move to. The squares that are unsafe or illegal are:

- a4 is illegal, as the white rook is not allowed to jump over the white pawn on b4. Likewise, the white pawn on c2 prevents the white rook from moving to c1. Capturing either of the white pawns is illegal.
- c7 and c8 are illegal since the rook cannot jump over the black pawn on c6.
- Moving the rook to either of e4 or g4 is legal. But it would not be safe as the black king could then take the rook.
- Moving the rook to c6 (and taking the black pawn on that square) would be legal. But it would not be safe to do so as the pawn on d7 could then take the rook.

The king can’t take the rook if it goes to f4 since the rook is guarded by the white pawn on e3. Incidentally, the white rook would be attacking the king if it moved to either c5 or f4. The king would be “in check” and have to get out of check on his turn.



# Lesson 4

## How Bishops Move and Take (Sheet 4-1)

### Objective:

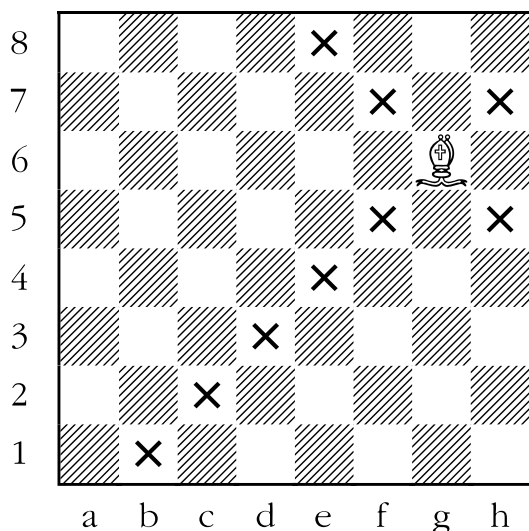
- Teach students how to move the bishop legally.

### Skills Developed:

- Understanding the concept of “diagonal”.
- Putting this knowledge into use.

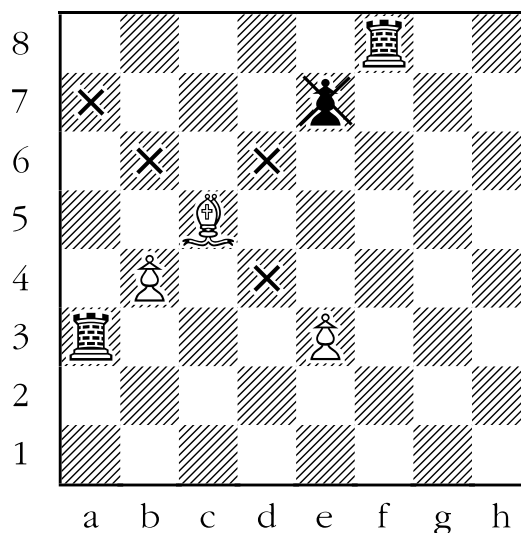
A bishop moves in a straight diagonal line, either forwards or backwards, and must always stay on the colour of the square it started on. For example, if a bishop starts on a light square, it must always remain on light squares.

In the diagram below, the bishop on g6 can move to any square on the diagonal starting at b1 and going all of the way to h7 (called the “b1 to h7 diagonal”). It can also move to any square on the diagonal starting at h5 and going all of the way to e8 (the “h5 to e8 diagonal”).



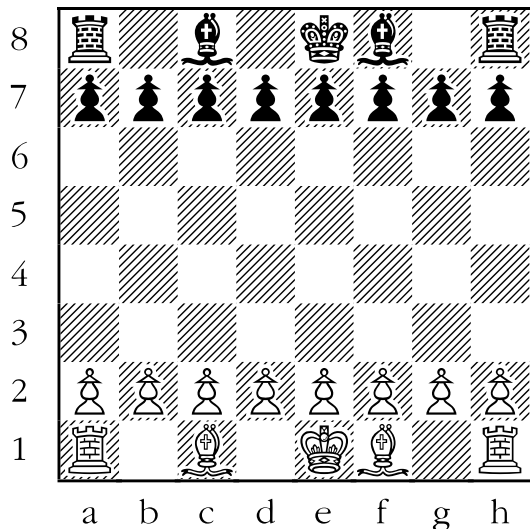
Bishops can't jump over friendly or enemy pieces, but can capture enemy ones. An example of this is seen below. Notice that the bishop on c5 can capture the black pawn on e7, but can't capture either of the black rooks, since:

- the black pawn on e7 is blocking the rook on f8.
- the white pawn on b4 is blocking the rook on a3.



## TASK: The King, Rook, Bishop, and Pawn Game

Divide the students into pairs, and have them set up the boards as shown below:



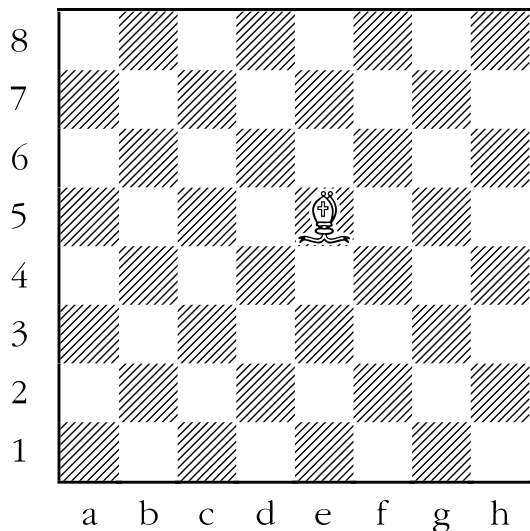
For the purposes of determining a victor, the winner is:

1. The first player to take all of his opponent's pieces (except for the king, of course).
2. The first player to get a pawn all of the way to the other end of the board without it being captured on the opponent's very next move.
3. The player who attacks the opponent's king in such a way that the opponent has no way to get out of check (i.e. is in "checkmate").

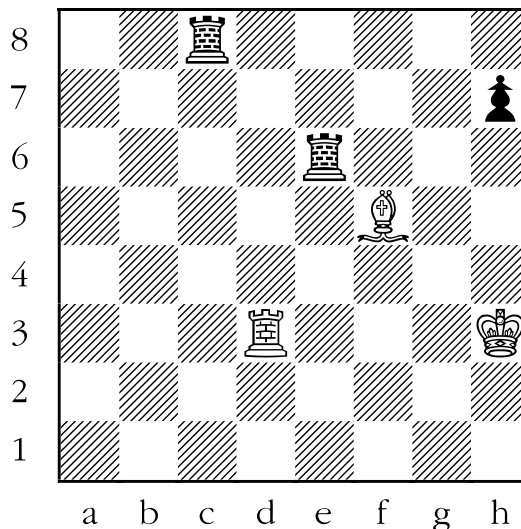
**NOTE:** Do not worry if you are unsure what checkmate is - and don't try to explain it to the students. It will be covered right after we cover how all of the pieces move.

# Sheet 4-1: How Bishops Move and Take

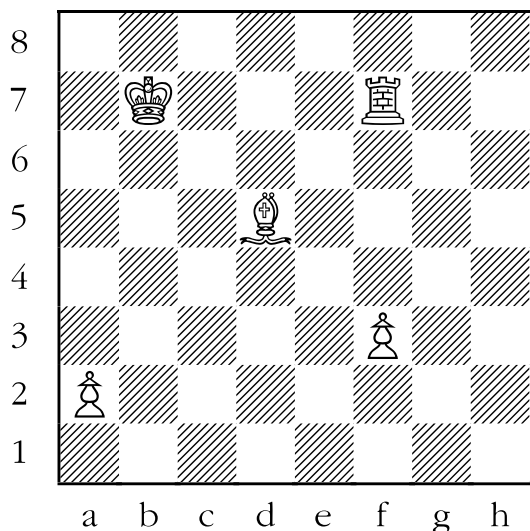
1. Put an "X" on all of the squares the bishop can move to next.



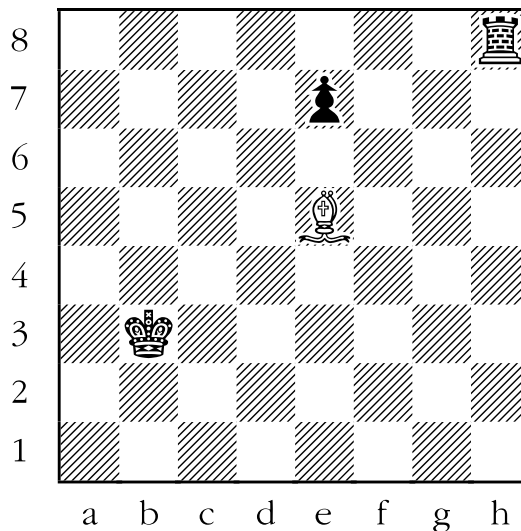
3. Put an "X" on all of the squares the bishop can move to next without being taken.



2. Put an "X" on all of the squares the bishop can move to next.

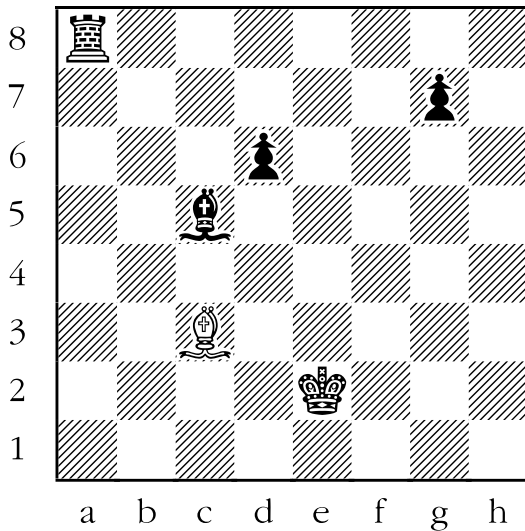


4. Put an "X" on all of the squares the bishop can move to next without being taken.

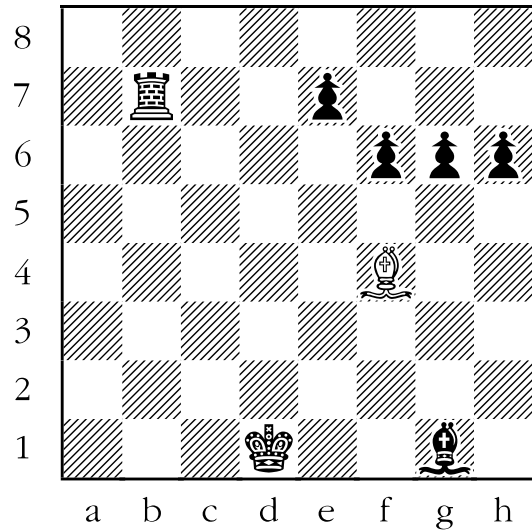


# Sheet 4-1: How Bishops Move and Take

5. Put an "X" on all of the squares the white bishop can move to next without being taken.



6. Put an "X" on all of the squares the white bishop can move to next without being taken.



# Answer Sheet 4-1: How Bishops Move and Take

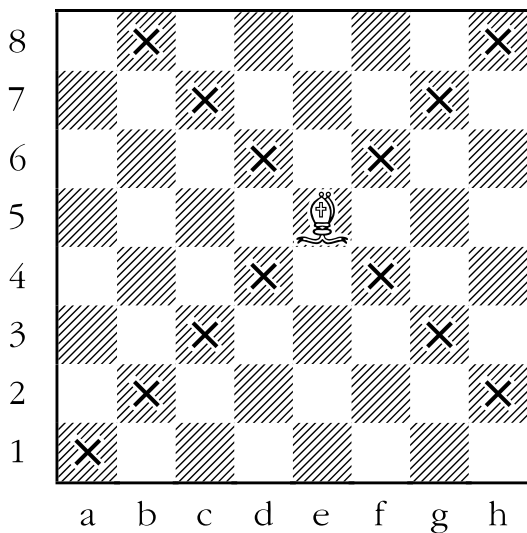
1. Put an “X” on all of the squares the bishop can move to next.

**ANSWER:**

**Along the diagonal a1-h8:** a1, b2, c3, d4, f6, g7 and h8.

**Along the diagonal h2-b8:** h2, g3, f4, d6, c7 and b8.

Bishops move diagonally any number of squares. The bishop on e5, found below, can move to any square on the h2-b8 diagonal, as well as on the a1-h8 diagonal (in chess parlance, also known as a “long diagonal”).



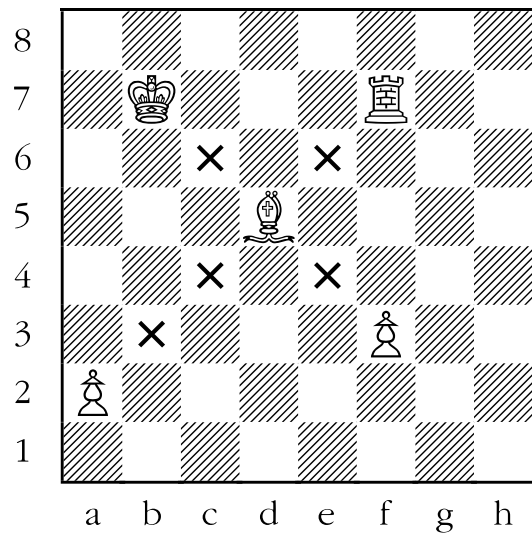
2. Put an “X” on all of the squares the bishop can move to next.

**ANSWER:**

**Along the a2-g8 diagonal:** b3, c4 and e6.

**Along the h1-a8 diagonal:** e4 and c6.

Bishops can’t capture friendly pieces or leap over them. Therefore, the bishop on d5, found below, can’t jump over or capture either of the white pawns, the white rook, or the white king.



3. Put an “X” on all of the squares the bishop can move to next without being taken.

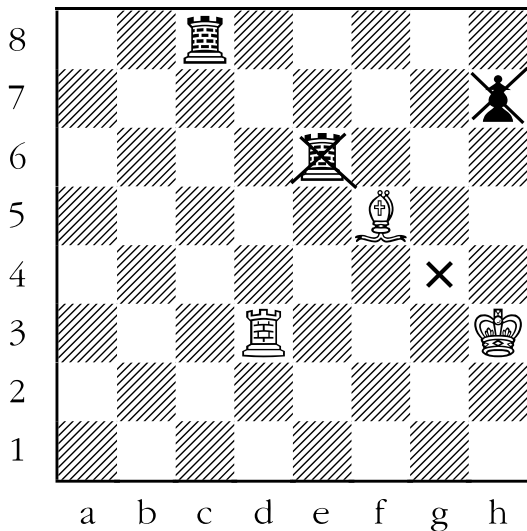
**ANSWER:**

**Along the b1-h7 diagonal:** h7 (capturing a pawn).

**Along the h3-c8 diagonal:** g4 and e6 (capturing a rook).

Bishops can capture, but not jump over, enemy pieces. The bishop below may capture either the black pawn on h7 or the black rook on e6, but can't jump over the rook on e6 and capture the rook on c8.

It is legal, but unsafe, to move the bishop to e4, as the black rook on e6 could then capture it. Likewise, it would be legal, but unsafe, to move the bishop to g6 as then either the pawn on h7 or the rook on e6 could capture it.



4. Put an “X” on all of the squares the bishop can move to next without being taken.

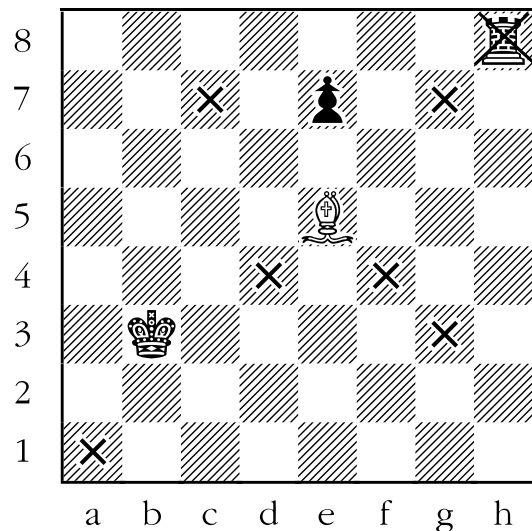
**ANSWER:**

**Along the a1-h8 diagonal:** a1, d4, g7 and h8 (capturing a rook).

**Along the h2-b8 diagonal:** g3, f4 and c7.

The bishop on e5 can legally move to any of thirteen different squares, but not all of them are safe. The following are not safe places for the bishop to go:

- b8 and h2 - the bishop would be in danger of being taken by the black rook on h8.
- d6 or f6 - the bishop would be in danger of being taken by the black pawn on e7.
- c3 and b2 - the bishop would be in danger of being taken by the black king.



5. Put an “X” on all of the squares the white bishop can move to next without being taken.

**ANSWER:**

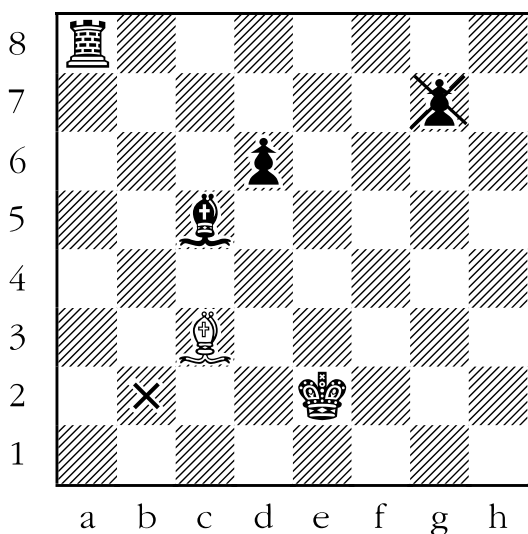
**Along the a1-h8 diagonal:** b2 and g7 (capturing a pawn).

**Along the e1-a5 diagonal:** no squares.

The white bishop on c3 has very few safe squares to which it can move:

- a1 and a5 - the black rook on a8 would attack the bishop.
- b4 and d4 - the black bishop on c5 would attack the bishop.
- d2 and e1 - the black king on e2 would attack the bishop.
- e5 - the black pawn on d6 would attack the bishop.
- f6 - the black pawn on g7 would attack the bishop.

Furthermore, moving the bishop to h8 is illegal, as bishops can't jump over either friendly or enemy pieces.



6. Put an “X” on all of the squares the white bishop can move to next without being taken.

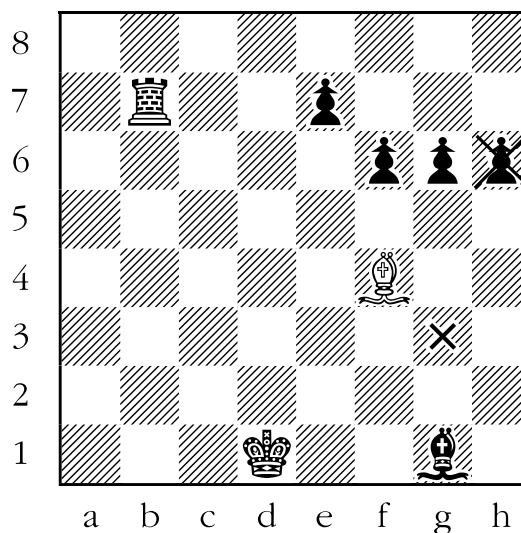
**ANSWER:**

**Along the c1-h6 diagonal:** h6 (capturing a pawn).

**Along the h2-b8 diagonal:** g3.

Yet again the bishop has deceptively few safe squares to which to move. The unsafe squares are the following:

- b8 and c7 - the black rook on b7 would attack the bishop.
- e3 and h2 - the black bishop on g1 would attack the bishop.
- c1 and d2 - the black king on d1 would attack the bishop.
- g5 and e5 - the black pawn on f6 would attack the bishop.
- d6 - the black pawn on e7 would attack the bishop.



# Lesson 5

## How Queens Move and Take (Sheet 5-1)

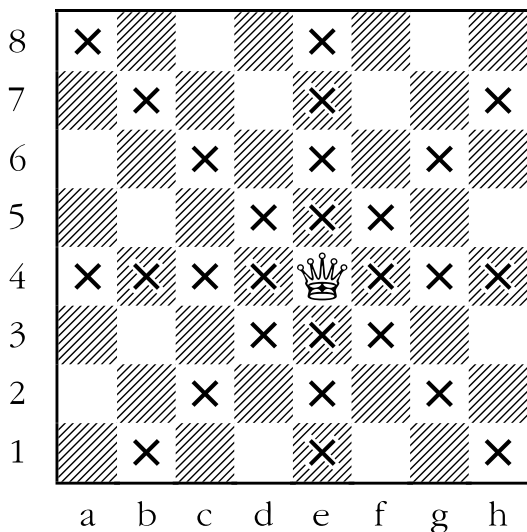
**Objective:**

- Teach students how to move the queen legally.

**Skills Developed:**

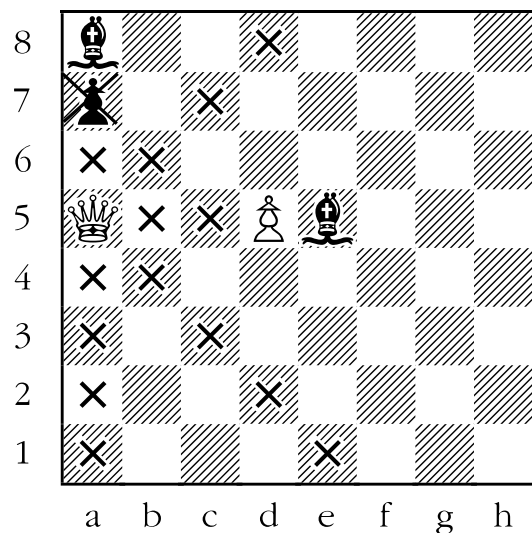
- Continued recognition of horizontal, vertical and diagonal lines.
- Reasoning by “process of elimination”.

The queen is the most mobile and powerful piece on the board. She combines the movement of the rook with that of the bishop. In other words on any turn, she can move like a bishop or a rook. An example of the mobility of the queen on the open board is seen below; all together she attacks an astounding 27 squares - more than 40% of the board!



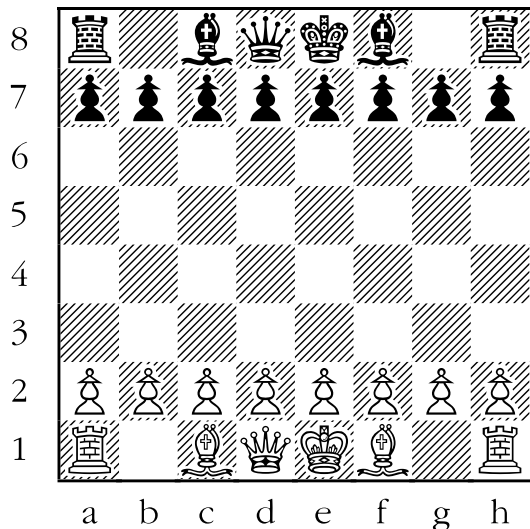
Queens can't jump over friendly or enemy pieces, but can capture enemy ones. An example of this is seen below. Notice that the queen on a5 can capture the black pawn on a7, but can't capture either of the black bishops, since:

- the bishop on a8 is blocked by the pawn on a7.
- the bishop on e5 is blocked by the white pawn on d5.



## TASK: The King, Queen, Rook, Bishop and Pawn Game

Divide the students into pairs, and have them set up the boards as shown below:



Once again the object of the game is not exactly the same as in an actual chess game. Rather, the object of the game is to get the students to move the pieces legally and, hopefully, to get into the habit of thinking ahead.

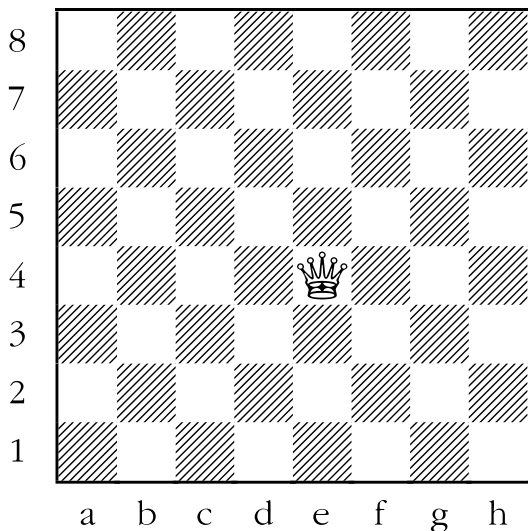
For the purposes of determining a victor, the winner is:

1. The first player to take all of his opponent's pieces (except for the king, of course).
2. The first player to get a pawn all of the way to the other end of the board without it being captured on the opponent's very next move.
3. The player who attacks the opponent's king in such a way that the opponent has no way to get out of check (i.e. is in "checkmate").

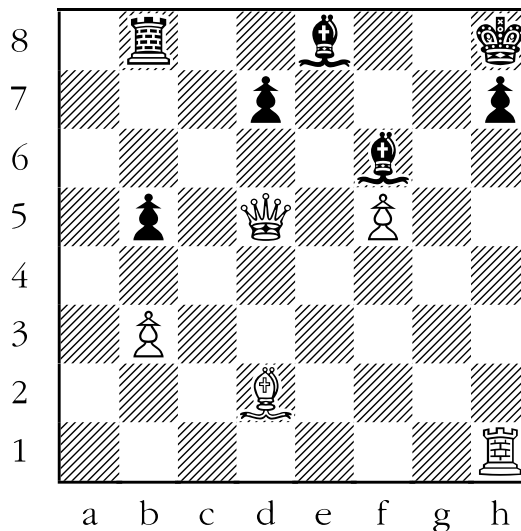
**NOTE:** Do not worry if you are unsure what checkmate is - and don't try to explain it to the students. It will be covered right after we cover how all of the pieces move.

# Sheet 5-1: How Queens Move and Take

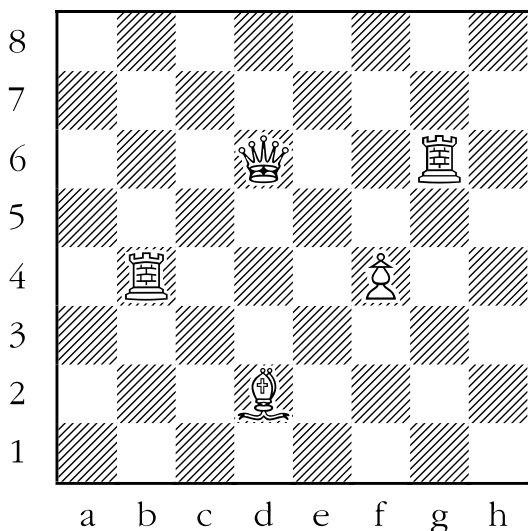
- Put an "X" on all of the squares the queen can move to next.



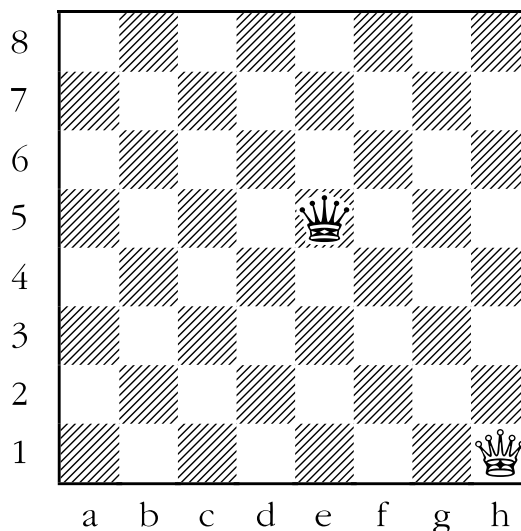
- Put an "X" on all of the squares the white queen can move to without being taken.



- Put an "X" on all of the squares the queen can move to next.

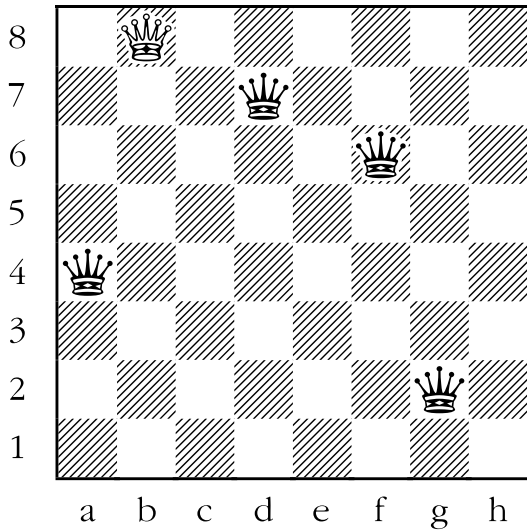


- Put an "X" on all of the squares the white queen can move to without being taken.

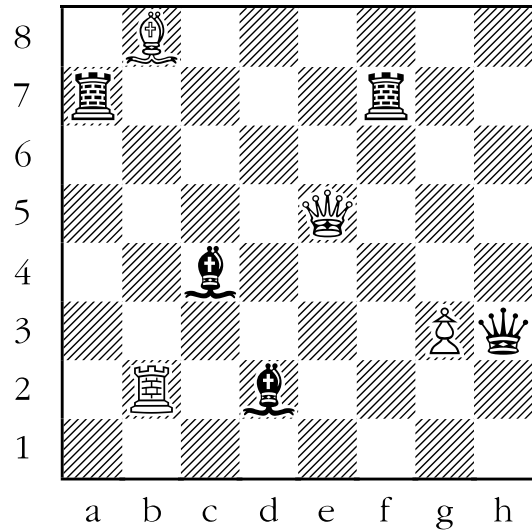


# Sheet 5-1: How Queens Move and Take

5. Put an "X" on all of the squares the white queen can go to without being taken.



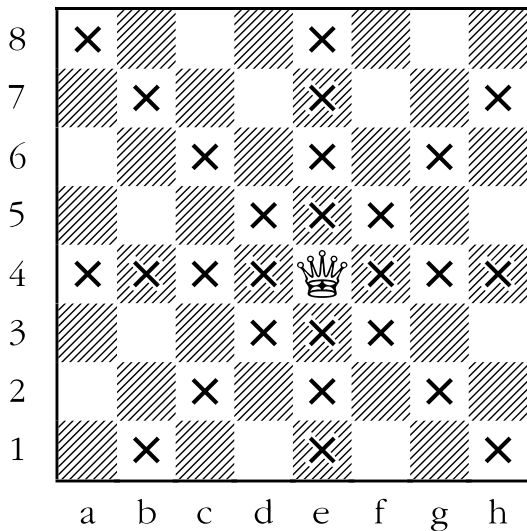
6. Put an "X" on all of the squares the white queen can go to without being taken.



# Answer Sheet 5-1: How Queens Move and Take

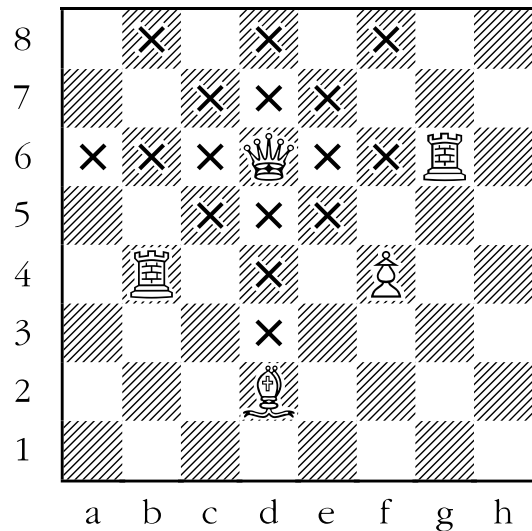
1. Put an “X on all of the squares the queen can move to next.

**ANSWER:** In the diagram below, the queen has a choice of 27 squares to move to on a wide-open board. Fourteen of those squares are ones that a rook could move to (i.e., in a horizontal or vertical direction), while thirteen are ones that a bishop could move to (i.e., in a diagonal direction).



2. Put an “X” on all of the squares the white queen can move to next.

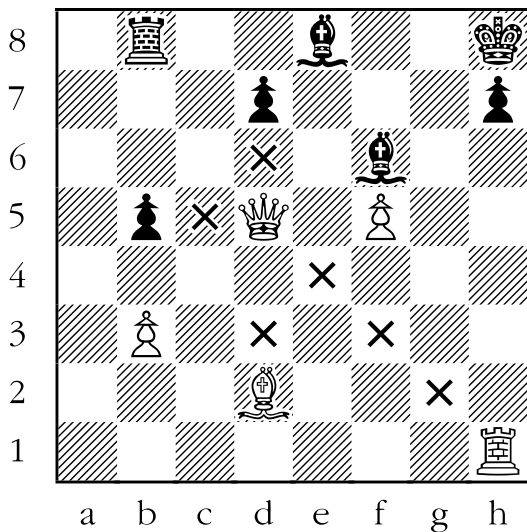
**ANSWER:** Queens can’t jump over or capture friendly pieces. In the diagram below, the white queen can’t capture any of the white pieces, or jump over any of them.



3. Put an “X” on all of the squares the white queen can move to without being taken.

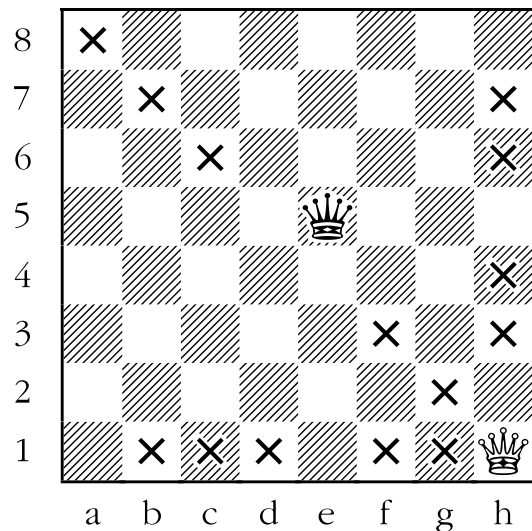
**ANSWER:** In the diagram below, the queen can make many legal moves, but only a few are safe. The following squares are unsafe for the queen to move to:

- a8 and b7, and the pawn on b5, are guarded by the black rook on b8.
- c6 and e6 are guarded by the black pawn on d7.
- d4 and e5 are guarded by the black bishop on f6.
- f7 and the pawn on d7 are guarded by the black bishop on e8.
- g8 is guarded by the black king on h8.
- c4 is guarded by the black pawn on b5.



4. Put an “X” on all of the squares the white queen can move to without being taken.

**ANSWER:** The white queen has to avoid capture by the black queen. In the diagram below, a number of squares are off-limits to the white queen because of this. These squares are: a1, e1, h2, e4, d5, h5, and h8. In all of the above examples, the black queen would be attacking its white counterpart.



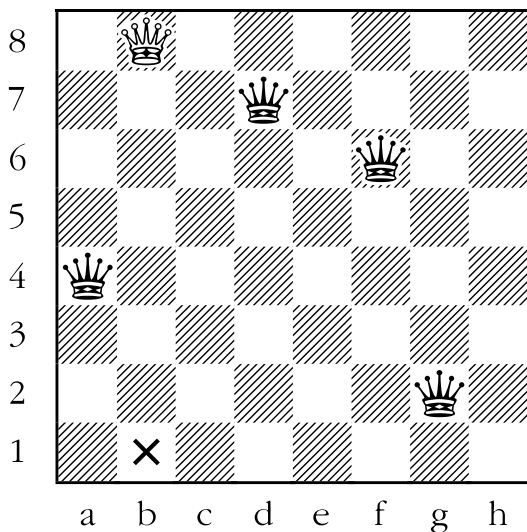
5. Put an “X” on all of the squares the white queen can move to without being taken.

**ANSWER:** The white queen must avoid capture by any of the four black queens in the diagram below. She has only one safe square, b1.

- b4 and b3 are defended by the black queen on a4.
- c8, c7, and e8 are defended by the black queen on d7.
- b6, e5, f8, and h8 are defended by the black queen on f6.
- g3, g8 and h2 are defended by the black queen on g2.

Some of the squares are defended by more than one queen:

- a8 is defended by the queens on a4 and g2.
- d8 and d6 are defended by the queens on d7 and f6.
- b7 is defended by the queens on d7 and g2.
- a7 and b5 are defended by the queens on a4 and d7.
- f4 is defended by the queens on a4 and f6.
- b2 is defended by the queens on f6 and g2.



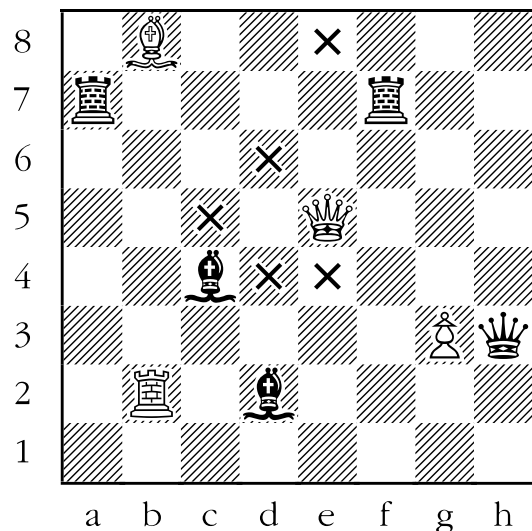
6. Put an “X” on all of the squares the white queen can move to without being taken.

**ANSWER:** The only safe squares for the white queen are: c5, d4, d6, e4 and e8. The following squares are unsafe for the white queen to move to:

- b5, e2 and d5 are defended by the black bishop on c4.
- f6 and g7 are defended by the black rook on f7.
- h5 and h8 are defended by the black queen on h3.
- g5, c3, e3, and e1 are defended by the black bishop on d2.

Some squares have multiple defenders:

- c7 and e7 are defended by both black rooks.
- a5 is defended by both the black rook on a7 and the black bishop on d2.
- f4 is defended by both the black rook on f7 and the black bishop on d2.
- f5 is defended by both the black rook on f7 and the black queen on h3.
- e6 is defended by both the black bishop on c4 and the black queen on h3.



## Lesson 6

### How Knights Move and Take (Sheet 6-1)

#### Objective:

- Teach students to move the knight correctly.

#### Skills Developed:

- Visualization.
- Pattern recognition.

The movement of the knight is probably the most difficult for the beginner to grasp. That is why it has been left for last.

There have been a number of descriptions for how the knight moves:

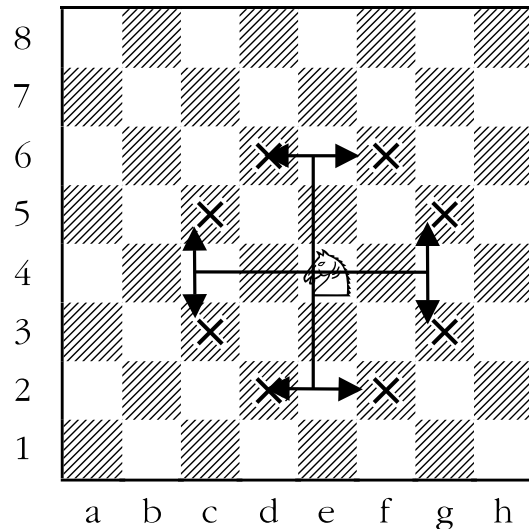
- a) It moves in the shape of the capital “L”. The “L” can be tipped over onto its side. The “L” can be backwards. The “L” can be upside down. It can also be any combination of the above.
- b) It moves to the nearest opposite coloured square not in a straight line from its point of origin.
- c) It moves one square horizontally or vertically and then one square diagonally.
- d) It moves one square horizontally then two squares vertically, or one square vertically, then two squares horizontally.

Experience has led the author to believe that for the majority of students the first and last explanations are the clearest.

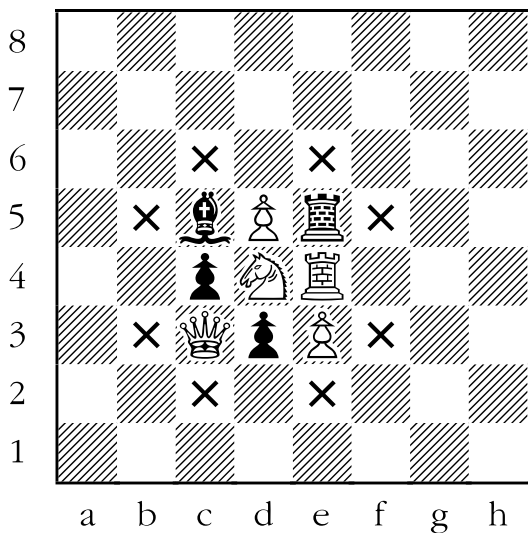
It is important that the student realize that any old “L” will not do; it must be two squares horizontally and one square vertically, or two squares vertically and one square horizontally. One way to eliminate a lot of incorrect “L’s” is to have the students remember that a knight starting on a dark square will end up on a light square, and

vice versa. Much as the bishop spends its entire existence on squares of one colour, the knight spends its entire existence alternating from a light square to a dark square and back again.

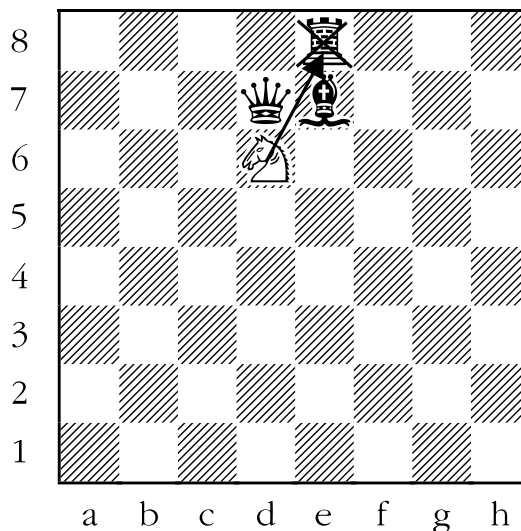
When the knight is situated near the middle of an empty board, it will attack eight squares. An example of this is shown below:



The knight is the only piece that can jump over other pieces. It can jump over both enemy and friendly pieces. In the example below, we see that since the knight can jump over both friendly and enemy pieces, having a large crowd of pieces around it does not restrict its mobility.

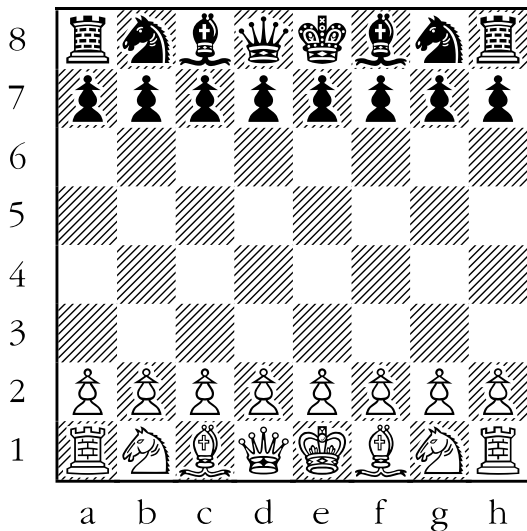


Knights capture in much the same way as any other piece. It lands on the square that the enemy piece is standing on and removes it from the board. It does not capture an enemy piece that it jumps over. An example of this is seen below. The white knight jumps over the black queen or the black bishop to take the black rook, but does not capture the black queen or black bishop while doing so.



## TASK: The King, Queen, Rook, Bishop, Knight and Pawn Game

Divide the students into pairs, and have them set up the boards as shown below:



Once again the object of the game is not exactly the same as in an actual chess game. Rather, the object of the game is to get the students to move the pieces legally (now all of the pieces) and, hopefully, to get into the habit of thinking ahead.

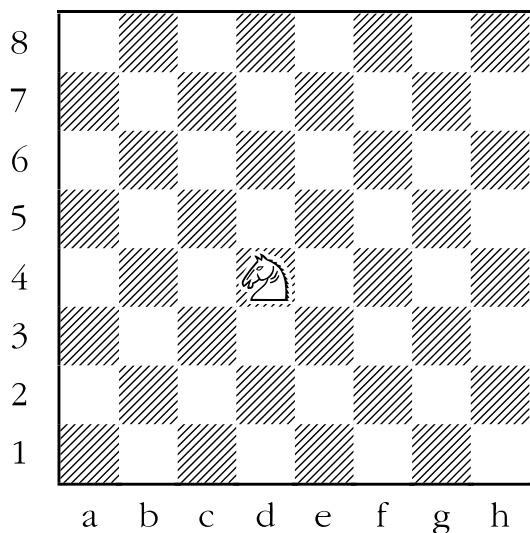
For the purposes of determining a victor, the winner is:

1. The first player to take all of his opponent's pieces (except for the king).
2. The first player to get a pawn all of the way to the other end of the board without it being captured on the opponent's very next move.
3. The player who attacks the opponent's king in such a way that the opponent has no way to get out of check (i.e. is in "checkmate").

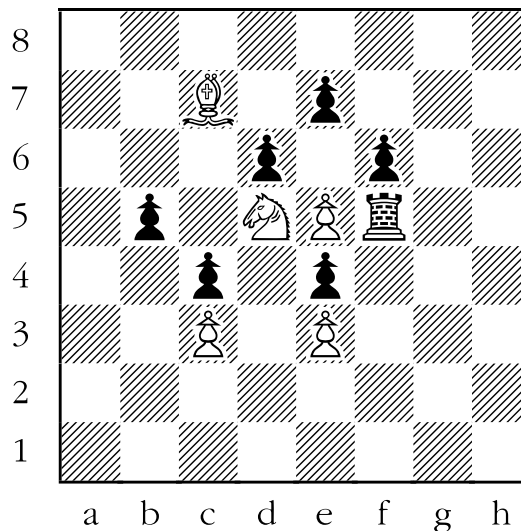
**NOTE:** Do not worry if you are still unsure of what checkmate is - and don't try to explain it to the students. It will be covered (finally!) in the next lesson.

# Sheet 6-1: How Knights Move and Take

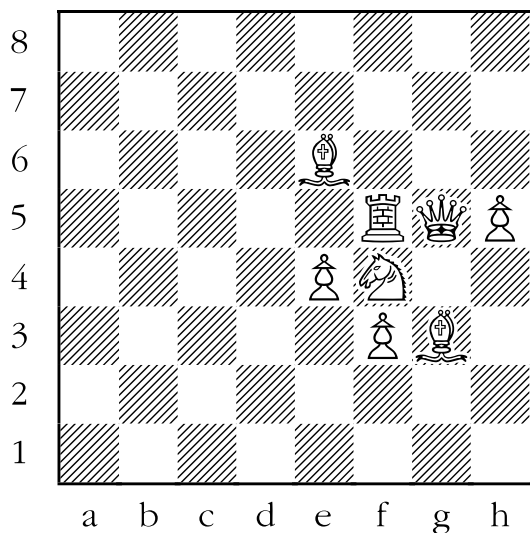
1. Put an "X" on all of the squares the knight can move to next.



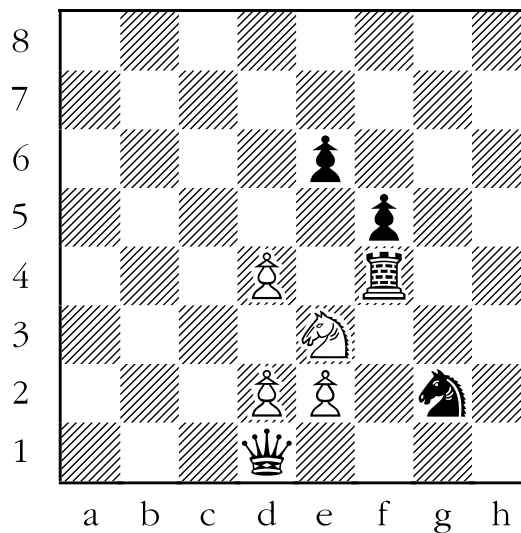
3. Put an "X" on all of the squares the white knight can move to next.



2. Put an "X" on all of the squares that the knight can move to next.

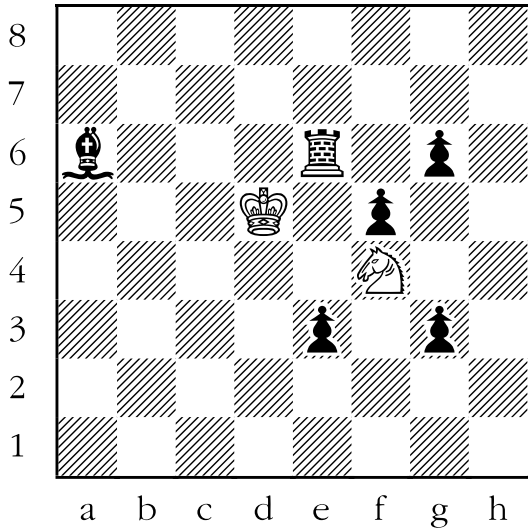


4. Put an "X" on all of the squares the white knight can move to without being taken.

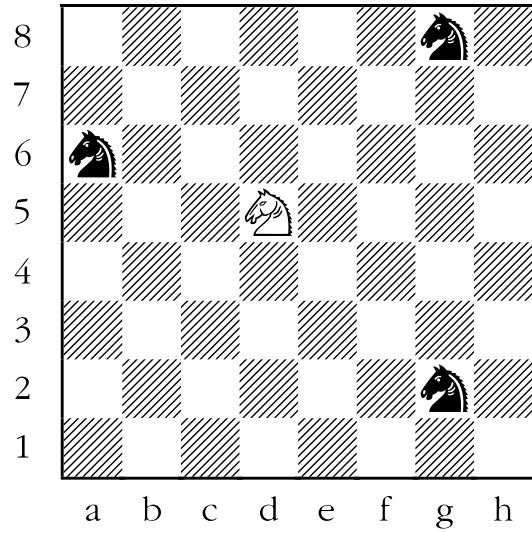


# Sheet 6-1: How Knights Move and Take

5. Put an "X" on all of the squares the white knight can move to without being taken.



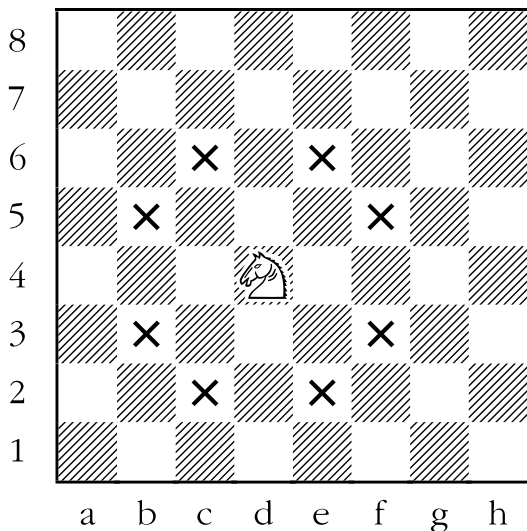
6. Put an "X" on all of the squares the white knight can move to without being taken.



# Answer Sheet 6-1: How Knights Move and Take

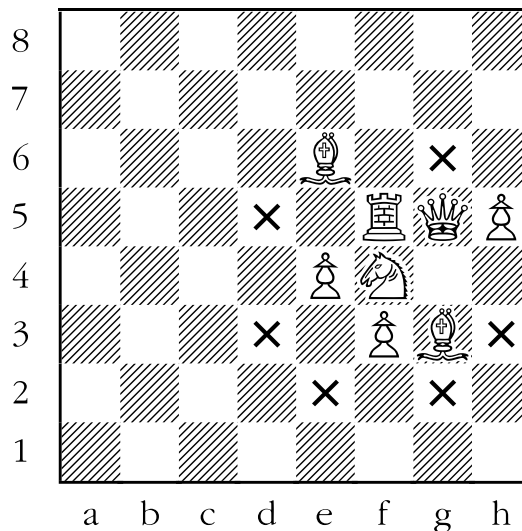
1. Put an “X” on all of the squares the knight can move to next.

**ANSWER:** The knight moves like the capital letter “L”. It moves two squares vertically and one square horizontally, or one square vertically and two squares horizontally. A knight in the centre of the chessboard without any other piece on it can move to eight squares. An example of this is shown below:



2. Put an “X” on all of the squares that the knight can move to next.

**ANSWER:** Knights can jump over friendly pieces, but can't capture them. In the diagram below, the white knight on f4 can move to six squares: d3, d5, g6, h3, g2, and e2. It can't take the bishop on e6 or the pawn on h5.

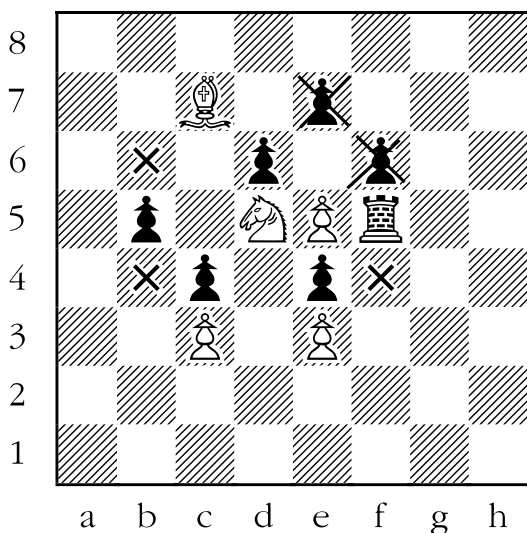


3. Put an “X” on all of the squares the white knight can move to next.

**ANSWER:** Knights can also jump over enemy pieces. The white knight on d5, seen below, can:

- jump over the black pawn on b5 and move to b4 or b6.
- jump over the white pawn on e5 and move to f4.
- jump over the white pawn on e5 and capture either of the black pawns on e7 and f6.

It can't capture either of the white pawns on c3 or e3. It also can't capture the white bishop on c7.



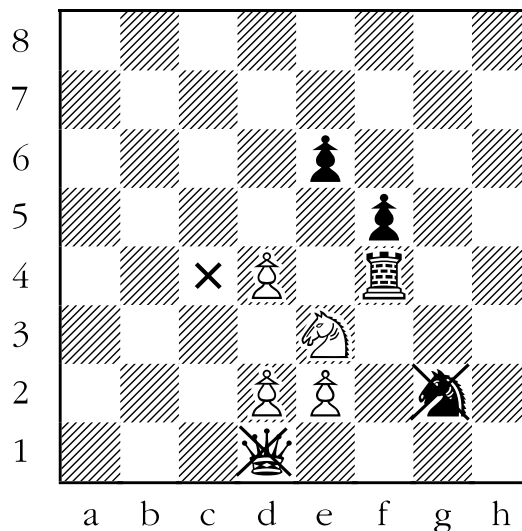
4. Put an “X” on all of the squares the white knight can move to without being taken.

**ANSWER:** The white knight has three safe squares to which it may go:

- c4 - the knight must first jump over the white pawn on d4.
- g2 - the knight can capture its black counterpart.
- d1 – the knight can jump over the white pawns and capture the black queen.

The remaining squares are not safe for the knight:

- d5 - the black pawn on e6 could take it.
- f5 - either the black rook or the black pawn on e6 could take it.
- c2 - the black queen could take it.
- f1 - either the black queen or black rook could take it.
- g4 - either the black rook or black pawn on f5 could take it.



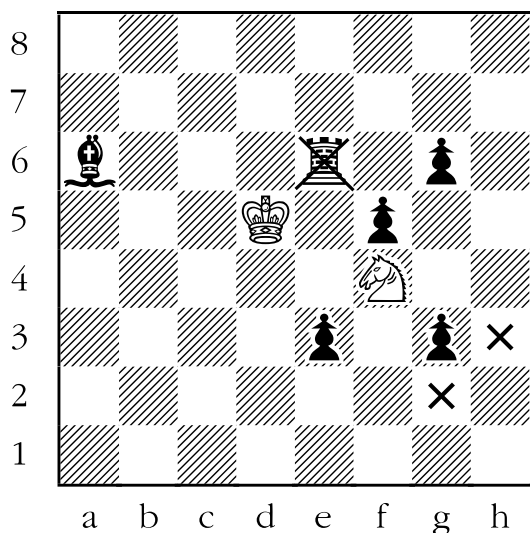
5. Put an “X” on all of the squares the white knight can move to without being taken.

**ANSWER:** The white knight has three safe squares to which it may go. The black rook on e6, which the white knight could capture and remove from the board, occupies the first. The other two safe squares are g2 and h3.

It is illegal for the knight to move to d5 as the white king is on that square and we know that no piece (including the knights) can take a friendly piece.

The four remaining squares are not safe, but are legal:

- d3 and e2 - defended by the black bishop on a6.
- h5 - defended by the black pawn on g6.
- g6 – defended by the black rook on e6.

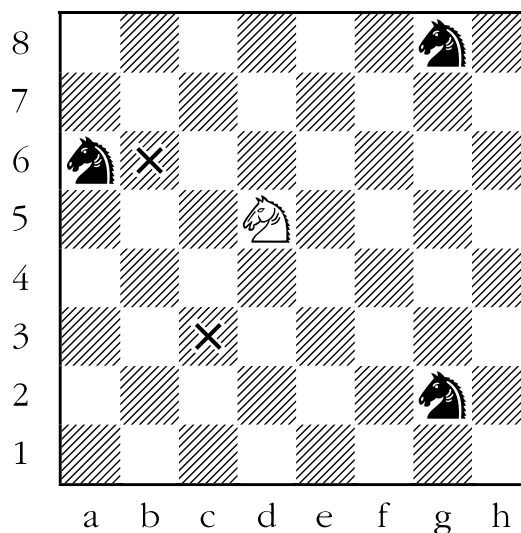


6. Put an “X” on all of the squares the white knight can move to without being taken.

**ANSWER:** The only two safe squares for the white knight to move to are c3 and b6.

The remaining squares would allow one of the black knights to take it:

- e7 or f6 - the black knight on g8 could take it.
- e3 or f4 - the black knight on g2 could take it.
- b4 or c7 - the black knight on a6 could take it.



# Lesson 7

## Check and Checkmate

### (Sheet 7-1 & 7-2)

#### Objective:

- Teach the students the concepts of check and checkmate.

#### Skills Developed:

- Elementary planning.
- Pattern recognition.

Check and checkmate - two concepts that are basic to playing and winning chess. Let's discuss them.

When a king is attacked by an enemy piece it is said to be "in check". It is then incumbent upon the player in check to find a way to get out of check. There are three general ways to get out of check. These are:

- 1) Capture the piece that is doing the checking; either with the king or with some other piece. This option should always be considered first since it not only eliminates the threat from the attacking piece, but does so permanently.
- 2) Run away. The king is not very mobile (it moves only one square at a time), but is usually mobile enough to get out of a fair amount of danger.
- 3) Interpose (block) the check with another piece. When an enemy piece is attacking from long range, it is sometimes possible to block the check with another piece.

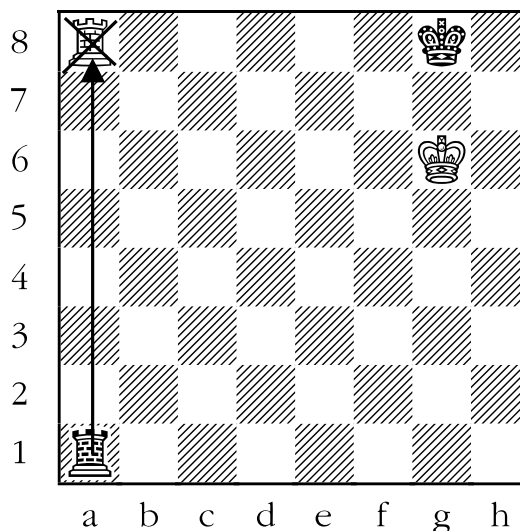
If none of these three options is possible, it's "**checkmate**", and the game is over. Remember: it can't be checkmate without it being check. Checkmate is literally "check" and "mate". In a nutshell, the components of checkmate are:

"**check**" = the king is attacked by an enemy piece

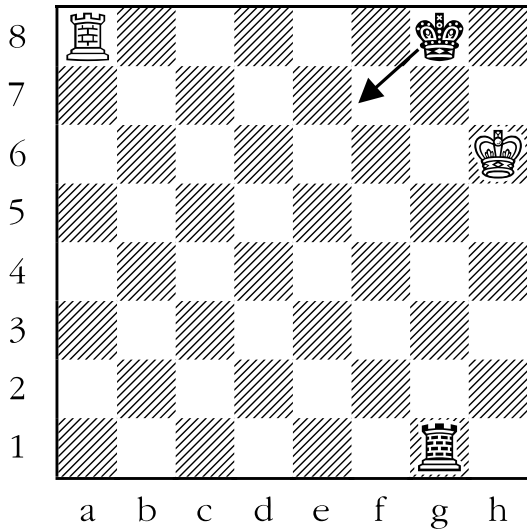
"**mate**" = there is no escape from this threat

Below are three examples of a king in check, but not in checkmate. You might consider using these examples, or other similar ones, when teaching.

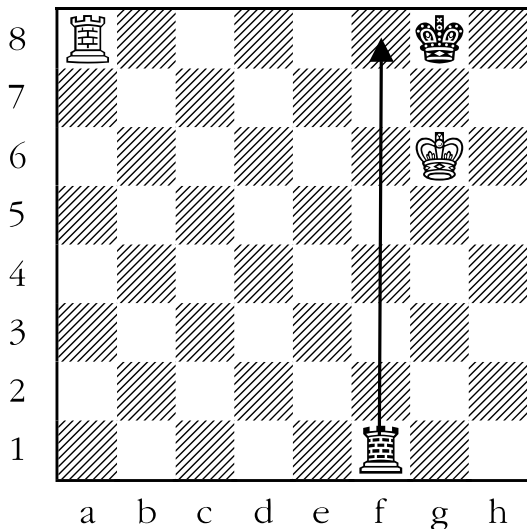
In the first example black is in check from the white rook, but is not in checkmate because the black rook can take the rook doing the checking.



In the second example the black king is once again in check from the white rook, but can flee to safety on f7.



The third example features the same theme. The black king is again under attack from the white rook. The only defense is to block the check with the black rook by moving it from f1 to f8.



One way that has proven somewhat successful when explaining checks and how to defend against them is to use the following real life analogy:

*You and a friend are involved in a (friendly) snowball fight. How do you avoid getting hit by a whole bunch of snowballs?*

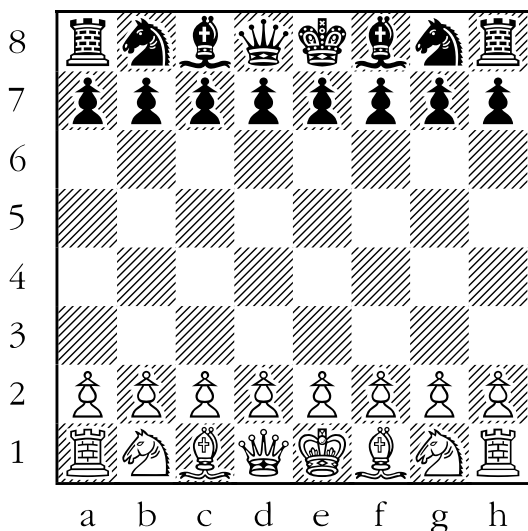
There are three possibilities:

1. Throw snowballs at your friend. Her attention will be diverted from trying to hit you to trying to defend herself, and in the meantime you will avoid getting hit.
2. Run away. If your friend can't catch you, she can't hit you.
3. Hide behind a wall, in a snow fort, etc. The snowballs will hit the obstruction, but won't hit you.

Of course, the author will deny all responsibility for the increase in snowball fights after this explanation!

## TASK: A Real Chess Game

Divide the students into pairs, and have them set up the boards as shown below:



The object of the game is now exactly the same as in an actual chess game. For the purposes of determining a victor, the winner is:

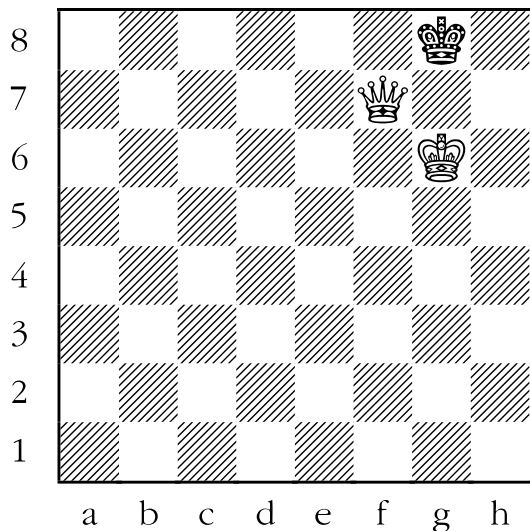
The player who attacks the opponent's king in such a way that the opponent has no way to get out of check (i.e. is in "checkmate"). Fortunately, the act of capturing all of the opponent's pieces (which was one of the criteria used to determine the winner of the pseudo chess games in the earlier lessons) is a very good way to go about checkmating the opponent.

First, it eliminates any counter-threats of checkmate to the player's own king. Second, it eliminates much of the possible techniques for defending against check discussed above. After all, if you don't have any piece other than your king, it is impossible to block a check with another piece. It is also quite a bit more difficult to capture attacking pieces when you have only one piece that can do the capturing.

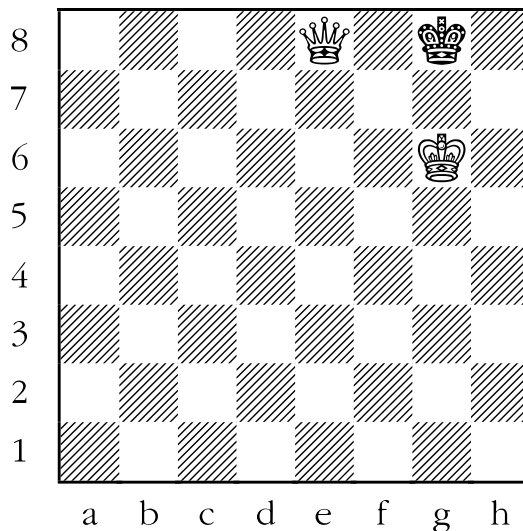
# Sheet 7-1: Check or Checkmate

Is the black king in check or in checkmate?  
If it is in check, draw an arrow to show how black gets out of check.

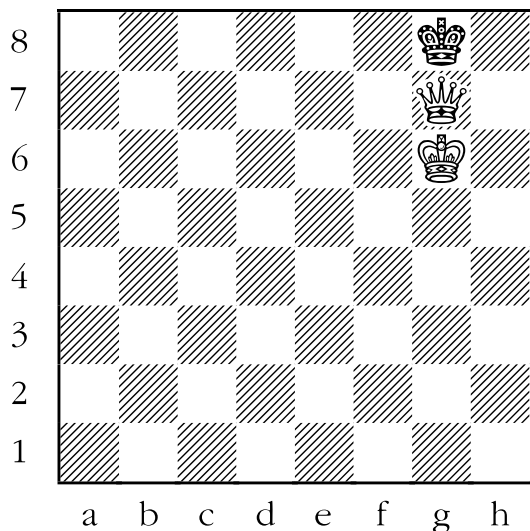
1. CHECK or CHECKMATE?



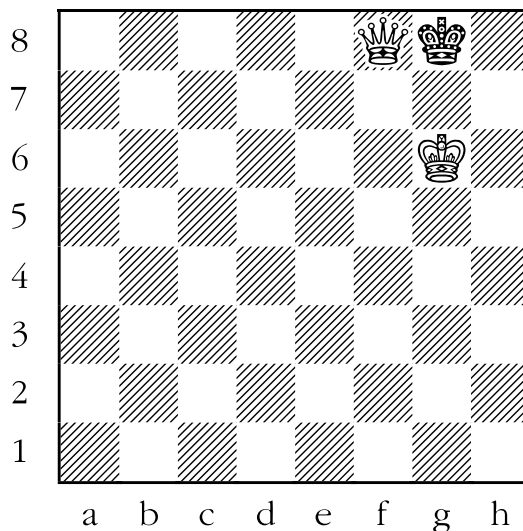
3. CHECK or CHECKMATE?



2. CHECK or CHECKMATE?

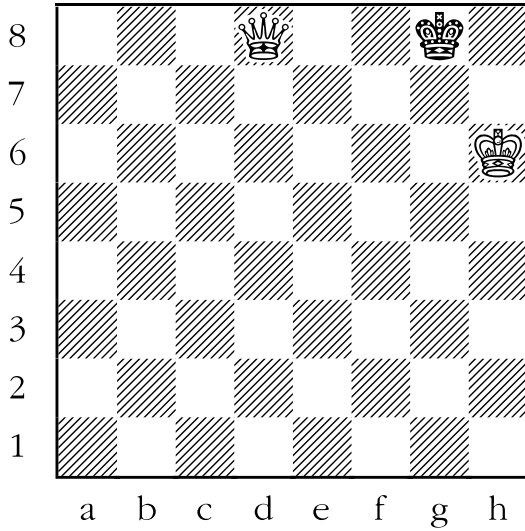


4. CHECK or CHECKMATE?

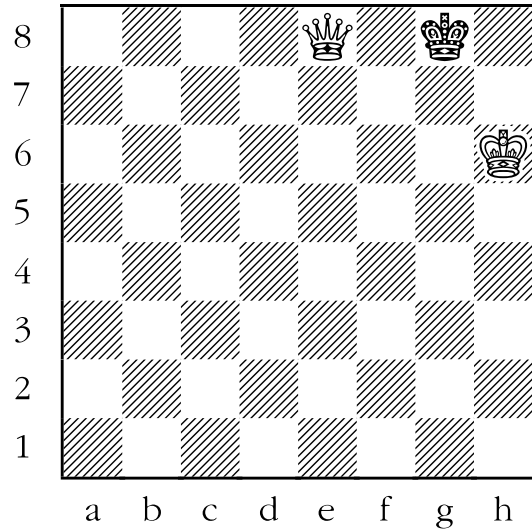


# Sheet 7-1: Check or Checkmate

5. CHECK or CHECKMATE?



6. CHECK or CHECKMATE?



## Answer Sheet 7-1: Check or Checkmate

In each of the following diagrams, is the black king in check or in checkmate? If it is only check, draw an arrow to show how black can get out of check.

**NOTE:** In all of the following examples white is trying to checkmate black's king with both a king and a queen. This is a fairly common finish to a game, and it brings out an important rule for the student to remember:

IT IS ILLEGAL FOR A PLAYER TO MOVE HIS KING NEXT TO HIS OPPONENT'S KING OR NEXT TO HIS OPPONENT'S QUEEN.

The logic behind this is that in either case the player would be moving his king into check, which we know, is illegal.

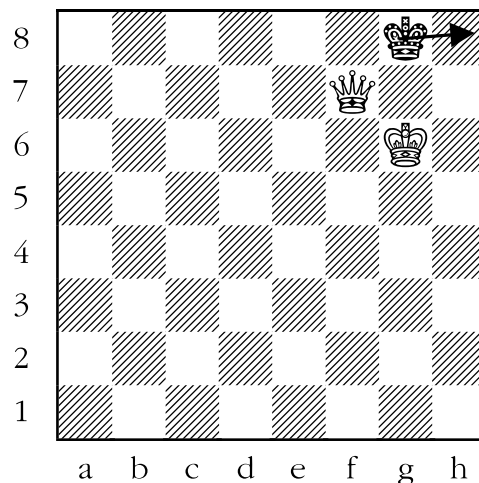
1. CHECK or CHECKMATE?

**ANSWER:** CHECK. Notice first that the white queen is attacking the black king. In this instance the king has one safe square. Which is it?

Let's find it by process of elimination:

- f7 - the king can't take the queen since that would place it under attack from the white king.
- f8 - would still leave it under attack from the white queen.
- g7 or h7 - would place it under attack from both the white queen and the white king.

That leaves only h8 as a safe place for the black king to move.

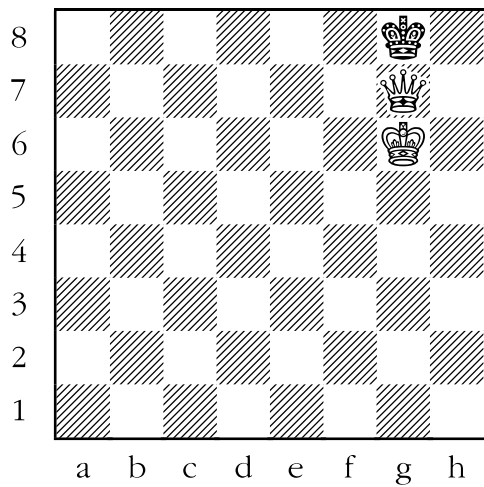


## 2. CHECK or CHECKMATE?

**ANSWER: CHECKMATE.** Once again the white queen is attacking the black king, so let's see where it can run:

- g7 - the king can't take the queen since that would place it under attack from the white king.
- f8 - would still leave it under attack from the white queen.
- h7 or f7 - would place it under attack from both the white queen and the white king.

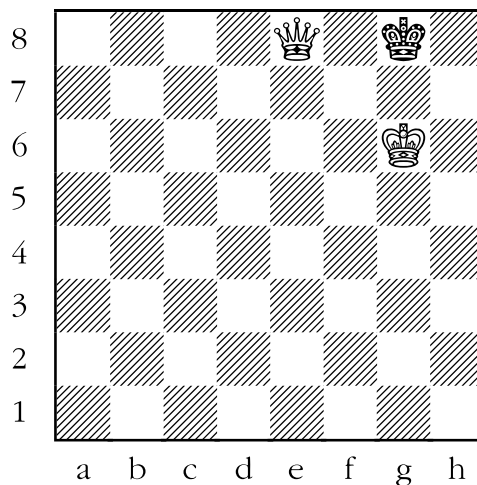
The difference here is that the escape square used in the previous example (h8) is no longer available, as the white queen guards it, too.



## 3. CHECK or CHECKMATE?

**ANSWER: CHECKMATE.** The black king is under attack ("in check") from the white queen. The king can't move to:

- f8 or h8 - would still leave it under attack from the white queen.
- g7 or h7 - would leave it under attack from the white king.
- f7 - would leave it under attack from both the white king and the white queen.

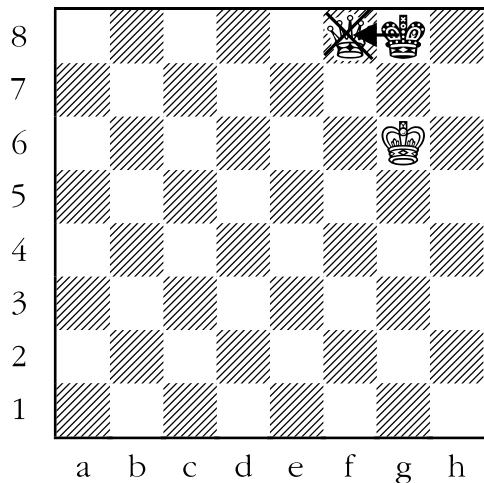


#### 4. CHECK or CHECKMATE?

**ANSWER:** CHECK. The black king is under attack from the white queen. There is only one legal move for black, but it is a very good one. The black king can take the white queen for free.

Every other move is illegal. If the black king tries to move to:

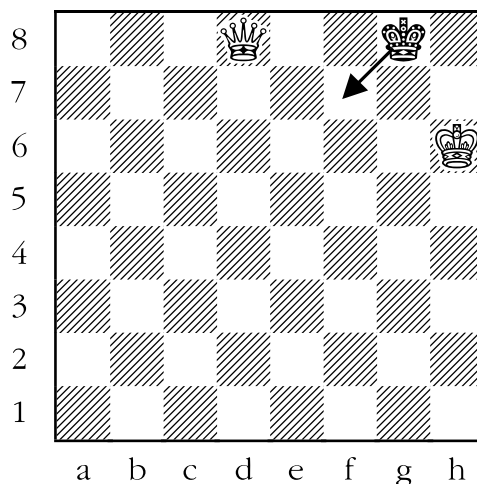
- h8 - it would still be under attack from the white queen.
- h7 - would place it under attack from the white king.
- g7 or f7 - would place it under attack from both the white king and the white queen.



#### 5. CHECK or CHECKMATE?

**ANSWER:** CHECK. The black king is under attack from the white queen, but it can escape to f7. It can't escape to:

- f8 or h8 - would still leave it under attack from the white queen.
- g7 or h7 - would leave it under attack from the white king.

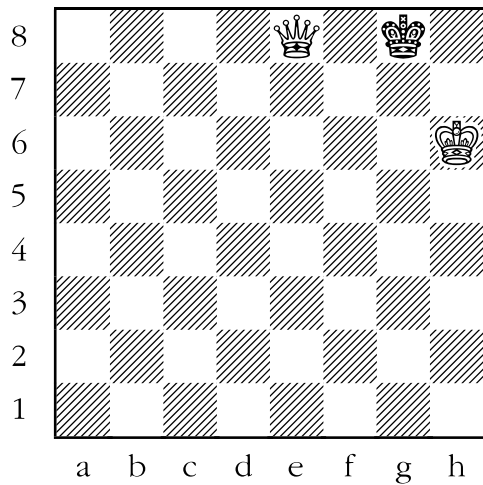


## 6. CHECK or CHECKMATE?

**ANSWER: CHECKMATE.** The black king is under attack from the white queen. It can't move to:

- f7, f8 or h8 - would still leave it under attack from the white queen.
- g7 or h7 - would place it under attack from the white king.

There is no way for the king to get out of check - it's checkmate.

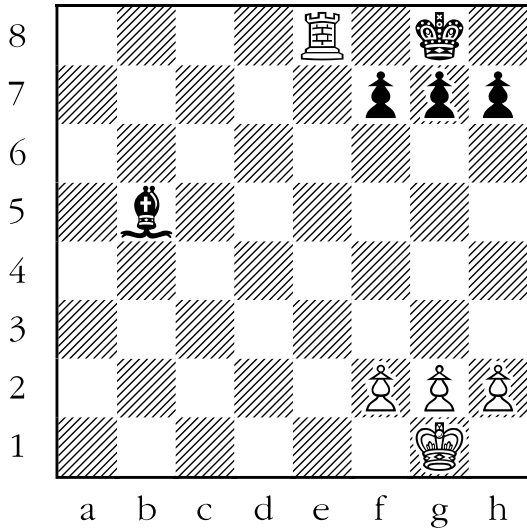


# Sheet 7-2: Check or Checkmate

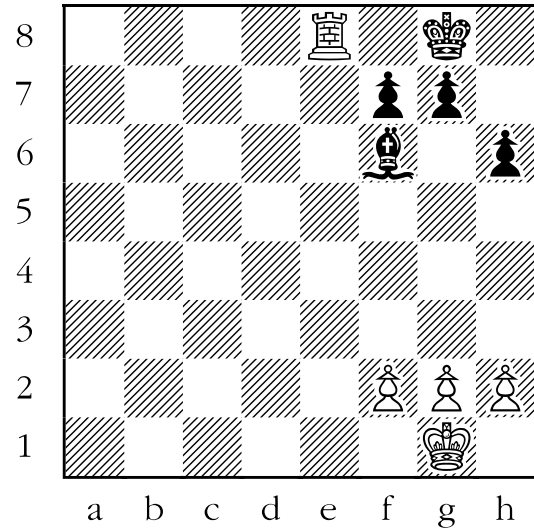
## II

Is the black king in check or in checkmate?  
If it is check draw an arrow to show how black gets out of check.

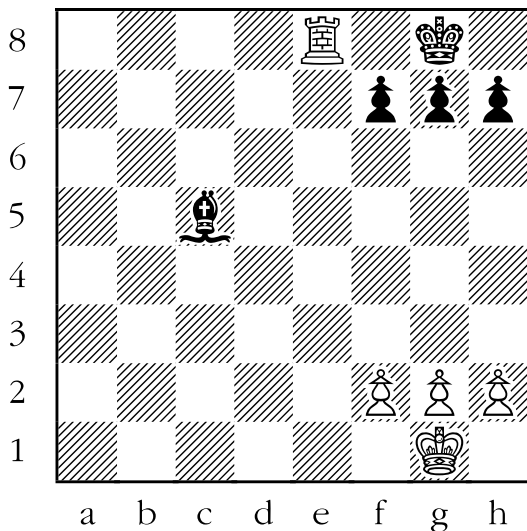
1. CHECK or CHECKMATE?



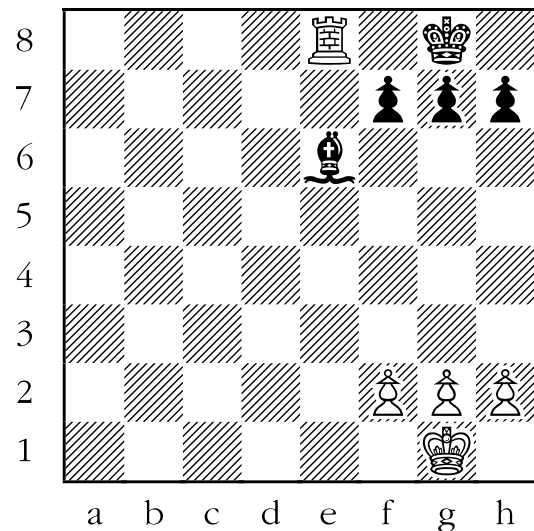
3. CHECK or CHECKMATE?



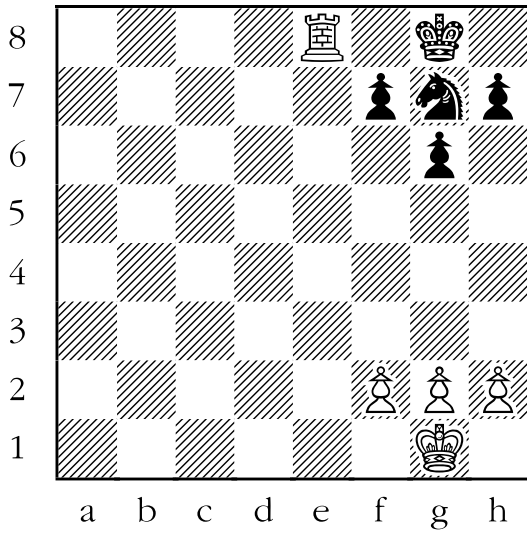
2. CHECK or CHECKMATE?



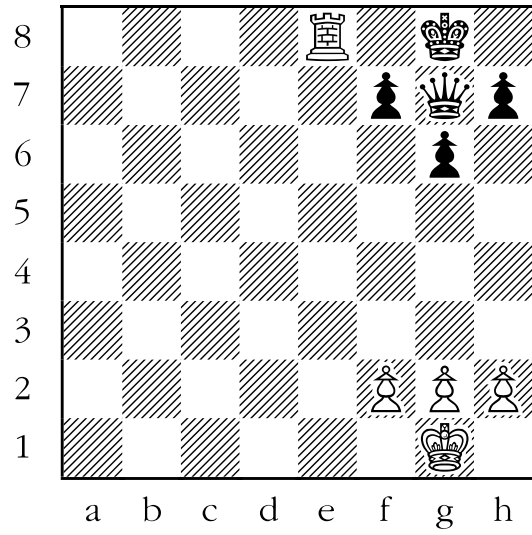
4. CHECK or CHECKMATE?



5. CHECK or CHECKMATE?



6. CHECK or CHECKMATE?

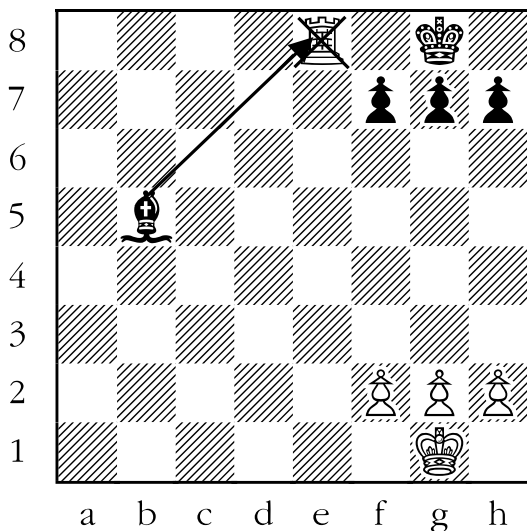


## Sheet 7-2: Check or Checkmate II

Is the black king in check or in checkmate?  
If it is check draw an arrow to show how  
black gets out of check.

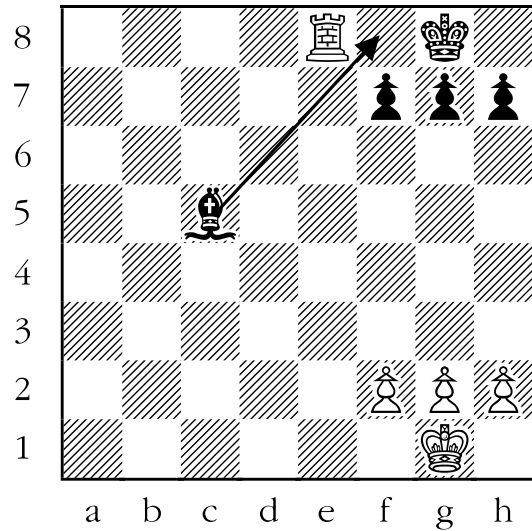
1. CHECK or CHECKMATE?

**ANSWER:** CHECK. The white rook is attacking the black king, but the black bishop can take the rook, which would eliminate the check.



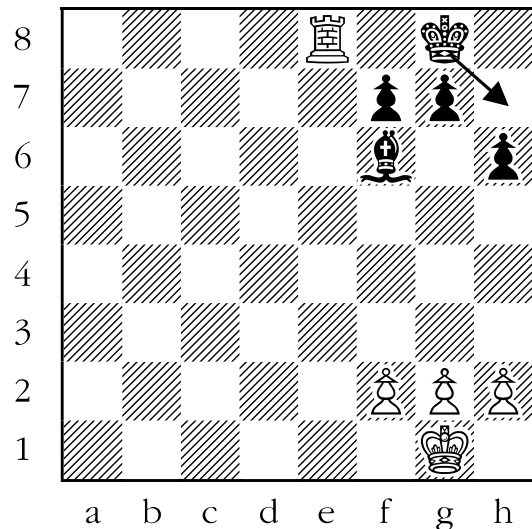
2. CHECK or CHECKMATE?

**ANSWER:** CHECK. The white rook is attacking the black king, but the black bishop can interpose on f8 between the rook and the king, which would cancel the check.



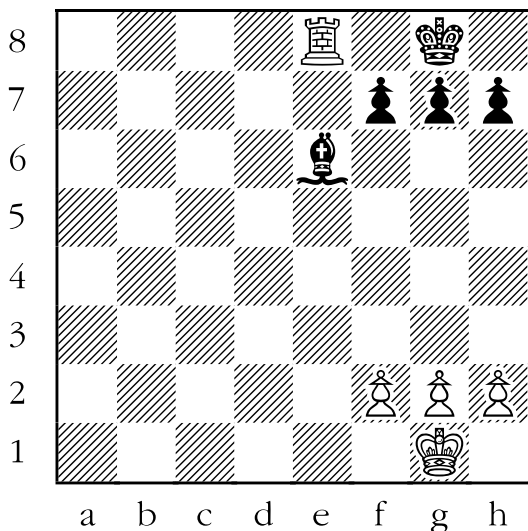
3. CHECK or CHECKMATE?

**ANSWER:** CHECK. The white rook is attacking the black king, but the king can flee to h7 in response to the check.



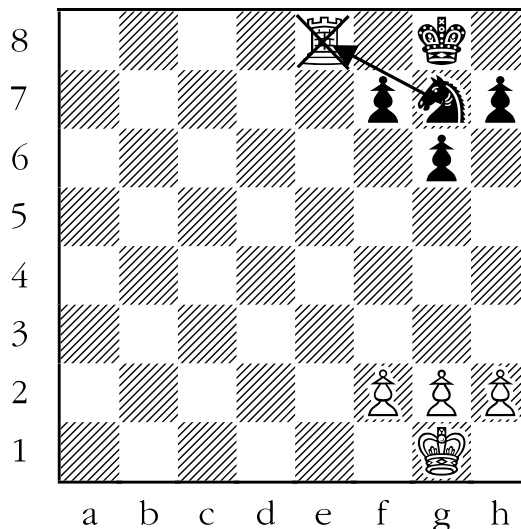
4. CHECK or CHECKMATE?

**ANSWER:** CHECKMATE. Yet again, the white rook is attacking the black king, but in this case no piece can take the rook (remember, bishops capture diagonally, and pawns can't capture backwards). Also, no piece can interpose itself between the rook and the king; and the king doesn't have a flight square to move to where it would no longer be in check.



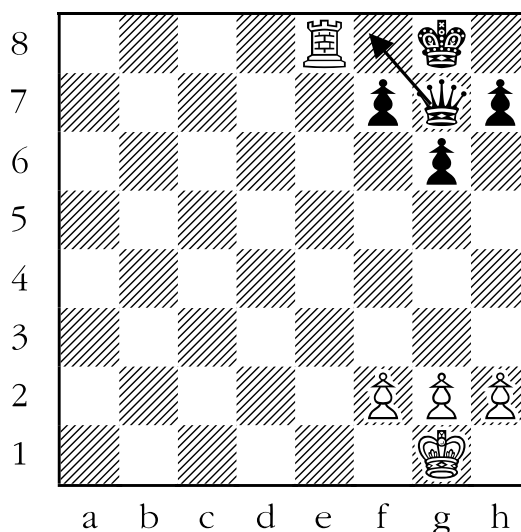
5. CHECK or CHECKMATE?

**ANSWER:** CHECK. The white rook is once again attacking the black king. Fortunately for black, he can take the white rook with his knight, thereby eliminating the threat to his king.



6. CHECK or CHECKMATE?

**ANSWER:** CHECK. The white rook is yet again attacking the black king. Black can stop the check by using the queen to interpose itself between the rook and the king, parrying the check.



# Lesson 8

## Stalemate and Checkmate

### (Sheet 8-1 & 8-2)

#### Objective:

- Teach the difference between stalemate and checkmate.

#### Skills Developed:

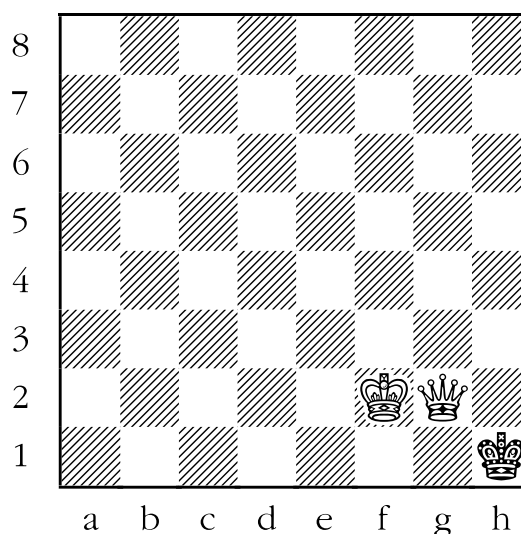
- Ability to recognize specific situations from general rules.

Some games have decisive results; others are drawn (tied). One of the ways that games are drawn is when stalemate occurs. What is stalemate? Let's compare definitions:

**Checkmate:** The king is under attack ("in check"). There is no way for the player under attack to parry the threat to the king. The side doing the checkmating wins the game.

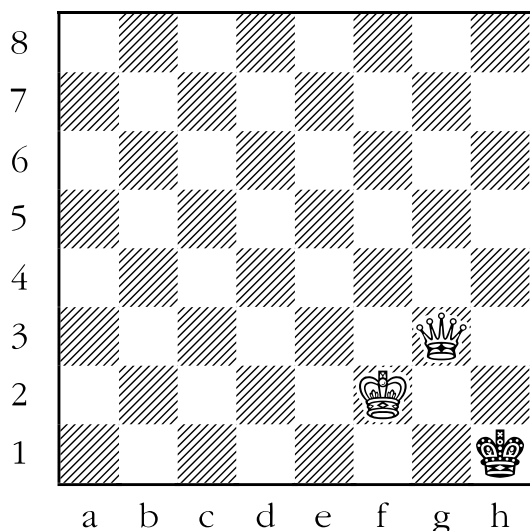
**Stalemate:** The king is not under attack ("in check"), but if the player were to make any legal move, that player's king would be under attack. Since a player is not allowed to make a move that would place the king in check, there are no legal moves. The game is a draw (tie).

Let's see this on a chessboard. The first diagram is checkmate, the second stalemate.



Above, we see a sample checkmate. The black king is under attack. The black king can't take the white queen because that would place it under attack from the white king. The black king can't move to h2 because it would still be under attack from the white queen. The black king can't move to g1 because it would be under attack from the both the white king and the white queen.

Now let's compare this to the position below:



The black king is not under attack from any white piece. Let's try moving the black king. It is not allowed to move to:

- h2 - that would put it in check from the enemy queen.
- g1 or g2 - that would put it in check from both the white queen and the white king.

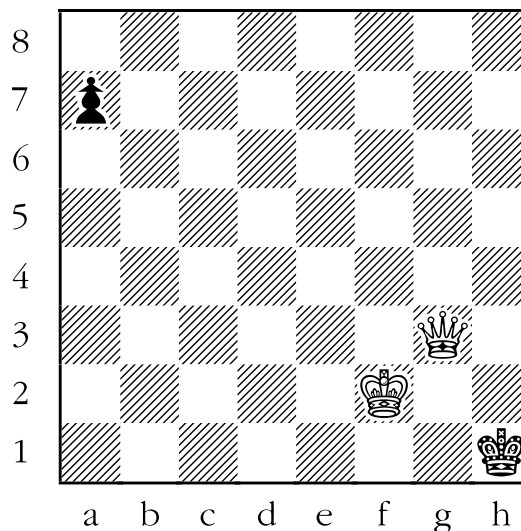
We have a problem. If black can't move his king because that would place it in check, and he has no other piece that can move, what can he do? Well, he can't do anything, and therefore the game is a draw (tie).

The most common scenario for producing stalemates is where one player has many pieces and the other player has only a king. Try to explain to the students that when they have an overwhelming material advantage, and they are planning to play a move that isn't "check" (i.e. attacking the opponent's king), they should make sure that the opponent has a legal move. Better to be safe than sorry.

One last note about stalemate. Let's add two pawns, one at a time, to the

previous diagram and see how it changes the result. You might want to use a board and pieces for this if you like, though that's not necessary.

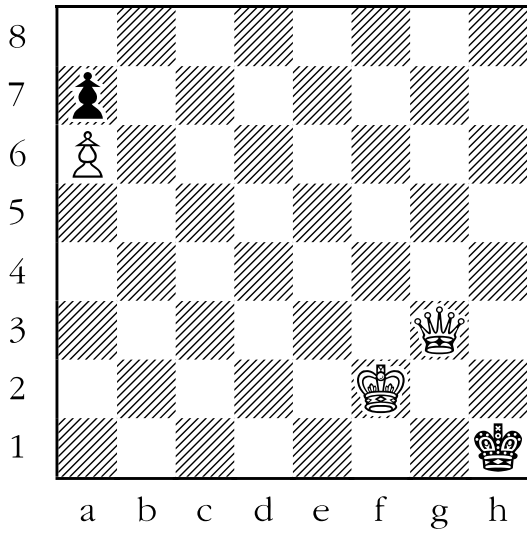
First, we add a black pawn to a7, producing the following position: Is this position stalemate?



NO. The reason is that although the black king can't move, just as in the previous diagram, black does have two legal moves available. Black can move his pawn to a6 or move it to a5. After black moves, then white might checkmate black by playing one of: queen to g1, queen to g2, queen to h4 or queen to h3.

Okay, now let's add another pawn, a white one on a6.

Is this position stalemate?

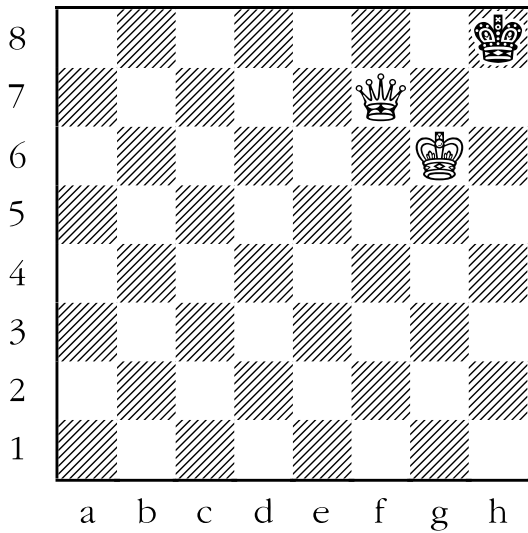


YES. The black king can't move, and neither can the black pawn (the white pawn is blocking its way). No black piece can legally move. Stalemate.

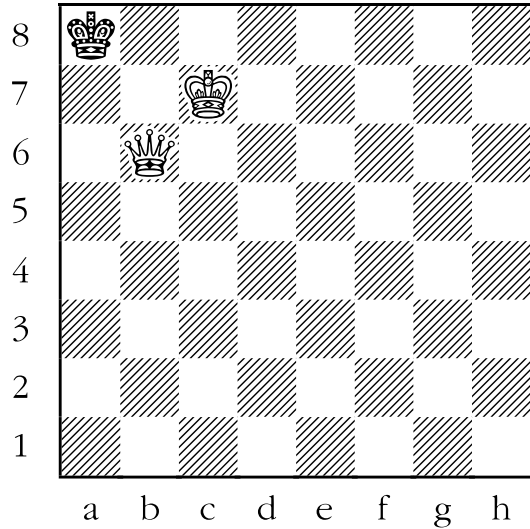
# Sheet 8-1: Stalemate or Checkmate

Is the black king in stalemate or in checkmate?

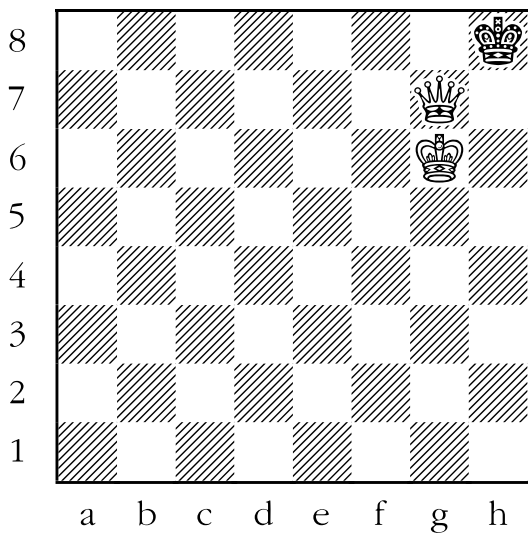
1. STALEMATE or CHECKMATE?



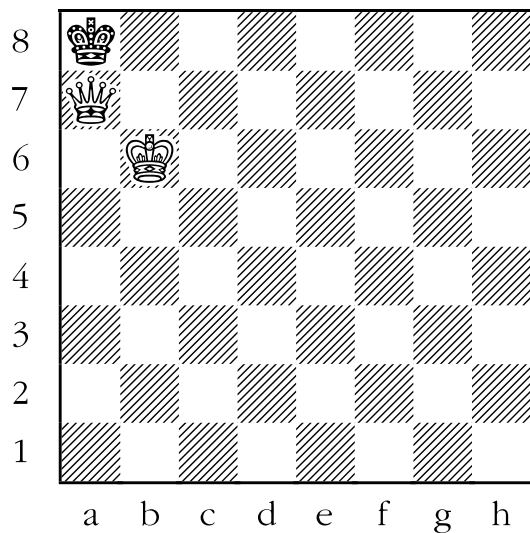
3. STALEMATE or CHECKMATE?



2. STALEMATE or CHECKMATE?

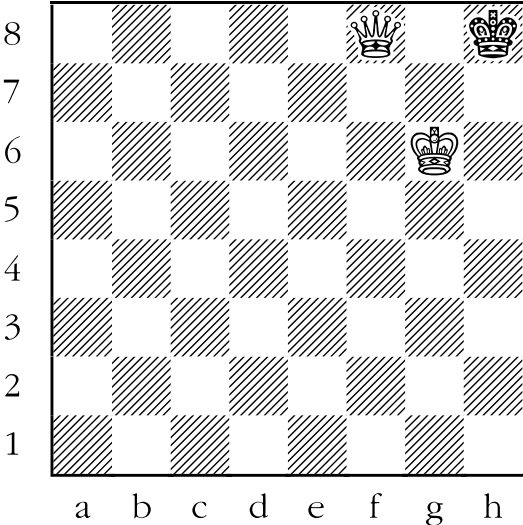


4. STALEMATE or CHECKMATE?

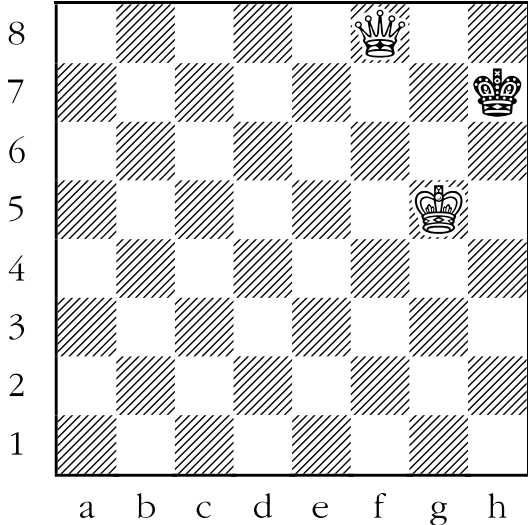


# Sheet 8-1: Stalemate or Checkmate

5. STALEMATE or CHECKMATE?



6. STALEMATE or CHECKMATE?

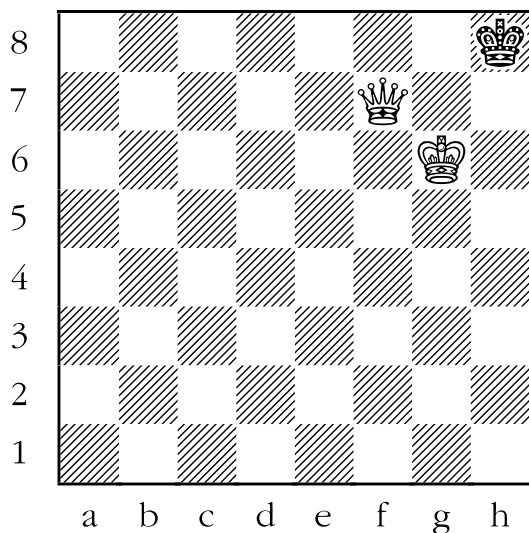


## Answer Sheet 8-1: Stalemate or Checkmate

Is the black king in stalemate or in checkmate?

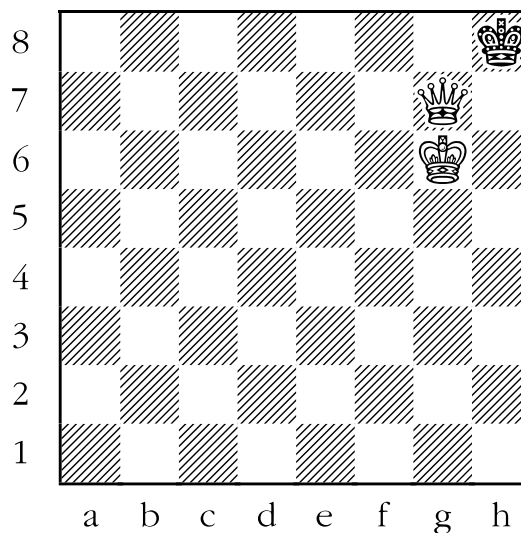
1. STALEMATE or CHECKMATE?

**ANSWER:** STALEMATE. There is no other black piece on the board, so the black king must move. The black king is not under attack (“in check”) at the moment. If it moved to any of the squares g8, g7, or h7, he would be in check. A king is not allowed to move into check, therefore it is stalemate. The game is a draw (tie).



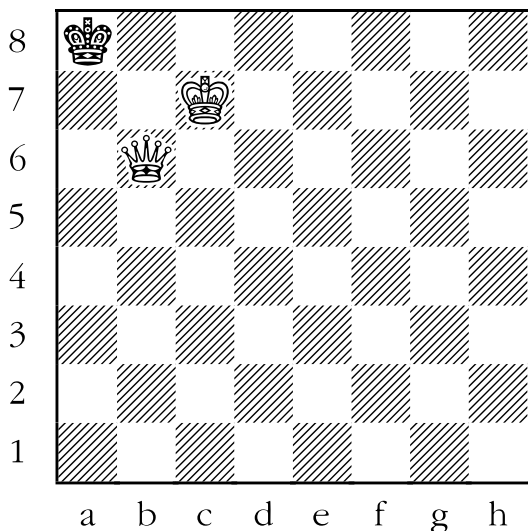
2. STALEMATE or CHECKMATE?

**ANSWER:** CHECKMATE. The black king is attacked (“checked”) by the enemy queen. The king can’t take the queen because the white king is defending the queen. The black king can’t move to h7 or g8 because it would still be under attack from the enemy queen. Under attack + no escape = checkmate.



### 3. STALEMATE or CHECKMATE?

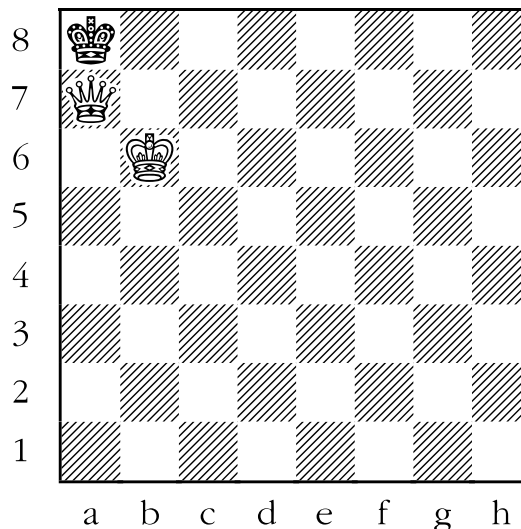
**ANSWER:** STALEMATE. This position is very similar to the position in diagram 1. The reason that this is covered twice is that a great number of students will stalemate their opponents in positions that will look remarkably similar to this one. Here the black king has no square that it can move to where it won't be attacked by (at least) white's queen.



### 4. STALEMATE or CHECKMATE?

**ANSWER:** CHECKMATE. The white queen is attacking (“checking”) the king. It can't:

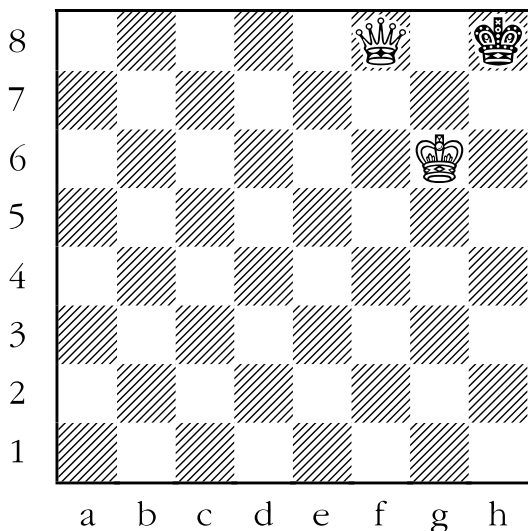
- take the white queen - it would be under attack from the white king.
- move to b8 - it would still be under attack from the white queen.
- move to b7 - it would be under attack from both the white queen and the white king.



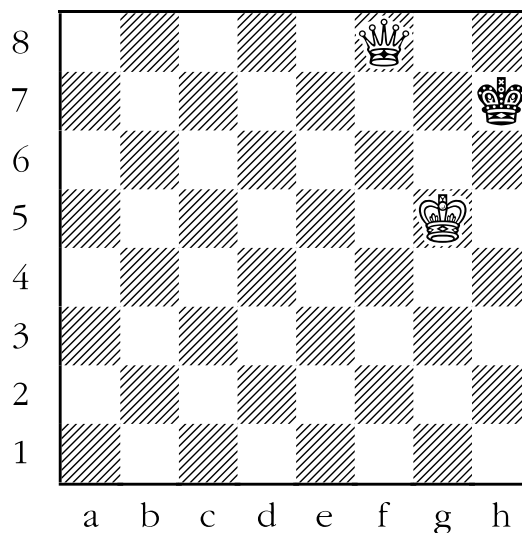
5. STALEMATE or CHECKMATE?

**ANSWER:** CHECKMATE. The white queen is attacking (“checking”) the black king. The king can’t move to:

- g8 - it would still be under attack from the white queen.
- h7 - it would be under attack from the white king.
- g7 - it would be under attack from both the white king and the white queen.



**ANSWER:** STALEMATE. The black king is not under attack from any white piece. If the black king moves to g8, g7 or h8 it would be under attack from the white queen. If it moves to g6 it would be under attack from the white king. If it moved to h6 it would be under attack from both the white king and the white queen.

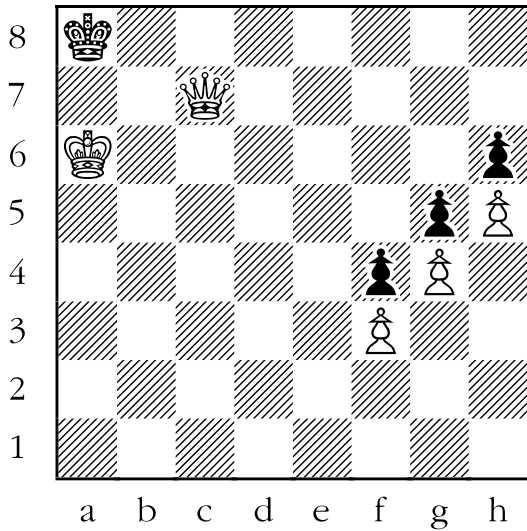


6. STALEMATE or CHECKMATE?

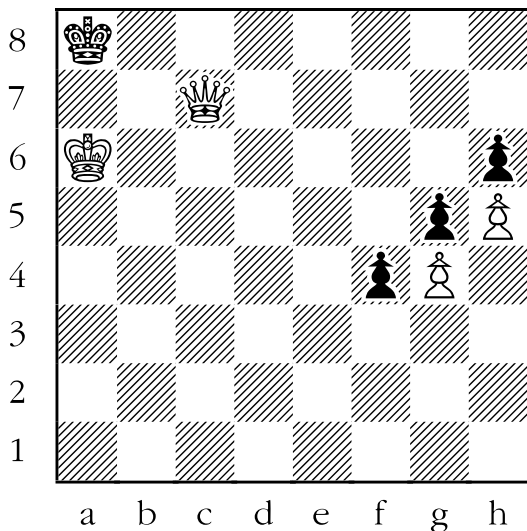
# Sheet 8-2: Stalemate, Check, Checkmate, or None of Them

In the following diagrams, is the black king in stalemate, checkmate, check, or none of them?

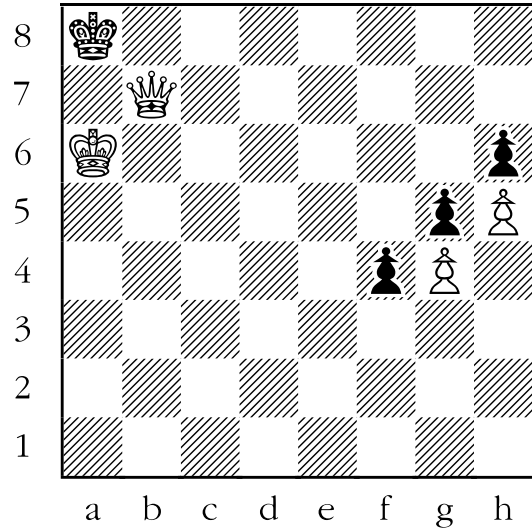
1. STALEMATE, CHECKMATE, CHECK or NONE OF THEM?



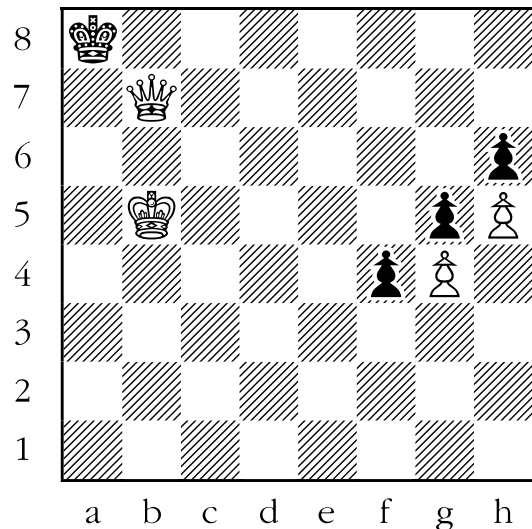
2. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?



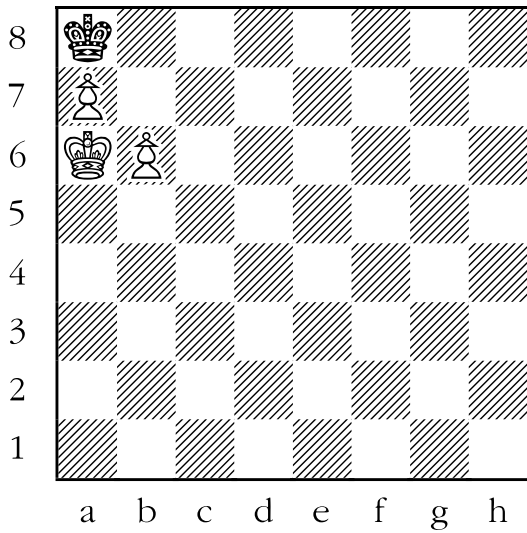
3. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?



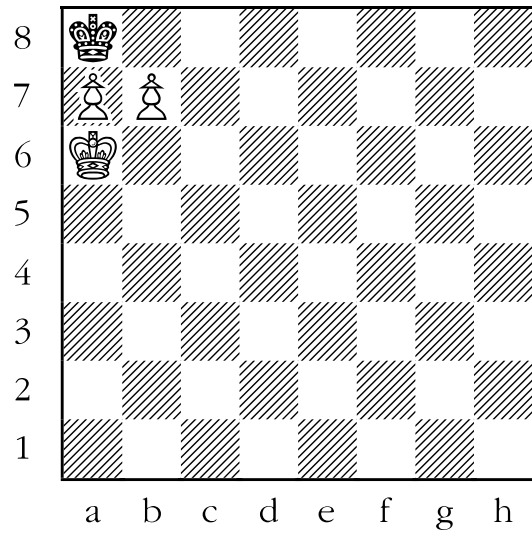
4. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?



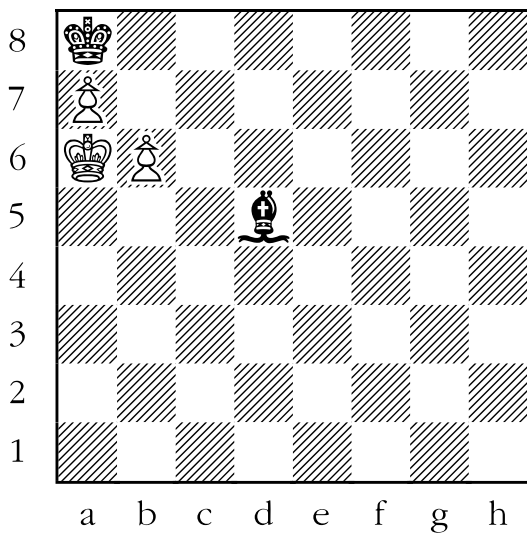
5. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?



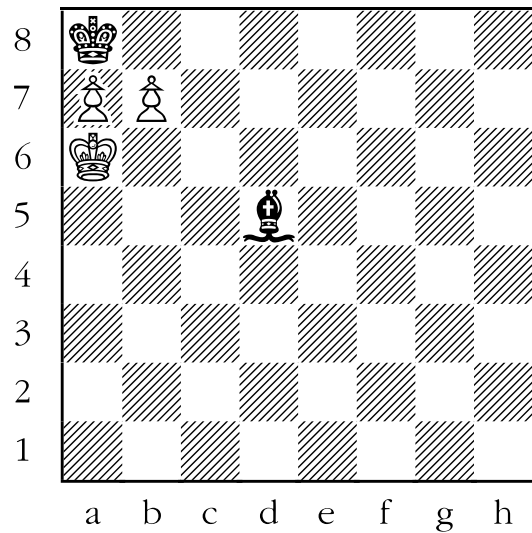
7. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?



6. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?



8. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

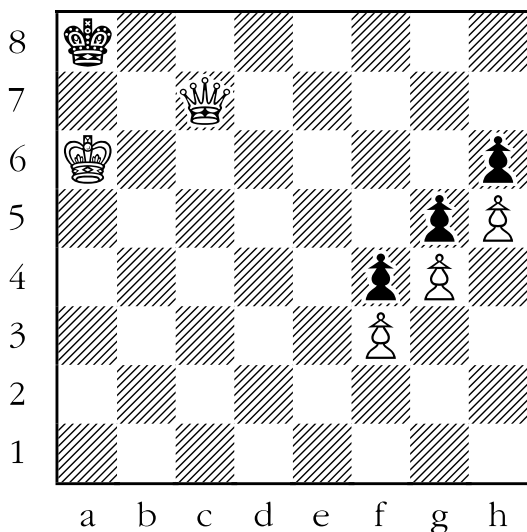


## Sheet 8-2: Stalemate, Check, Checkmate, or None of Them

In the following diagrams, is the black king in stalemate, checkmate, check, or none of them?

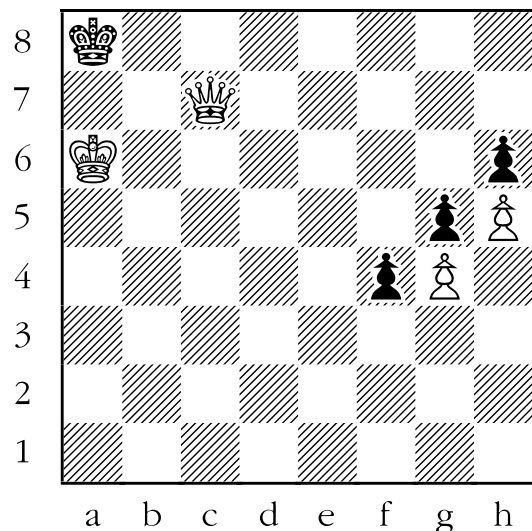
1. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

**ANSWER:** STALEMATE. The black king isn't presently in check from any white piece. It isn't check and therefore can't be checkmate. The black king can't move to any of a7, b7, or b8 without being in check. He can't move any of his pawns because each of them is blocked by a white pawn. Therefore black has no legal moves; it's stalemate, a draw.



2. STALEMATE, CHECKMATE, CHECK or NONE OF THEM?

**ANSWER:** NONE OF THEM. This position is virtually identical to the previous position, but the white pawn on f3 has been taken away. The black king is not in check, so he also can't be in checkmate. But he is also not in stalemate, because, though the king can't move without being attacked by at least one of the white king or white queen, he still has a legal move. That move is to move the black pawn from f4 to f3.

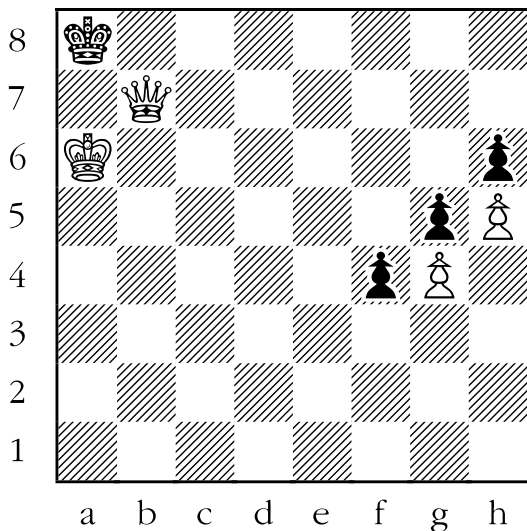


3. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

**ANSWER: CHECKMATE.** The position is almost identical to the previous one, but now the black king is under attack (“in check”) from the white queen. The black king can’t:

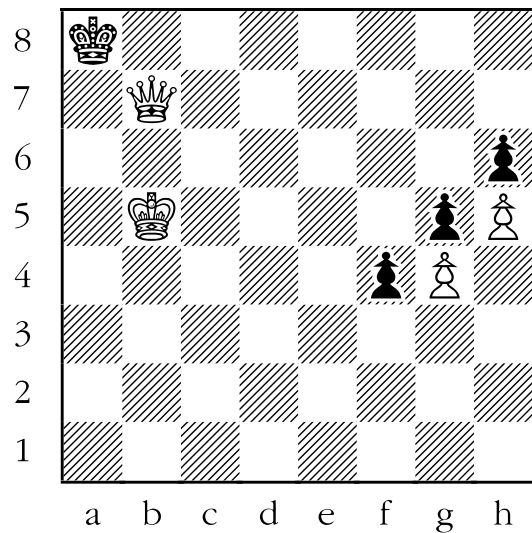
- take the white queen because that would put it in check from the white king.
- move to either a7 or b8 because it would still be attacked by at least the white queen.

Furthermore, none of the black pawns can legally take the white queen.



4. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

**ANSWER: CHECK.** The white queen again attacks the black king, but in this instance the king can take the queen freely, since the white king no longer protects the queen.

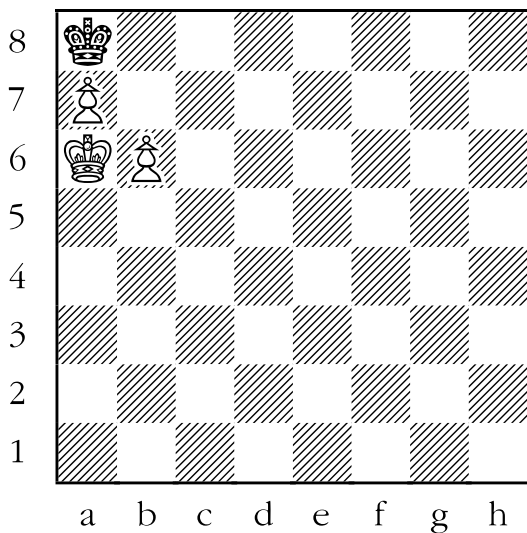


5. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

**ANSWER:** STALEMATE. The black king is not in check, and therefore is not in checkmate. The king can't move to:

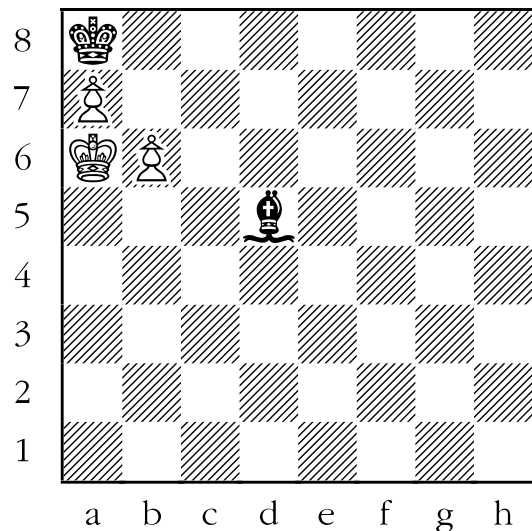
- b8 - it would be in check from the pawn on a7.
- b7 - it would be in check from the white king.

Furthermore, it can't take the pawn on a7, since that would put it in check from both the white king and the white pawn on b6.



6. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

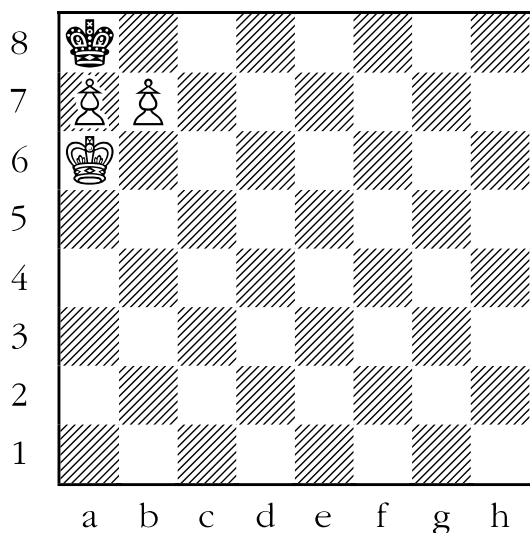
**ANSWER:** NONE OF THEM. The black king is not in check from any of the white pieces. The black king doesn't have a legal move. But black can still move his bishop so it isn't stalemate.



7. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

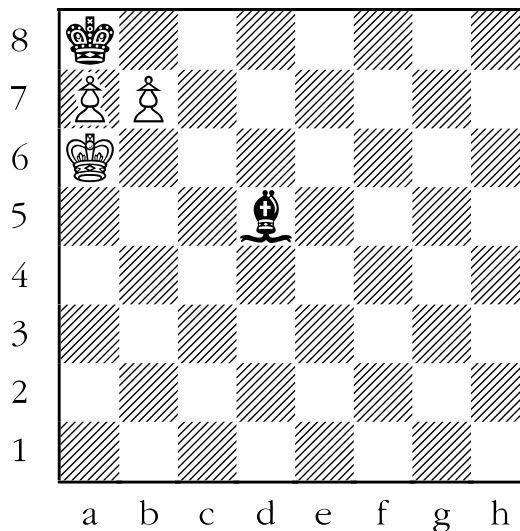
**ANSWER:** CHECKMATE. The black king is in check from the white pawn on b7. It can't:

- take the pawn, because it would then be in check from the white king.
- escape to b8 because then it would be attacked by the white pawn on a7.
- take the white pawn on a7, because it would put the black king in check from the white king.



8. STALEMATE, CHECKMATE, CHECK, or NONE OF THEM?

**ANSWER:** CHECK. The black king is again under attack from the white pawn on b7. But here he can save himself by taking the white pawn on b7 with his bishop. So, the black king is in check, but not checkmate.



# Lesson 9

## Pins (Sheet 9-1)

### Objective:

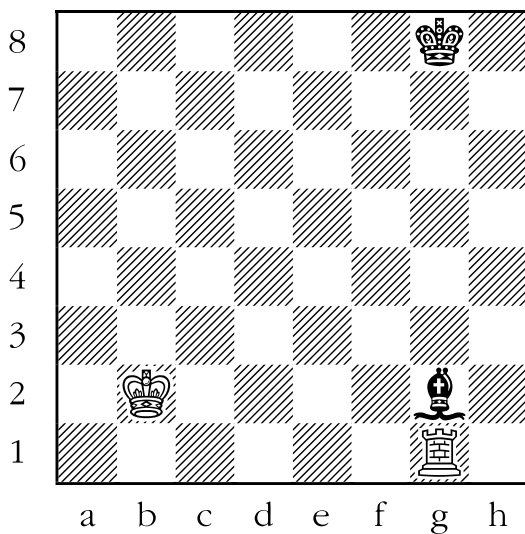
- Teach students that one may not move a piece that places one's own king in check – this is an example of a pin.

### Skills Developed:

- Visualization.

Sometimes a piece that is attacked can't move because it will uncover an attack on an even more valuable piece. This tactic is known as **“the pin”**. An example of a pin against the king is seen below.

White has just moved his rook to g1, attacking the black bishop on g2. Black would like to move the bishop out of the way, but that would be illegal. The reason that it is illegal is that if the bishop moved, the white rook would be attacking (“checking”) the black king. *As you recall, it is not legal for you to move into check, and indirectly that is what black has done here.* Since black can't move his bishop, he will lose it on the next move if white chooses to take it.



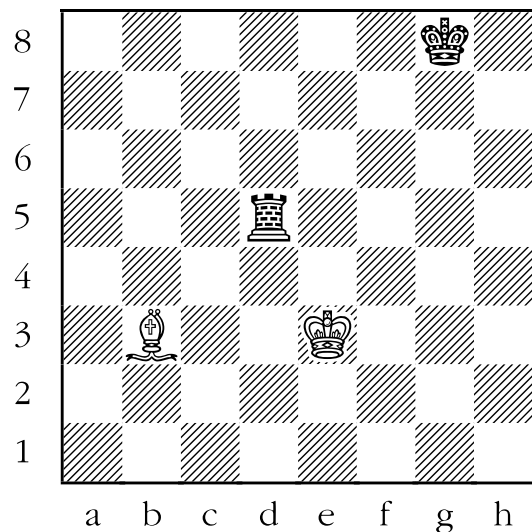
### Only three pieces can pin other pieces.

These are the long-range pieces: the queen, the rook, and the bishop. Pawns, kings, and knights can't pin other pieces.

The way to see if a particular piece is pinned is to visualize whether their king would be check from some enemy piece if that piece were missing from the board. If the answer to this is **yes**, then that piece is pinned.

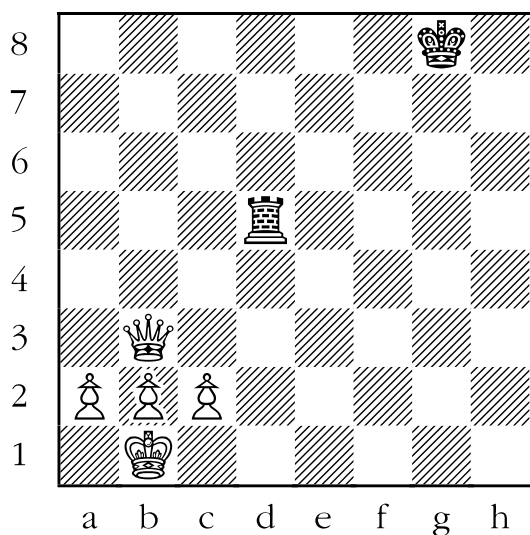
Here are two more examples of pins.

In the first example, a bishop is pinning a rook. Black would like to move his rook, but unfortunately, that is not allowed. Why? Because if the rook moved, the bishop would be checking the black king, and it is absolutely illegal to make a move which leaves one's own king in check.



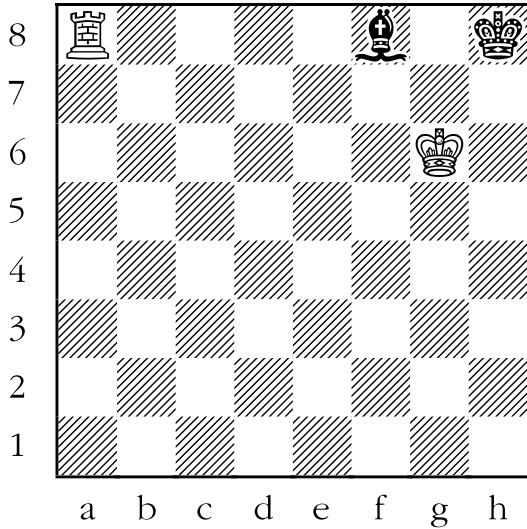
Below, we see a dramatic example of a queen doing the pinning. Black wants to move his rook to d1, since that would deliver checkmate to the white king (the king has no escape from the check). He goes to play the winning move ... but his opponent correctly points out that black can't move this rook - even to deliver checkmate - because the rook is pinned, and if it moves, the black king would be in check.

Learning about pins is important. It adds further weight to the idea that under no circumstances is a player allowed to play any move that leaves their king in check. But another reason is that the pin itself is a useful weapon used to win chess games. That will be covered later in this manual.

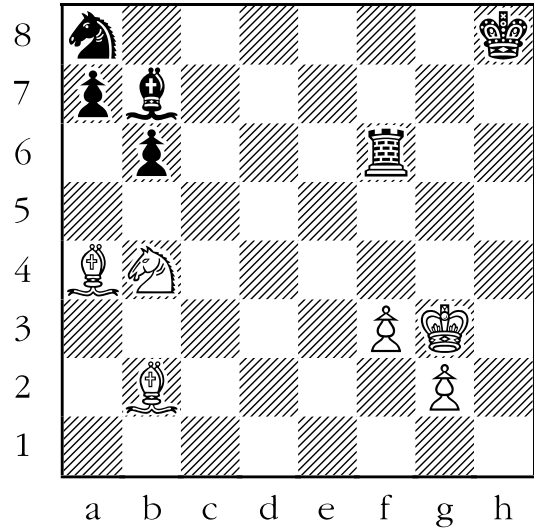


# Sheet 9-1: Pins

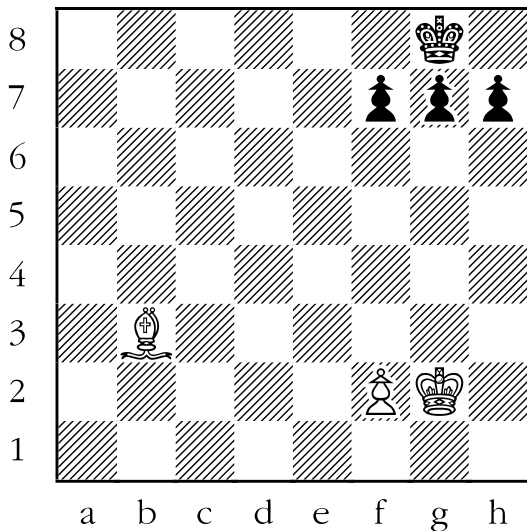
1. Which white piece is pinning? Which black piece is pinned? Circle each of them.



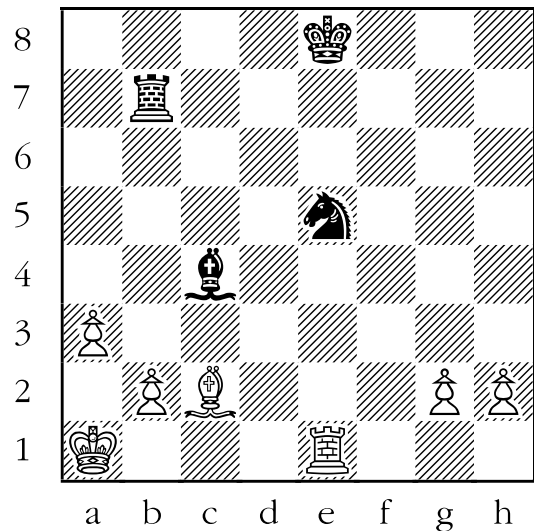
3. Which white piece is pinning? Which black piece is pinned? Circle each of them.



2. Which white piece is pinning? Which black piece is pinned? Circle each of them.

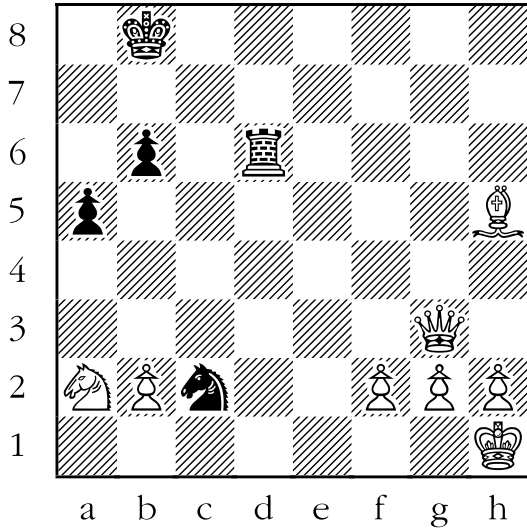


4. Which white piece is pinning? Which black piece is pinned? Circle each of them.

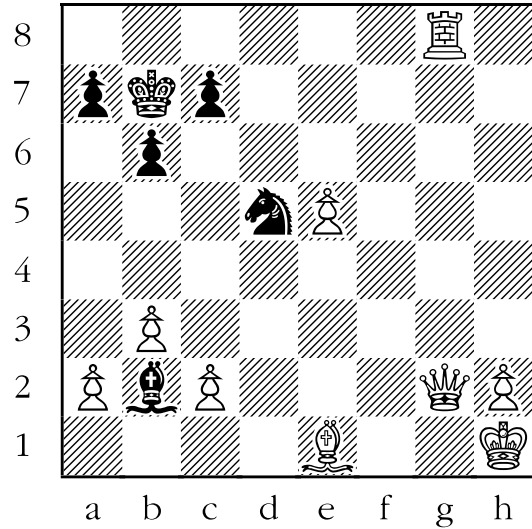


# Sheet 9-1: Pins

5. Which white piece is pinning? Which black piece is pinned? Circle each of them.



6. Which white piece is pinning? Which black piece is pinned? Circle each of them.

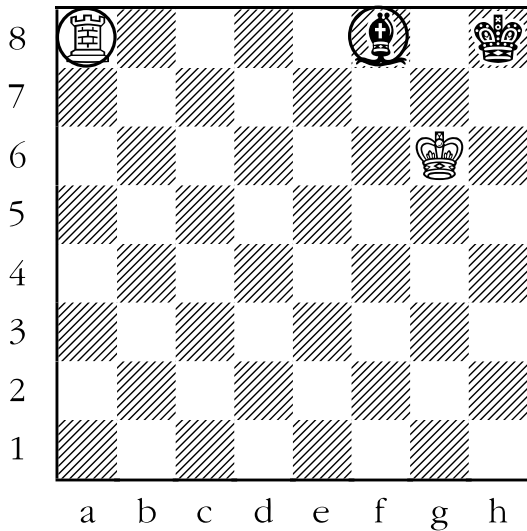


# Answer Sheet 9-1: Pins

1. Which white piece is pinning? Which black piece is pinned? Circle each of them.

**ANSWER:** The white rook is pinning, and the black bishop is pinned.

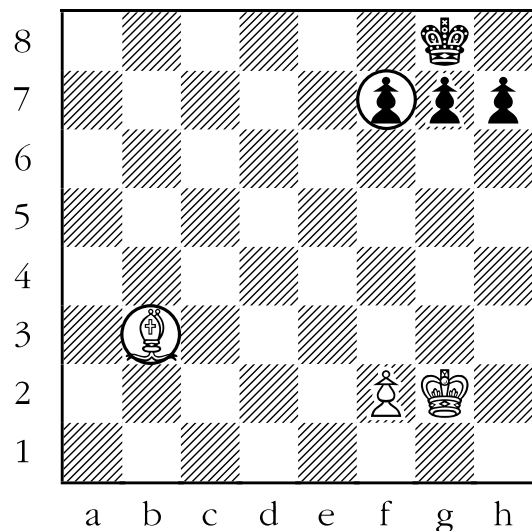
The white rook would be attacking the black king, except that the black bishop is in the way. For example, the black bishop is not allowed to move to g7, because that would place the black king in check, which is illegal (remember, it is not allowed for a player to play a move that leaves their king in check).



2. Which white piece is pinning? Which black piece is pinned? Circle each of them.

**ANSWER:** The white bishop is pinning, the black pawn on f7 is pinned.

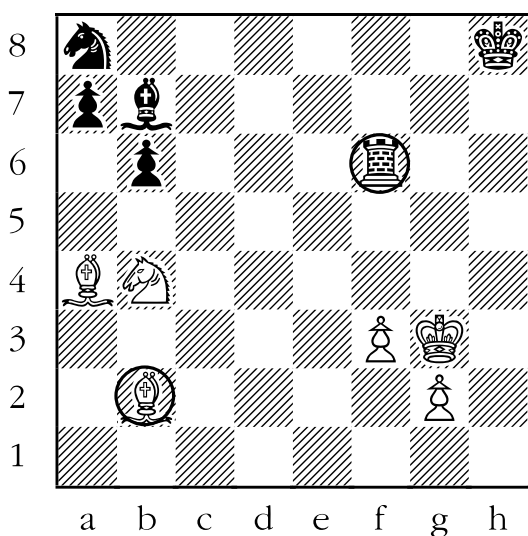
The white bishop would be attacking (“checking”) the black king except that the black pawn on f7 is in the way. In this case, if black wanted to move her pawn from f7 to f6, she could not. That is because it is illegal to play a move that places your own king in check. Another way to think about it is that if your king is in check after you play a move, you must retract your last move and play another one.



3. Which white piece is pinning? Which black piece is pinned? Circle each of them.

**ANSWER:** The white bishop on b2 is pinning; the black rook on f6 is pinned.

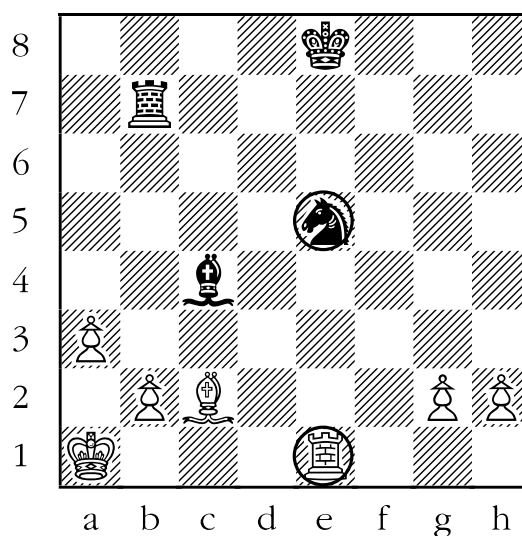
The white bishop on b2 would be attacking the black king, except that the black rook on f6 is in the way.



4. Which white piece is pinning? Which black piece is pinned? Circle each of them.

**ANSWER:** The white rook is pinning; the black knight is pinned.

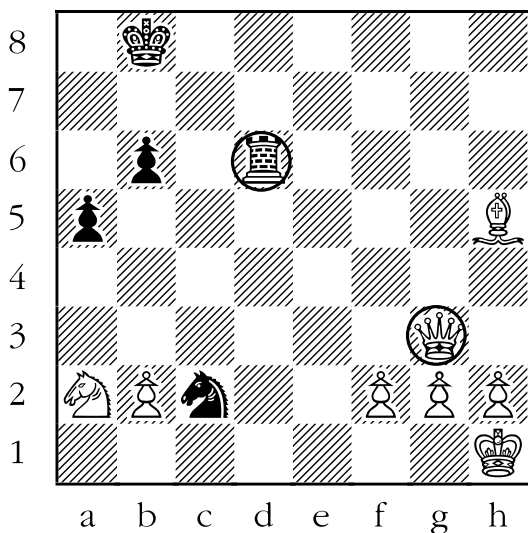
The white rook on e1 would be checking the black king, except that the black knight on e5 is in the way.



5. Which white piece is pinning? Which black piece is pinned? Circle each of them.

**ANSWER:** The queen is pinning; the rook is pinned.

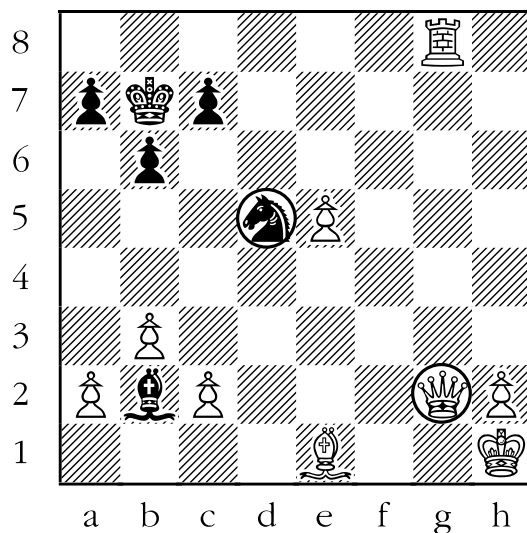
The white queen would be checking the black king but the black rook is in the way. It would be illegal for the rook to move in this position.



6. Which white piece is pinning? Which black piece is pinned? Circle each of them.

**ANSWER:** The white queen is pinning; the black knight is pinned.

If black moved the knight, it would be check, and is therefore illegal.



# Lesson 10

## Castling

### (Sheet 10-1, 10-2 & 10-3)

#### Objectives:

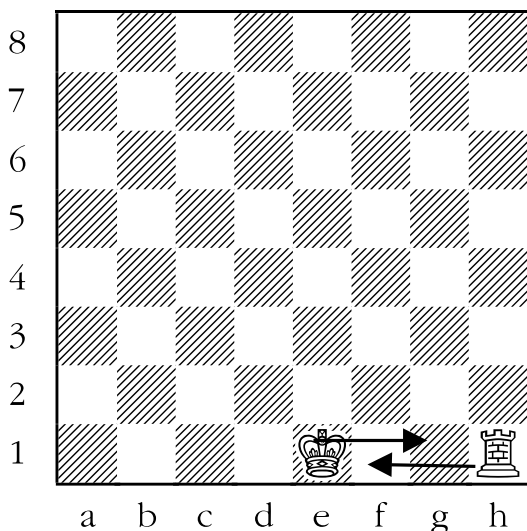
- Teach the mechanics of castling.
- Teach the rules of castling.
- Teach the logic behind castling.

#### Skills Developed:

- Better understanding of game strategies.

During a chess game, the players alternate making moves, one piece at a time. The only instance where a player gets to move two of her pieces in a row is when castling. In this case, the player moves the king and the rook during the same turn. We will cover the mechanics of castling, then the special circumstances where castling is possible, and finally, why it is a good idea to encourage your students to try and castle during almost every game.

As stated above, castling is performed with the rook and the king. Let's see the schematic diagram below for an example of "kingside" castling:

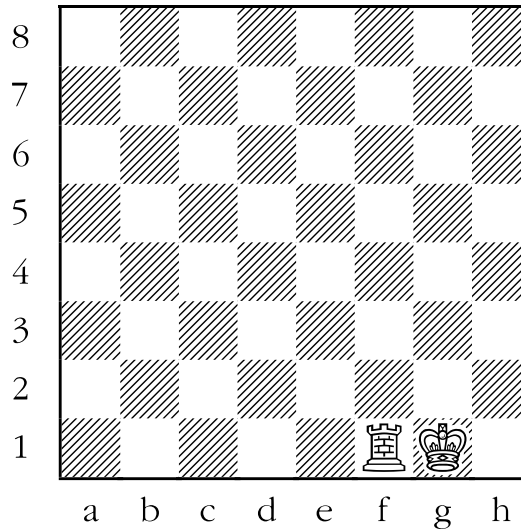


It is white's turn to move. The white king and the white rook are on their original squares. White can now castle. This is a two step operation.

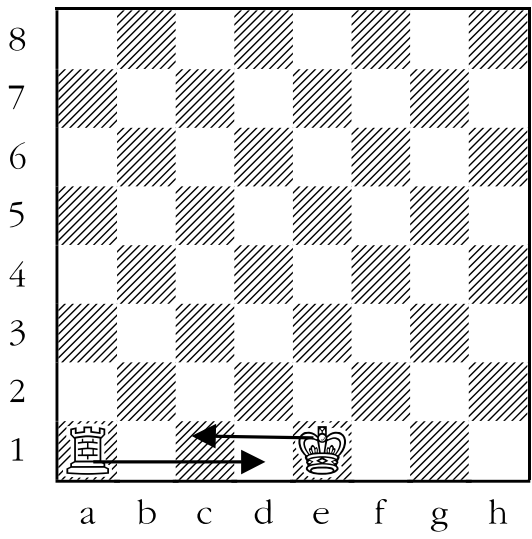
Step one is to move the king two squares towards the rook that will be used for castling. In this instance the white king would be moved from e1 to g1.

Step two is to leap the rook over the king and place it on the square beside the king.

In this instance the rook would be moved from h1 to f1, where it would sit beside the king. The final position would look like this:

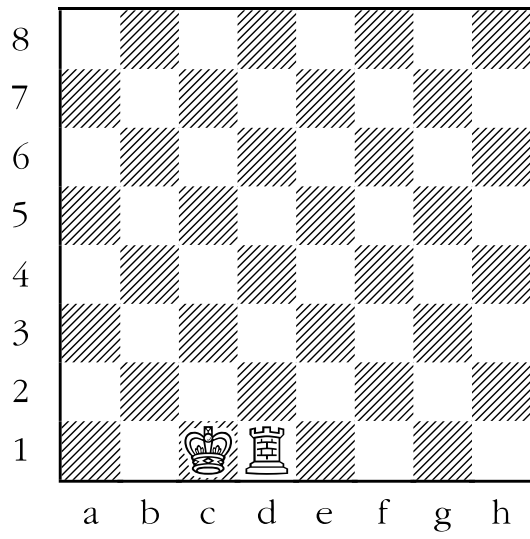


Castling in the other direction is very similar, though not exactly identical. Let's see an example of "queenside" castling. The starting position for legal queenside castling is shown below:



Notice that there are three spaces between the king and the rook in this instance, the extra square being the one that the queen originally starts from. This is why castling in this direction is called "queenside" (as opposed to "kingside") castling or "long" (as opposed to "short") castling. The extra square between the two pieces is what differentiates "short" and "long" castling.

In queenside castling, the king is still moved two squares. The rook is moved over the king and placed beside it. The final position of the pieces is shown below:



That is all there is to the actual mechanics of castling. In all instances, the king moves two squares towards the rook being used in castling. Then the rook jumps over the king, and is placed right beside the king. Knowing the above information is enough to allow students to solve the questions on Sheet 10-1.

*It is important for the students to get into the habit of moving their king before their rook when castling.* The reason behind this is to avoid confusion. If the player touches the rook first, and moves it, and then attempts to move the king, the opponent could argue that the player played a rook move and then effectively retracted that move and castled.

On the other hand, when the player moves his king first, it is understood that he must be intending to castle since that is the only instance in which a king moves two squares in one turn.

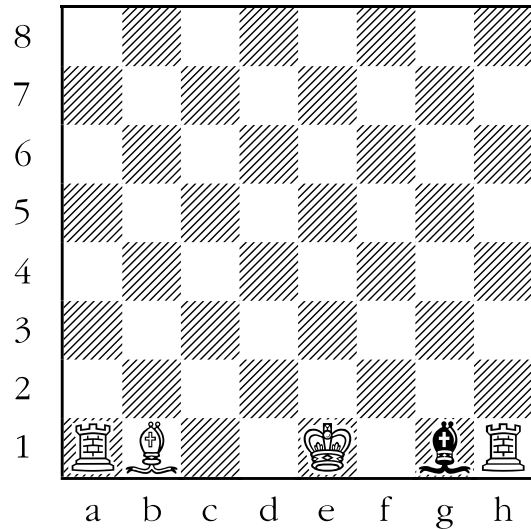
Now we turn to the requirements that are necessary for a player to castle legally.

### Legal Castling Occurs When:

1. Neither the king, nor the rook used in castling, has moved at all during the game. This includes instances where, for example, the king moves, then moves back to its original square. It would still be illegal for the player to castle.
2. No piece, either friendly or enemy, is between the king and the rook used in castling.
3. The player isn't responding to a check when castling. In other words, it is not legal to respond to a check by castling.
4. The king isn't passing over a square that would place it in check when castling.
5. The king isn't castling in to check.

Points 3, 4, and 5 can perhaps be more easily summed up with the idea that: *in order to castle the player can't be in check before, during, or after castling.* This is a great deal of information to retain, so let's see a few examples to explain the above points more clearly.

In the diagram below, can white castle legally in either direction ("long" or "short")?

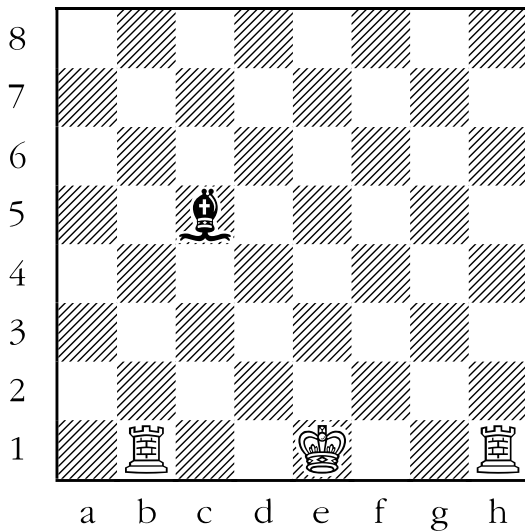


1. The white bishop on b1 is between the rook on a1 and the white king, so white can't castle queenside.
2. The black bishop on g1 is between the rook on h1 and the white king, so white can't castle kingside.

Both instances are covered by point 2.

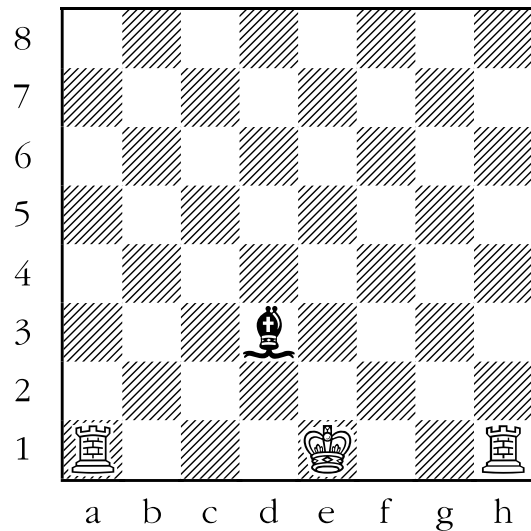
Another example:

Can white castle in the position below?



1. White can't castle "queenside" ("long") because the rook originally on a1 has moved to b1 at some point earlier in the game, and we know from point 1 that it is illegal to castle using a rook that has previously moved.
2. White can't castle "kingside" ("short") because the white king would be in check at the end of the move. The bishop on c5 is attacking the g1 square, the final resting place of the king. *Point 5 tells us that this is not allowed.*

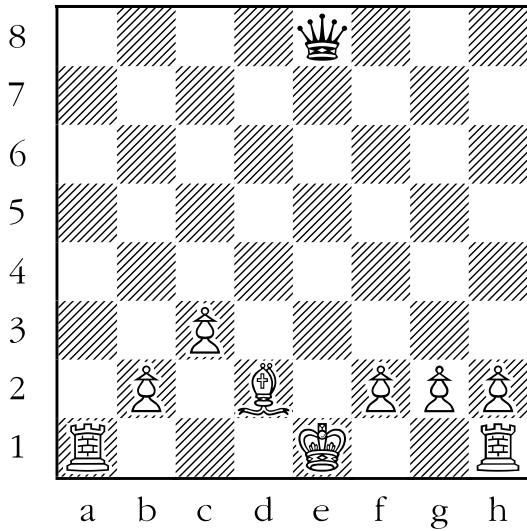
Continuing to the next diagram:  
Is white allowed to castle?



1. White is not allowed to castle kingside, since in moving his king from e1 to g1, it would have to pass through f1, which is attacked by the black bishop on d3. *We know that this is illegal from point 4.*
2. White is, however, allowed to castle queenside. Even though the black bishop attacks the b1 square, which the white rook on a1 would pass over when white castles queenside, *this does not violate any of the rules above.*

Below is one final example.

Is white allowed to castle in this position?



No. White is in check, and therefore can't castle (*see point 3*). White has two ways to get out of check:

- move his king (to d1 or f1)
- block the check by moving the bishop to e3.

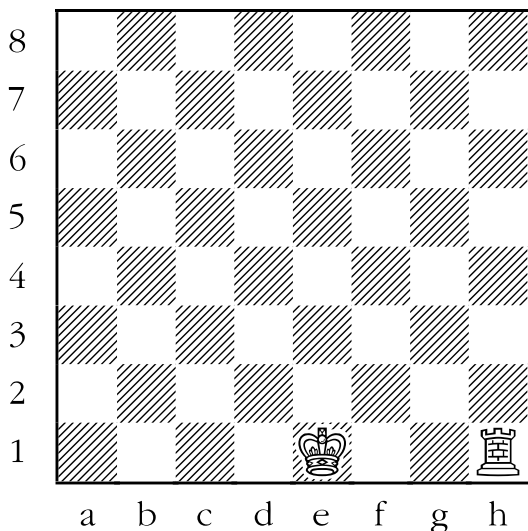
If white partakes of the first option, and moves his king to f1, for example, he has permanently forfeited the right to castle for the rest of the game. If he were to play his bishop to e3, he would still be allowed to castle at a later time (next move, for example) when all of the five requirements listed above are met.

This probably seems like a lot to remember for a move that will happen at most, once per player, per game. However, there are two reasons why castling is important:

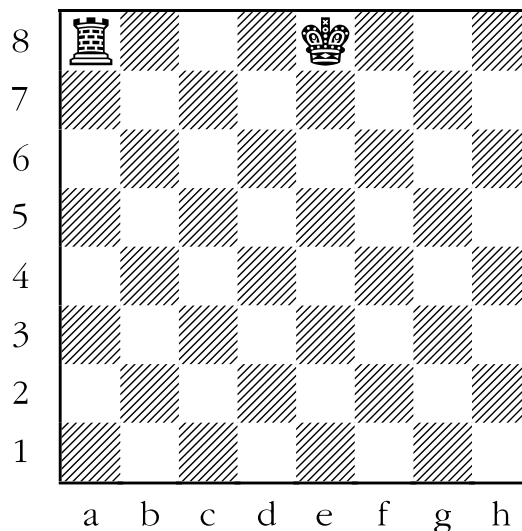
1. Castling is the most expedient way of removing the king from the danger zone in the middle of the board. Chess literature is filled with countless examples of hapless monarchs caught in the central crossfire of enemy pieces. It is a good idea for the king to find shelter when so many enemy pieces are on the board.
2. Castling allows the rooks to get into the game relatively quickly. A player can't hope to win many games without using all of her pieces effectively. Castling is one step to accomplishing this.

# Sheet 10-1: Castling I

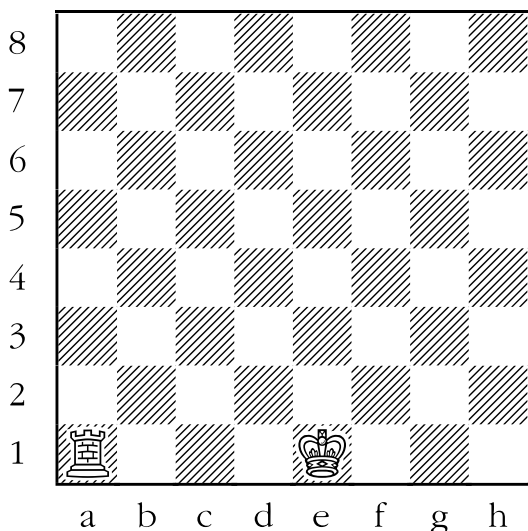
1. Draw arrows to show where the rook and king go if white castles.



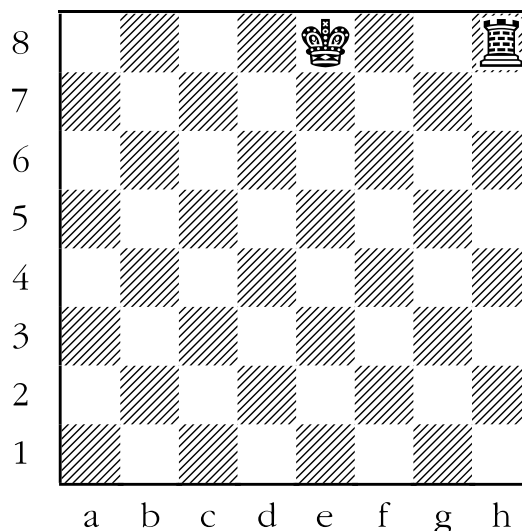
3. Draw arrows to show where the rook and king go if black castles.



2. Draw arrows to show where the rook and king go if white castles.



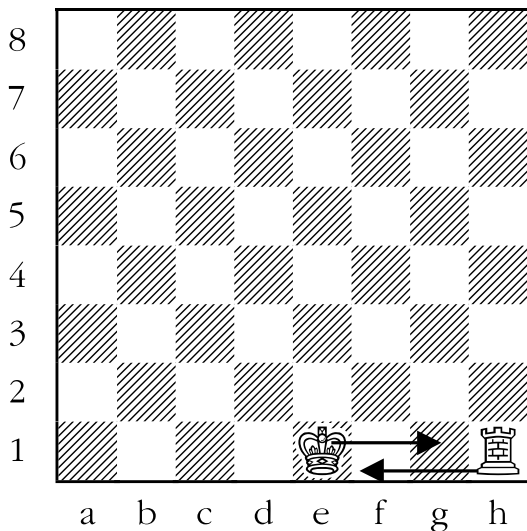
4. Draw arrows to show where the rook and king go if black castles.



# Answer Sheet 10-1: Castling I

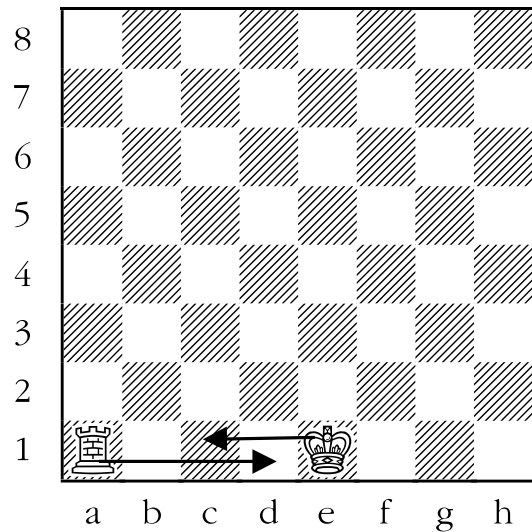
1. Draw arrows to show where the rook and king go if white castles.

**ANSWER:** White is going to castle kingside or “short” (the side of the board where the king starts the game). In order to castle, first move the king two squares towards the rook you are using to castle; in this case, the rook on h1. As a result, the king will end up on g1. Then leap the rook on h1 over the king and land it on the square next to the king. As a result, the rook will end up on f1.



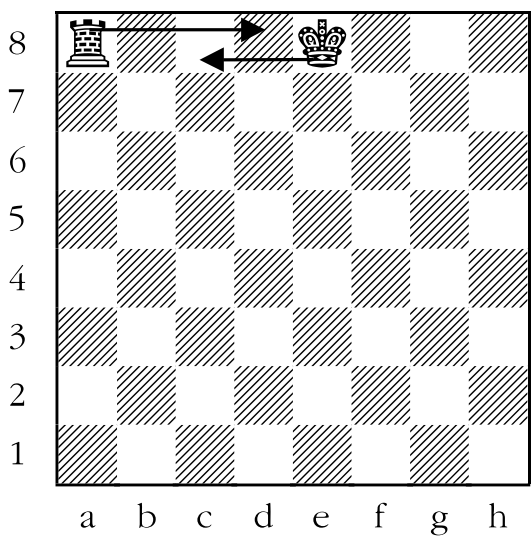
2. Draw arrows to show where the rook and king go if white castles.

**ANSWER:** This time white is going to castle queenside or “long” (the side of the board where the queen starts). Once again, the king moves two squares towards the rook, in this case from e1 to c1. Then the rook leaps over the king, and lands right next to it, going from a1 to d1.



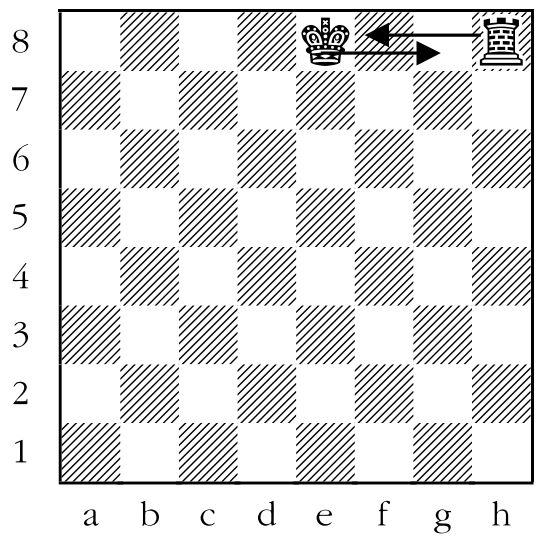
3. Draw arrows to show where the rook and king go if black castles.

**ANSWER:** Black castles in the same way that white does. In this instance, black is going to castle queenside, or “long”. First, move the black king two squares towards the black rook, from e8 to c8. Then move the black rook over the king, and place it right beside the king. The rook is now on d8.



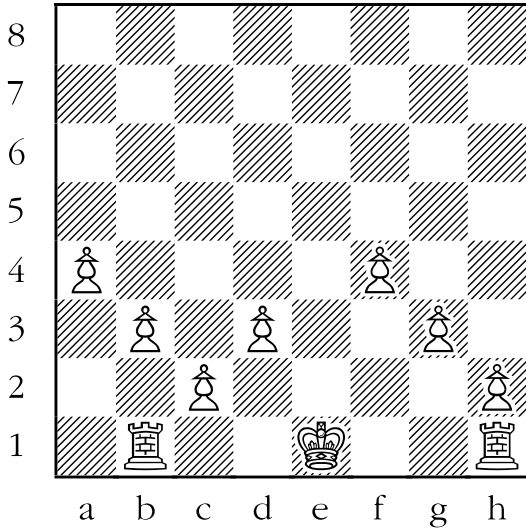
4. Draw arrows to show where the rook and king go if black castles.

**ANSWER:** Black is allowed to castle kingside, or “short”, here. First, move the black king from e8 to g8, then move the black rook from h8 to f8, leaping over the king in the process.

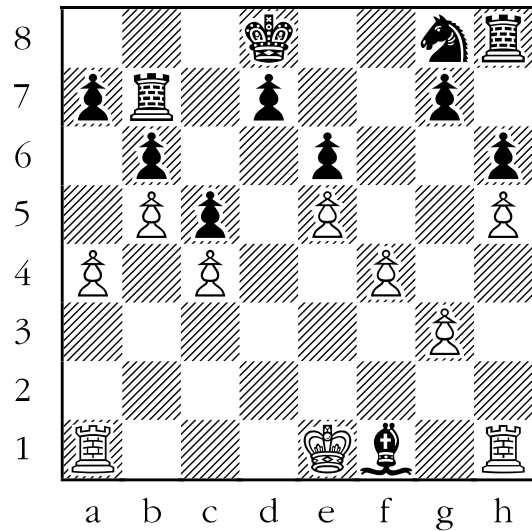


# Sheet 10-2: Castling II

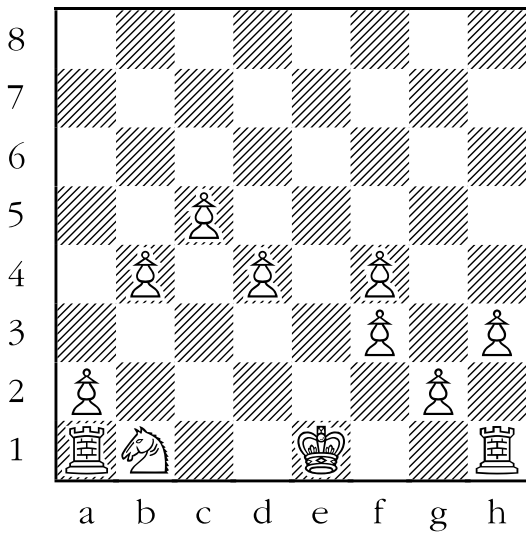
1. Can white castle here?  
If yes, show how.



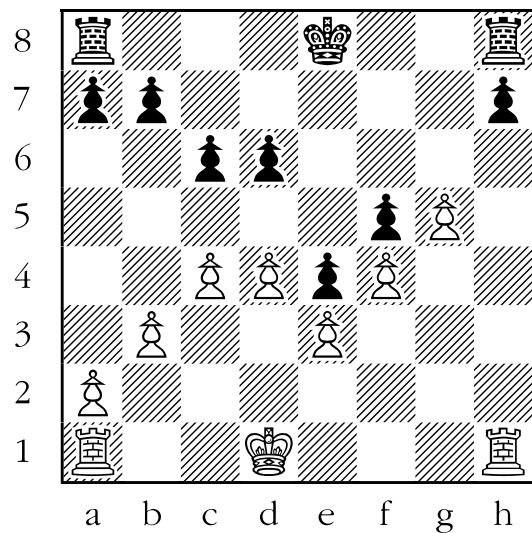
3. Can white castle here?  
If yes, show how.



2. Can white castle here?  
If yes, show how.



4. Can white castle here?  
If yes, show how.



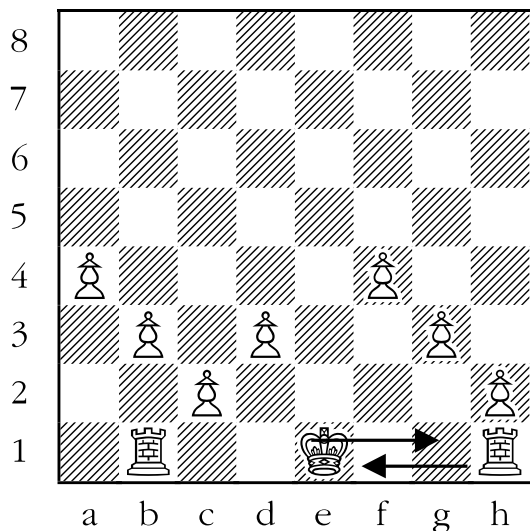
## Answer Sheet 10-2: Castling II

1. Can white castle here?

If yes, show how.

**ANSWER:** YES, KINGSIDE. The white king is still on its original square. Castling is only possible if the king is on its original square, and hasn't moved yet.

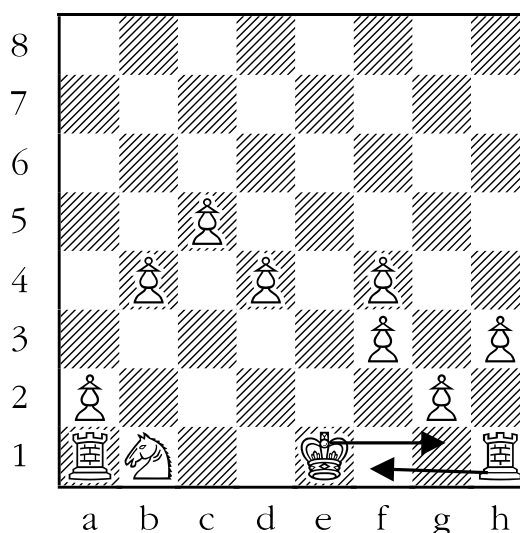
Next, take a look at the two white rooks. The one on h1 is still on its original square, but the one on b1 has moved at some point from its original square, a1. *Castling with a specific rook is only possible if that rook is on its original square, and hasn't moved yet.* This means that white can't castle using the b1 rook. So, only one type of castling is possible - kingside castling. White would move his king from e1 to g1, then leap the rook over the king, and land it on f1.



2. Can white castle here?

If yes, show how.

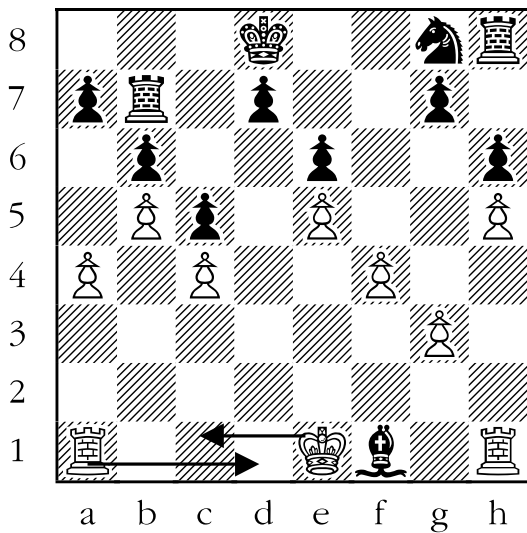
**ANSWER:** YES, KINGSIDE. The white king and the white rooks are on their original squares. White's knight on b1 is between the rook on a1 and the king on e1. We know that *castling is possible only if there is no piece (friendly or enemy) between the king and the rook.* Therefore white can't castle queenside. White can castle kingside, however.



3. Can white castle here?

If yes, show how.

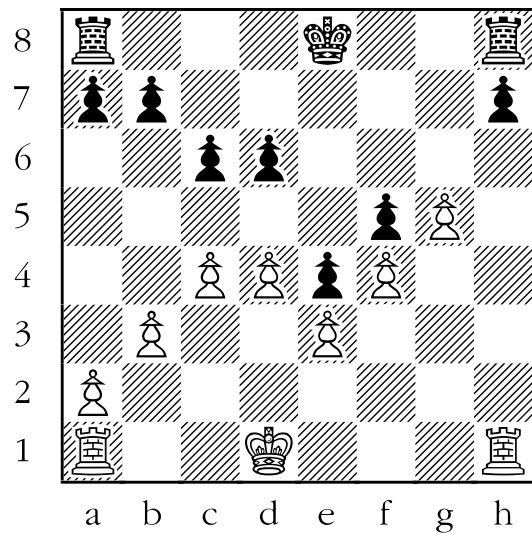
**ANSWER: YES, QUEENSIDE.** The white king and the white rooks are on their original squares. The black bishop is between the rook on h1 and the king on e1. We know that *it is illegal to castle when a piece (enemy or friendly) is between the king and the rook used to castle.* There is no rule disallowing white from castling queenside in this position.



4. Can white castle here?

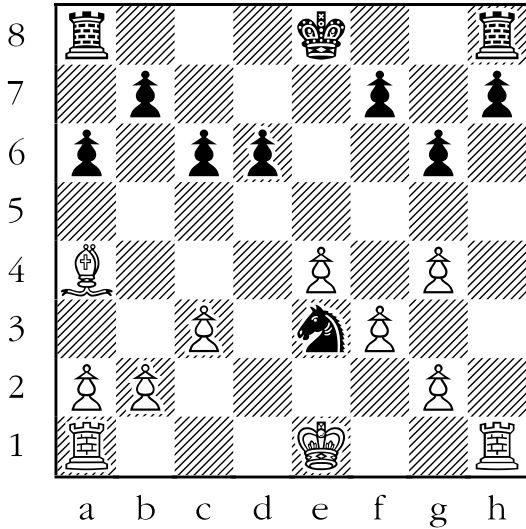
If yes, show how.

**ANSWER: NO.** White has moved his king at least once, as it now resides at d1, rather than its original home of e1. *It is illegal to castle when your king has moved from its original square* (even if it moves back to that square), so white can't castle at all.

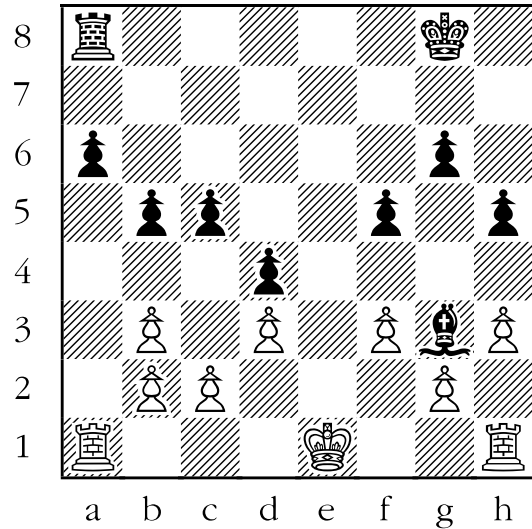


# Sheet 10-3: Castling III

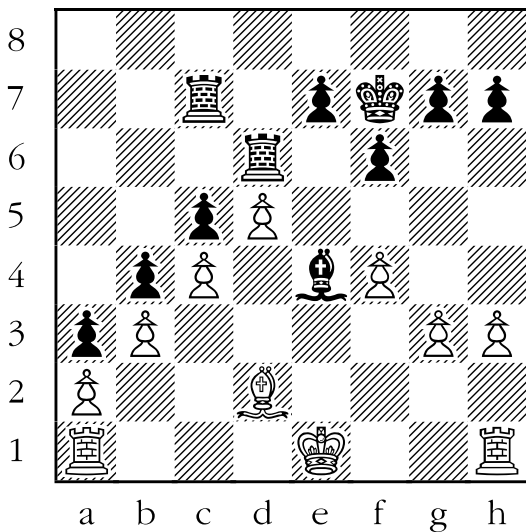
1. Can white castle here?  
If yes, show how.



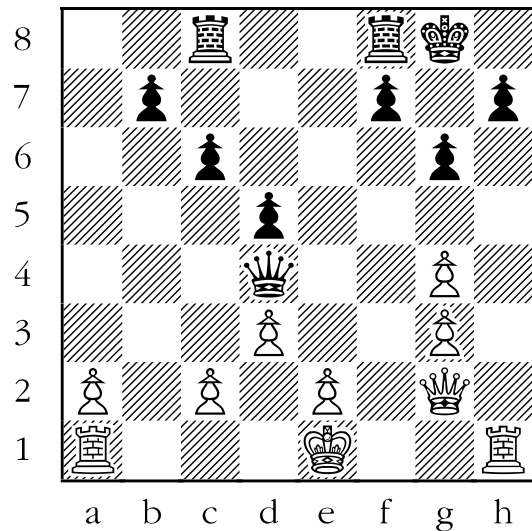
3. Can white castle here?  
If yes, show how.



2. Can white castle here?  
If yes, show how.



4. Can white castle here?  
If yes, show how.

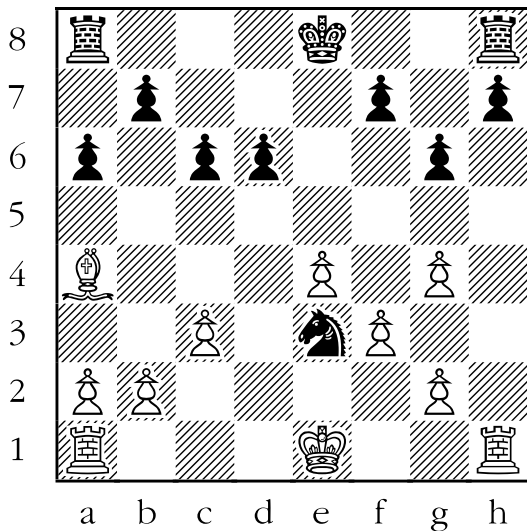


## Answer Sheet 10-3: Castling III

1. Can white castle here?

If yes, show how.

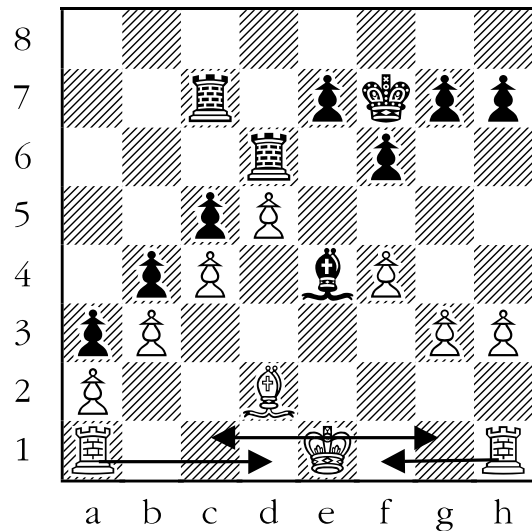
**ANSWER:** NO. The white king and the two white rooks are on their original squares, so the pre-conditions for legal castling on either wing is met. But in order for white to castle, the white king would have to pass over a square attacked by the black knight. In the case of kingside castling, that would be the f1 square; in the case of queenside castling, that would be the d1 square. This means that *it is illegal for white to castle either kingside or queenside at this time.*



2. Can white castle here?

If yes, show how.

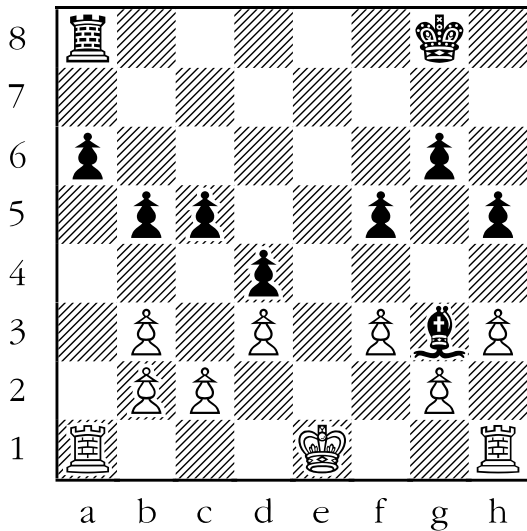
**ANSWER:** YES, EITHER SIDE. The white king is on its original square; so are the two white rooks. White is allowed to castle kingside even though the black bishop attacks his rook on h1 - there is no rule against that. White is also allowed to castle queenside even though the black bishop is attacking the b1 square, since the white king doesn't pass over that square.



3. Can white castle here?

If yes, show how.

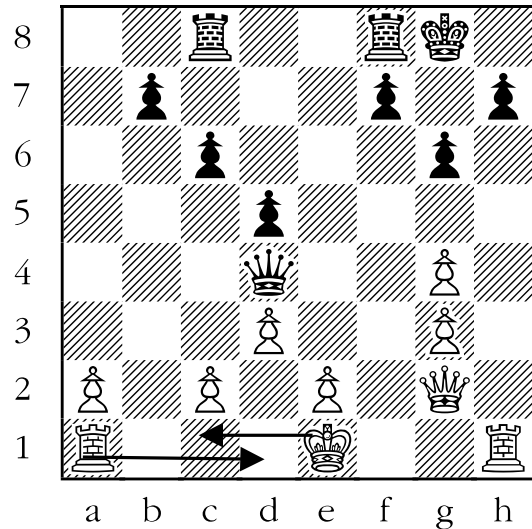
**ANSWER: NO.** White's king is in check. *It is illegal to castle in answer to check.* In this instance white must move his king to get out of check; once the king is moved white permanently forfeits his right to castle.



4. Can white castle here?

If yes, show how.

**ANSWER: YES, QUEENSIDE.** White's king and rooks are on their original squares. The black queen attacks the white rook on a1, but white is still allowed to castle queenside in this instance. *White is not allowed to castle kingside, however, as that would place the white king in check from the black queen when it moved to g1.*



# Lesson 11

## The Pawn: Checkmate and Promotion (Sheet 11-1)

**Objectives:**

- Teach students about pawn promotion.
- Teach students typical checkmating patterns with pawns.

**Skills Developed:**

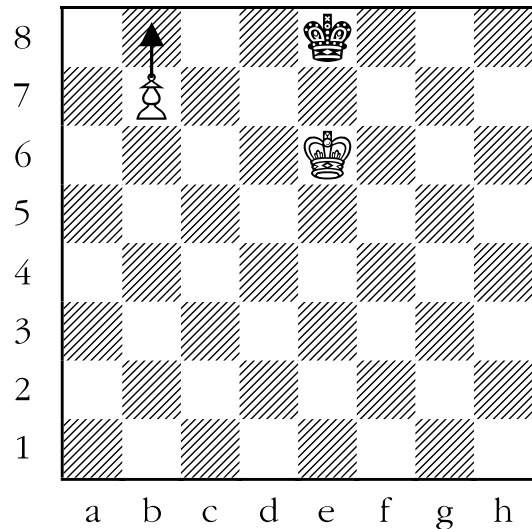
- Pattern recognition.

The pawn is the least valuable piece on the chessboard, as shown in the table of average piece values, below. The king has infinite (or zero) value in that a player can't lose his king. Its ability to do work is about equal to that of a bishop or knight.

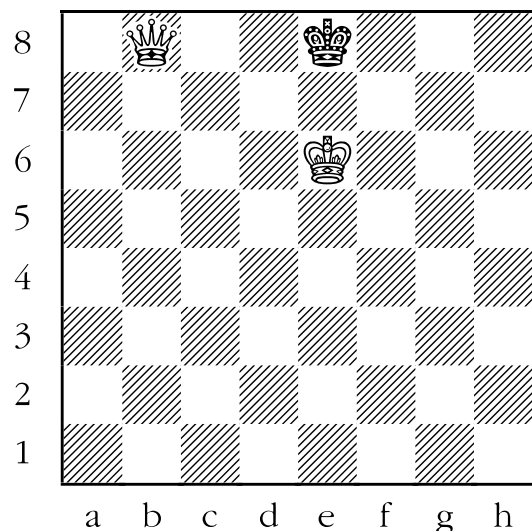
|               |            |
|---------------|------------|
| <b>Queen</b>  | = 9 points |
| <b>Rook</b>   | = 5 points |
| <b>Bishop</b> | = 3 points |
| <b>Knight</b> | = 3 points |
| <b>Pawn</b>   | = 1 point  |

Despite their limited value, pawns often have an influence on the final result. In the sheets that follow, the student will be exposed to typical mating patterns involving each of the pieces; on the first two sheets pawns will be the piece that actually delivers the “check” in the “checkmate”.

In the case of the pawn, its greatest strength is that it has the ability to promote to any other piece (other than a king), if it reaches the other end of the board. A few examples follow:

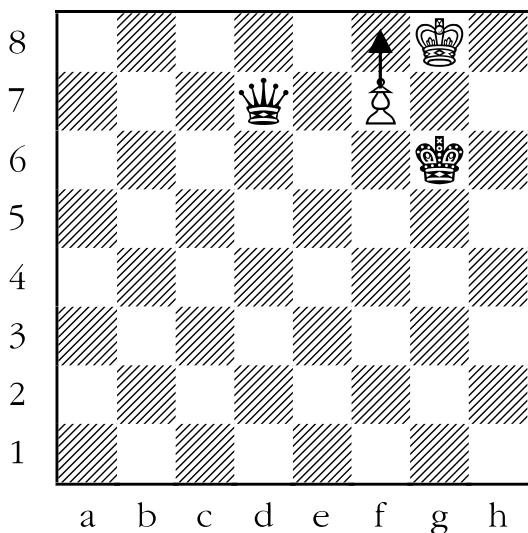


In the position above, the white player has a very small advantage. However, this is enough to win. The winning move is to play the pawn from b7 to b8, and promote to either a queen or a rook. *This is done by replacing the pawn on the promotion square with a piece of the player's choice (except for a second king, or leaving it as a pawn).* In this case, it would produce the following position:

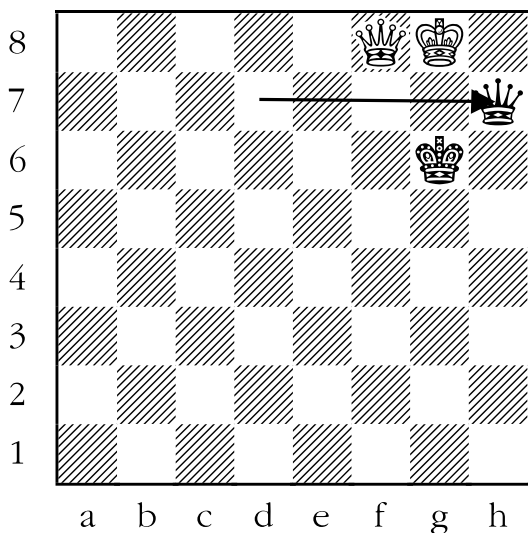


Black is checkmated, the white queen having replaced the pawn on the promotion square.

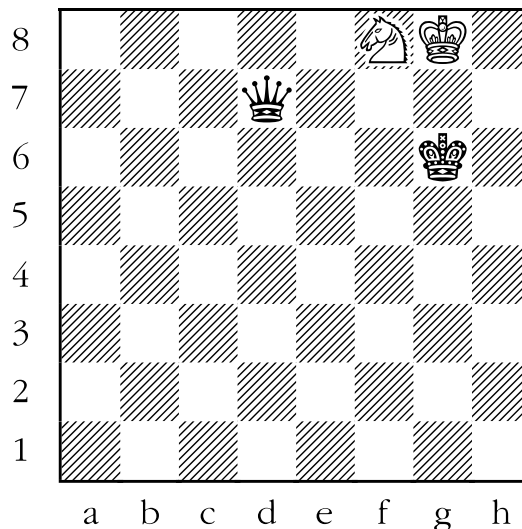
In greater than 95% of the cases, the correct piece for a player to promote his pawn to is the queen, but occasionally it is better to promote to something else. Here is a case of “under-promotion”:



White is down a significant amount of material (pawn vs. queen). If he tries to equalize the material by moving the pawn to f8 and making a new queen, black will respond by moving his queen to h7, checkmating white, as shown below:



Instead, white should “under-promote” to a knight, which would attack both the black queen and the black king simultaneously, as shown below:



After black moves his king to get out of check, white can take the black queen freely.

It should be noted that *it is possible to promote to a piece that you already have*. For example, even if you already have a queen, you can promote to another one - in theory a player could have nine queens! That would occur if the player held on to her original queen and then successfully promoted all eight pawns.

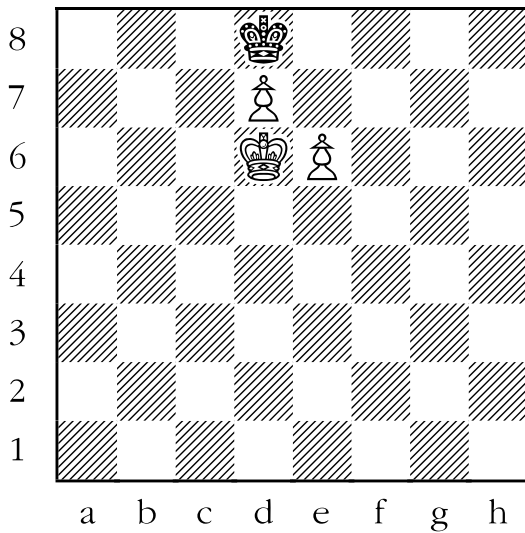
If someone makes a second queen, it is usual to either use a captured queen from another board, or use a captured rook and flip it over on its head.

And last, but not least, hopefully you will notice that the majority of checkmates in these examples occur *when the defending side’s king is on the edge of the board*. This is actually quite usual in chess games, since *limiting the king’s mobility in this way is a good technique for obtaining victory*.

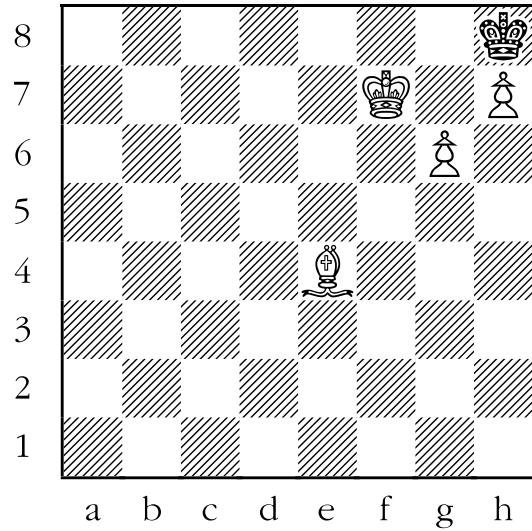
# Sheet 11-1: Checkmate with the Pawn

How does white checkmate black with a pawn in one move? For each of the following diagrams, draw an arrow to show how.

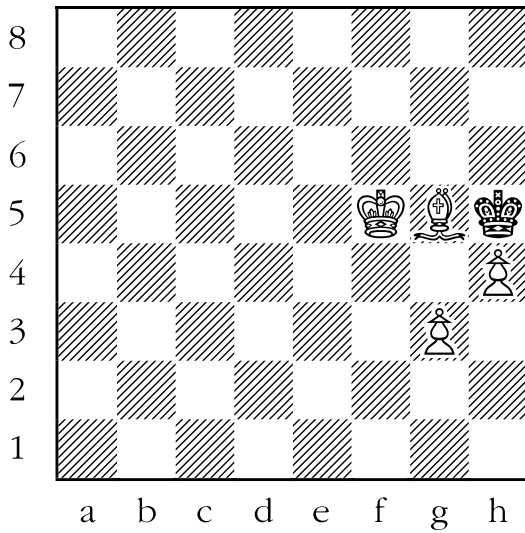
1.



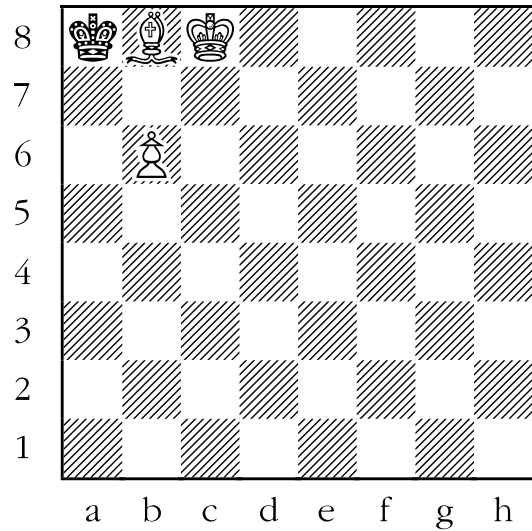
3.



2.

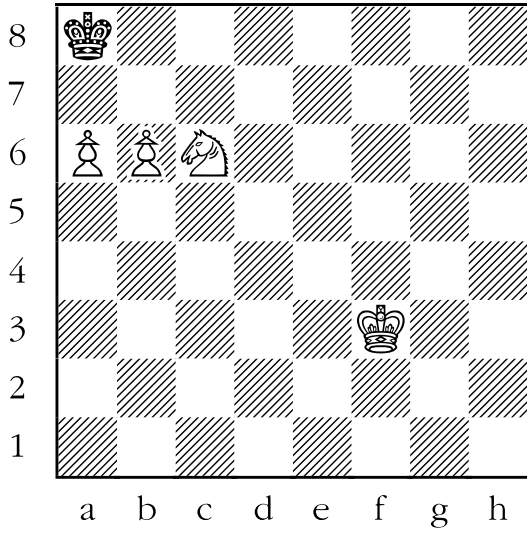


4.

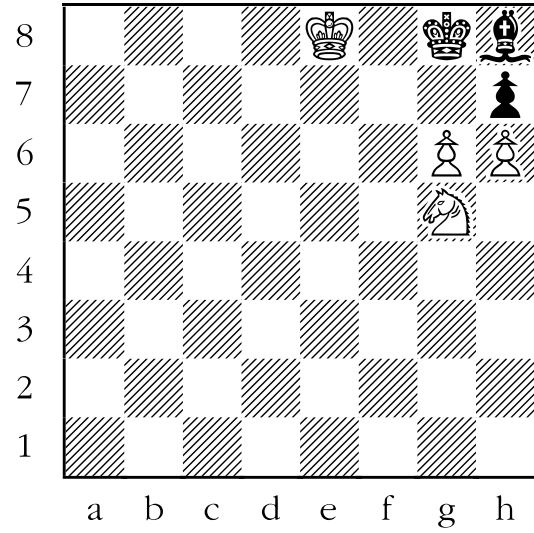


# Sheet 11-1: Checkmate with the Pawn

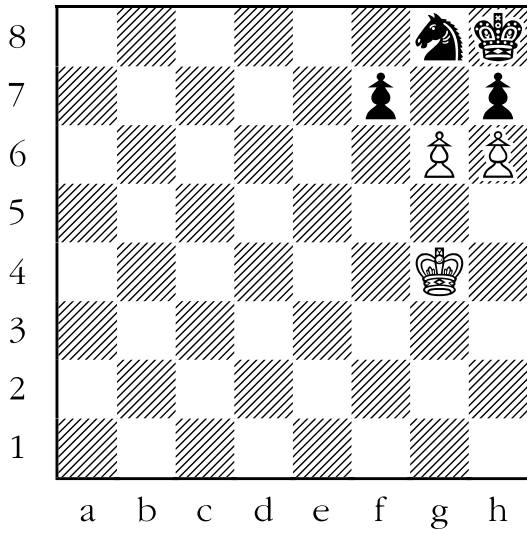
5.



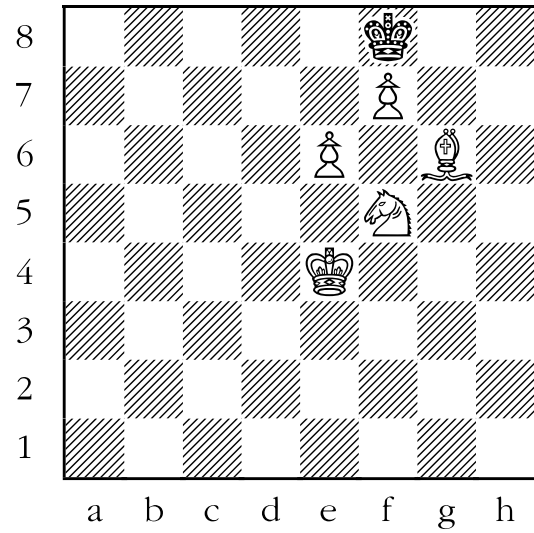
7.



6.

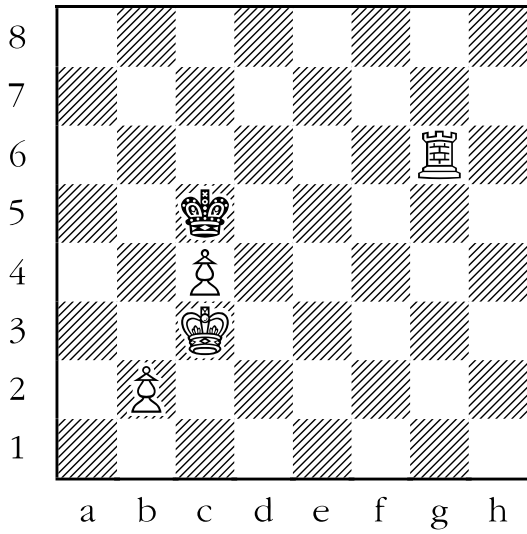


8.

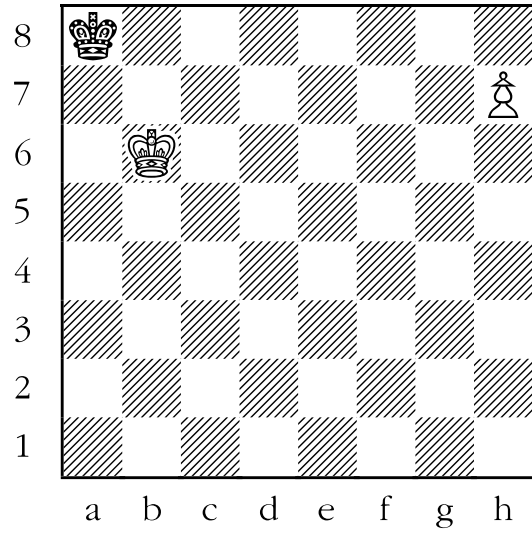


# Sheet 11-1: Checkmate with the Pawn

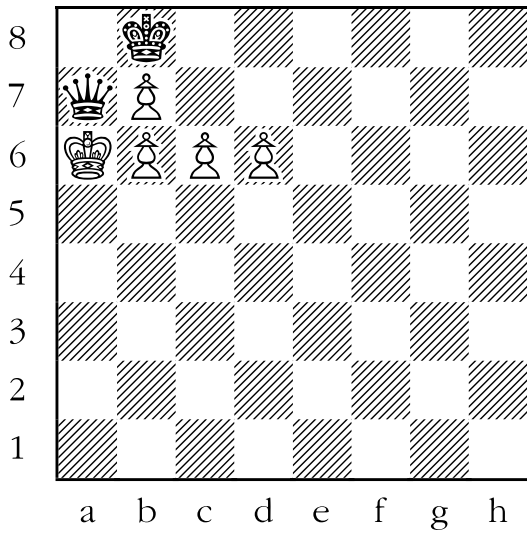
9.



11.



10.



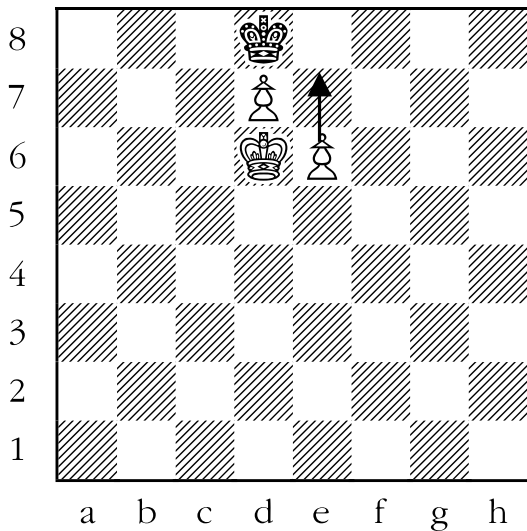
# Answer Sheet 11-1: Checkmate with the Pawn

How does white checkmate black with a pawn in one move? For each of the following diagrams, draw an arrow to show how.

**1. ANSWER:** Black's king is trapped on the edge of the board. If white plays his pawn from e6 to e7, black is in checkmate. The black king can't:

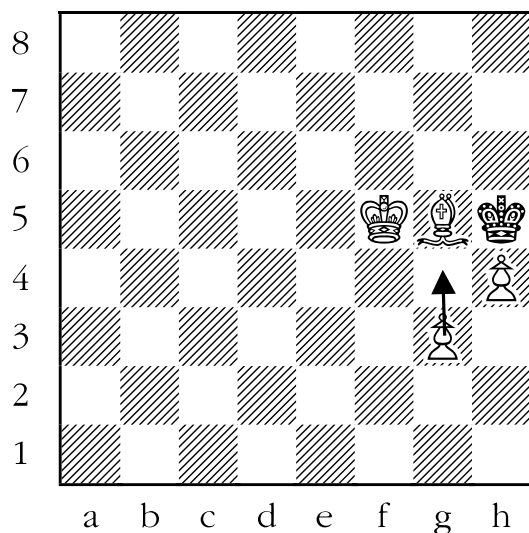
- take either of the pawns because the white king guards them.
- run to c8 or e8 because that would place it under attack ("in check") from the white pawn on d7.
- run to c7 since that would also place the black king under attack from the white king.

The answer is shown below:



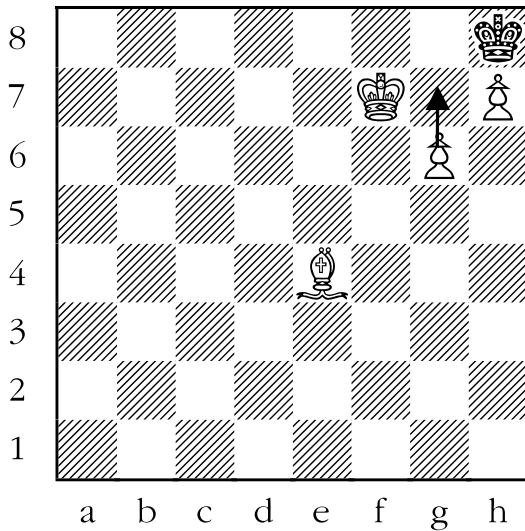
**2. ANSWER:** Once again the black king is trapped on the edge of the board. White checkmates black by moving his pawn from g3 to g4. The pawn is attacking the black king. The black king can't:

- take the pawn on g4 because the white king guards it.
- take the pawn on h4 because the white bishop guards it.
- take the white bishop because both the white king and the white pawn on h4 guard it.
- escape to h6 because the white bishop would be "checking" the black king there.
- escape to g6 because the black king would be under attack from the white king.



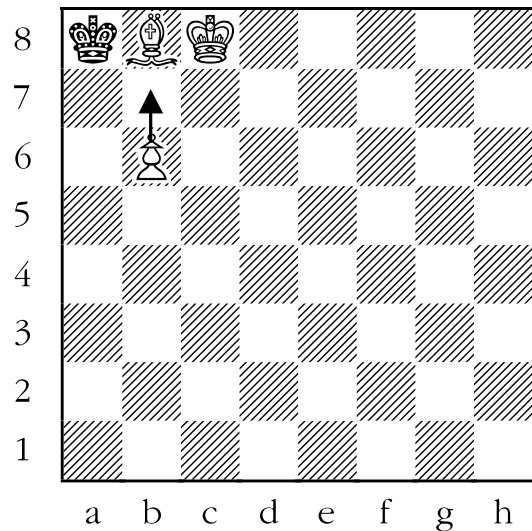
**3. ANSWER:** The black king is trapped in the corner. White can checkmate by moving the white pawn from g6 to g7. The king can't:

- take the pawn on g7 because the white king defends it.
- take the pawn on h7 because the white bishop defends it.
- escape to g8 because both the pawn on h7 and the white king are guarding that square.



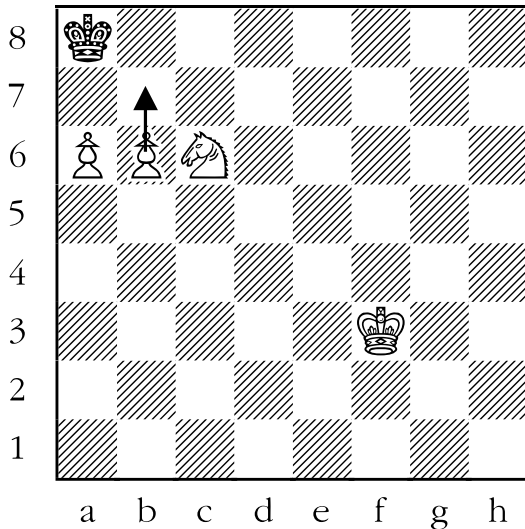
**4. ANSWER:** Again the black king is stuck in the corner of the board. If the white pawn moves from b6 to b7 black would be checkmated. The black king can't:

- take the pawn because the white king guards it.
- can't take the bishop because the white king is guarding it.
- escape to a7 as the bishop is guarding that square.



**5. ANSWER:** The black king is stuck in the corner. The white pawn on b6 can move to b7, which would checkmate the black king. The king can't:

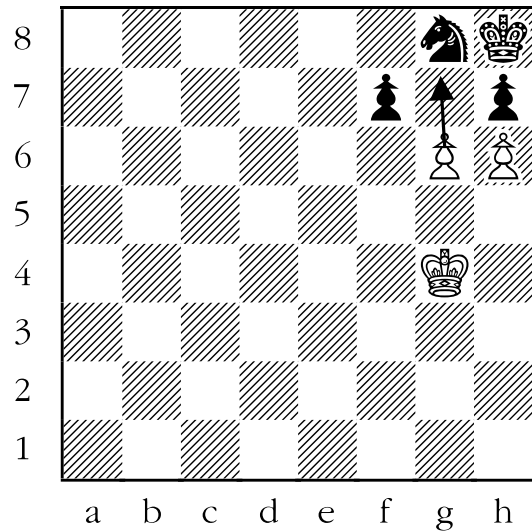
- take the pawn because the pawn on a6 guards it.
- run to a7 or b8 because the white knight guards those squares.



**6. ANSWER:** The white pawn can checkmate the black king with the move g6 to g7. The black knight and the two black pawns can't take the pawn. The black king can't:

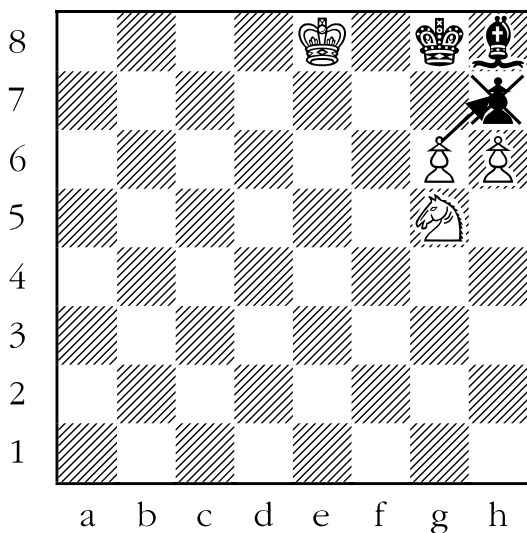
- take the pawn because the pawn on h6 guards it.
- run to h7 or g8 because a black pawn and a black knight occupy those squares, respectively.

This is an example of “smothered mate”. Smothered mate occurs when the king is checkmated only because its flight squares are occupied by friendly pieces. We will be seeing more smothered mates in the section devoted to checkmates with the knight, found later in this manual.



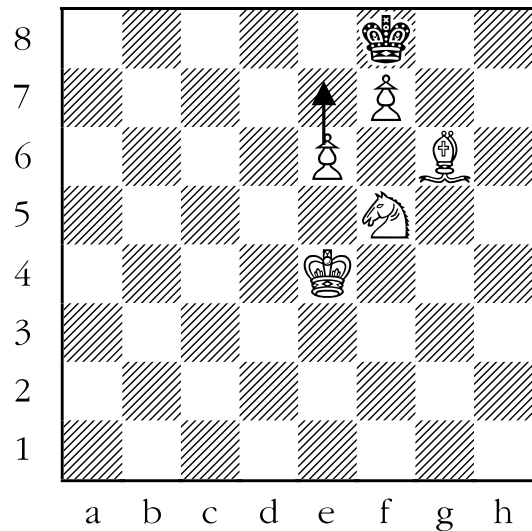
**7. ANSWER:** The white pawn on g6 can take the black pawn on h7, which would put the black king in checkmate. The black king can't:

- take the pawn because the white knight is guarding it.
- run to g7 because the white pawn on h6 is guarding that square.
- run to f8 because the white king is guarding that square.
- run to f7 because both the white king and knight guard that square.



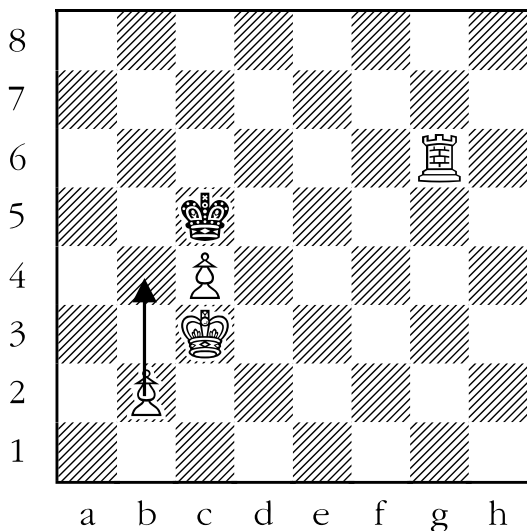
**8. ANSWER:** The white pawn on e6 can checkmate black by moving to e7. The king can't:

- take the pawn on e7 because the white knight guards it.
- take the pawn on f7 because the white bishop guards it.
- flee to g8 or e8 because those squares are guarded by the white pawn on f7.
- flee to g7 because that square is guarded by the white knight.



**9. ANSWER:** The white pawn on b2 can checkmate the black king by moving forward two squares to b4. *Remember, if the pawn is on its original square it may move forward two squares.* The black king can't:

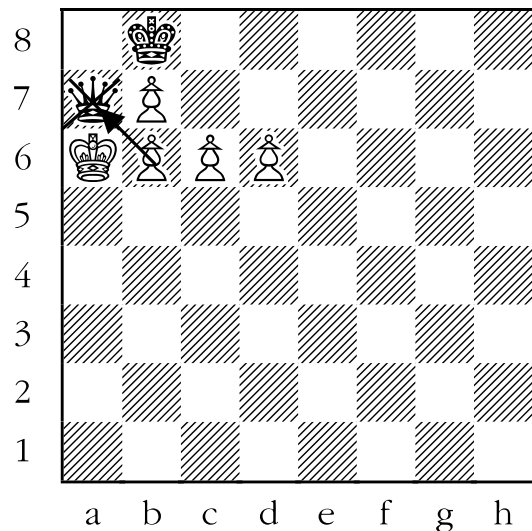
- take either of the white pawns because the white king protects them.
- flee to b5 or d5 because those squares are guarded by the white pawn on c4.
- move to d4 because the white king guards that square.
- retreat back to any of b6, c6, or d6 (black's "third rank") because those squares are covered by the white rook.



**10. ANSWER:** White can checkmate black by taking the black queen with the pawn on b6. The black king can't:

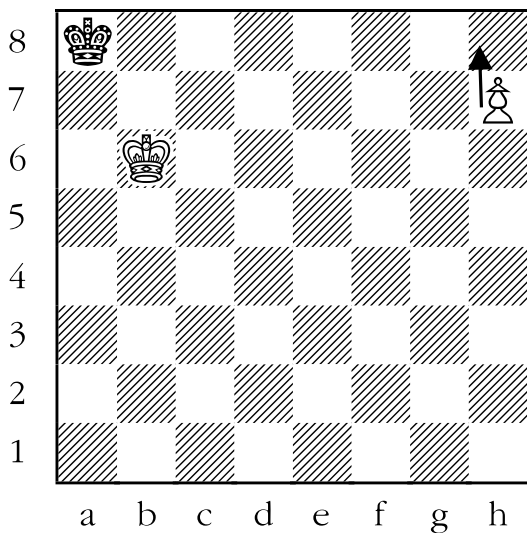
- take the white pawn on a7 because the white king guards it.
- run to either a8 or c8 because the white pawn on b7 guards those squares.
- run to c7 because that square is guarded by the white pawn on d6.
- take the white pawn on b7 because the white king and pawn on c6 guard those squares.

It may look like white also checkmates black in the diagram by playing his pawn from c6 to c7. This is illegal. The white king is in check from the black queen, and so white must get out of check - in this case one of the two legal possibilities (the other is to move the white king to b5) is answering check with checkmate.



**11. ANSWER:** This is a difficult one for the students to answer if they weren't listening to the lessons and descriptions about *pawns promoting*. In this case, the white pawn on h7 can move to h8 and become any piece that the white player wants (except for a king or remaining a pawn). In this case, if white chooses a queen or rook, black is checkmated. The black king wouldn't be able to move to:

- b7 or a7 as the white king covers those squares.
- move to b8 as the white queen (or rook) on h8 attacks that square.



# Lesson 12

## Checkmate with the Bishop

### (Sheet 12-1)

#### Objective:

- Teach students typical checkmating patterns with bishops.

#### Skills Developed:

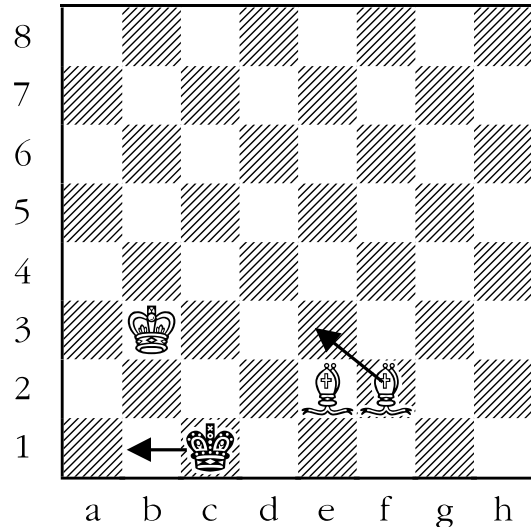
- Increased pattern recognition.
- Ability to analyze actions and consequences.

When trying to decide whether you can checkmate your opponent with your bishop, keep in mind that bishops can only deliver checkmate if the king is on the same colour square as the one that the bishop travels on. In other words, if your opponent's king is on a light square, for example, only the bishop that travels on light squares (also known as the "light-squared bishop") can deliver checkmate.

Most of the time, the bishop requires much assistance from other pieces to deliver checkmate. This is only natural since these other pieces are necessary to cover all of the squares of the colour opposite to that of the bishop.

The easiest place to deliver checkmate is the corner, where the king has only three escape squares. It will probably come as no surprise that two bishops work well together, since there is no duplication with respect to control of squares.

Below is a typical example of the power of two bishops:



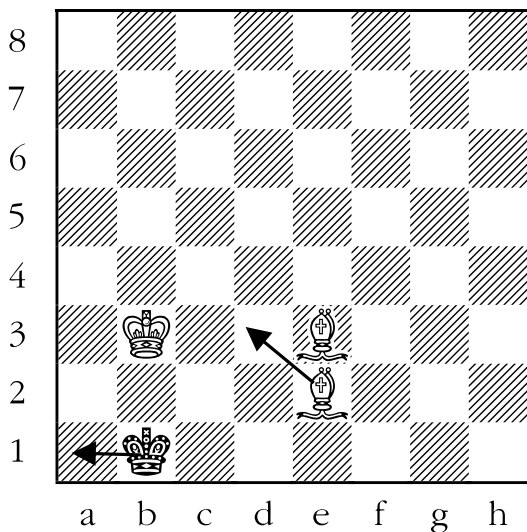
The black king is pinned to the edge of the board. All that is required is to force the king into the corner, where he has the fewest escape squares, and thus can be most easily checkmated.

White begins by moving his bishop from f2 to e3, checking the black king. The king can't move to:

- d1 because the other white bishop (the light-squared one) is covering that square.
- d2 because the dark-squared bishop attacks that square.
- either b2 or c2 as the white king on b3 attacks those squares.

That leaves only b1 for the king to go to.

That would produce the following position:

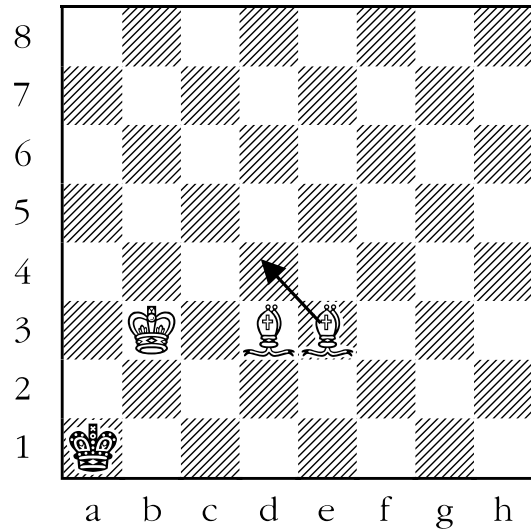


Now it's the other white bishop's turn to get into the act. White checks black's king again, by moving his bishop to d3. In response, the king can't move to:

- c1 because the dark-squared bishop is attacking that square.
- a2 or b2 because the white king is attacking those squares.
- c2 because both the light-squared bishop and the white king are covering that square.

That leaves only a1 for the king to go to.

This would leave us in this position:



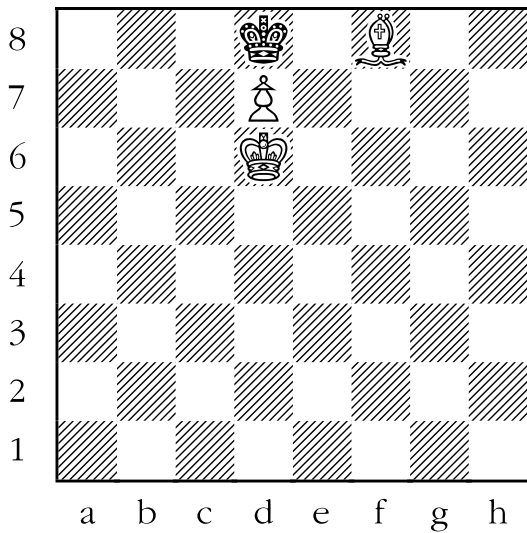
Now all that's left to do is deliver the fatal blow. We now turn back to the dark-squared bishop. If that bishop moves from e3 to d4, black is once again in check, but no longer has anywhere to go. Checkmate!

Notice that white was checking the black king with a purpose. Randomly checking the king around the board rarely accomplishes anything. Checking the king in order to drive it to the corner, is a very common and successful motif in chess. Show the above example to the students, letting them figure out what white's next move will be in each instance.

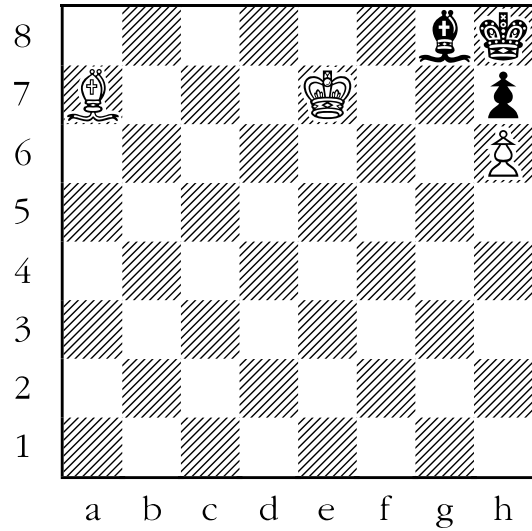
# Sheet 12-1: Checkmate with the Bishop

How does white checkmate black with a bishop in one move? For each of the following diagrams, draw an arrow to show how.

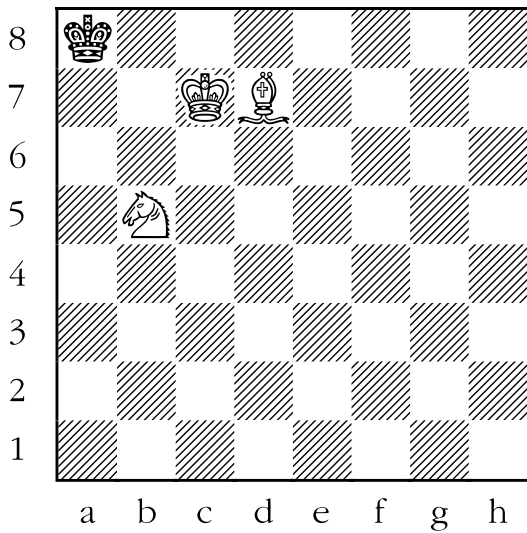
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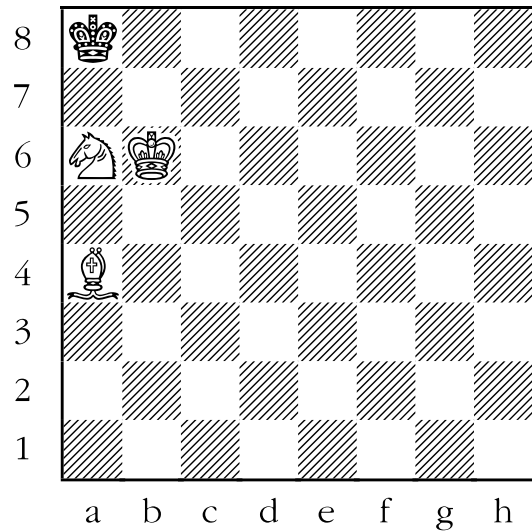
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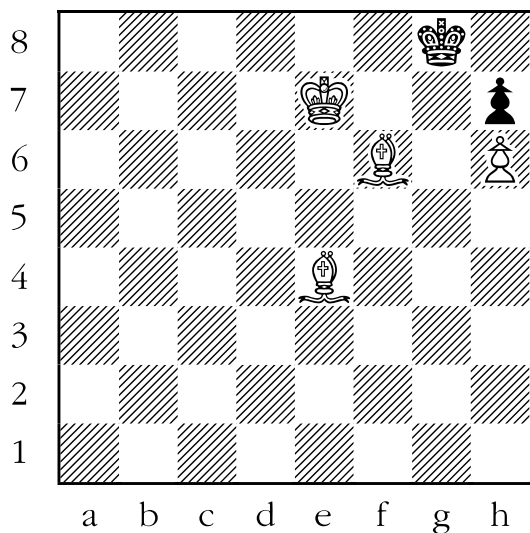


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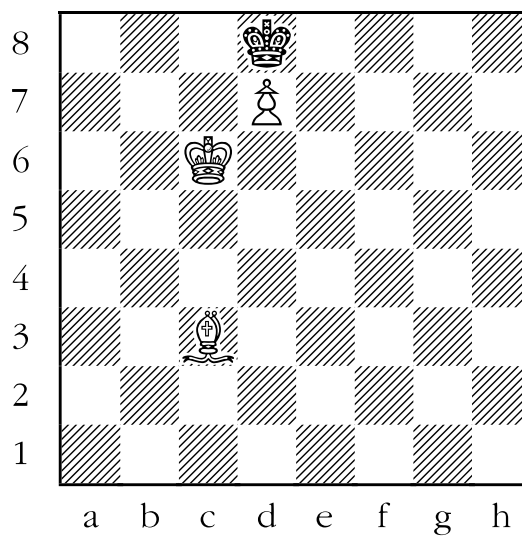


# Sheet 12-1: Checkmate with the Bishop

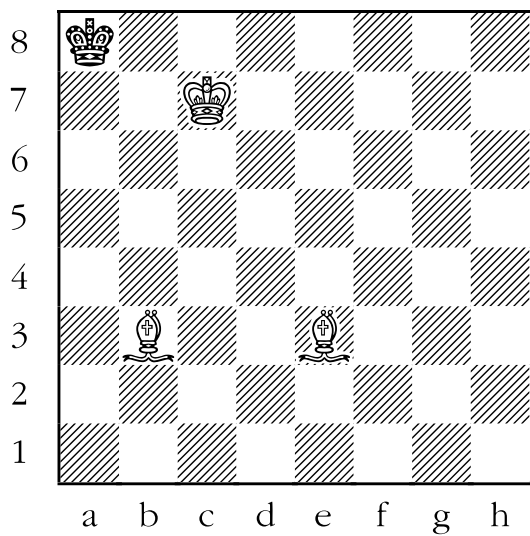
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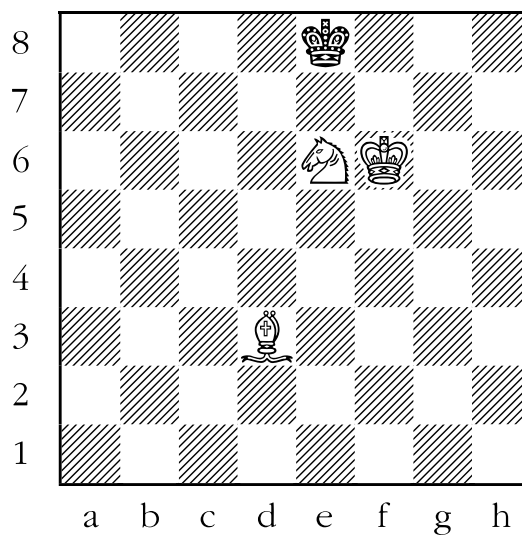
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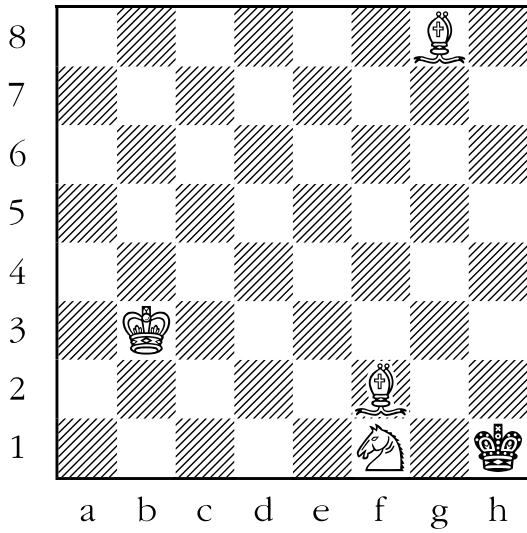


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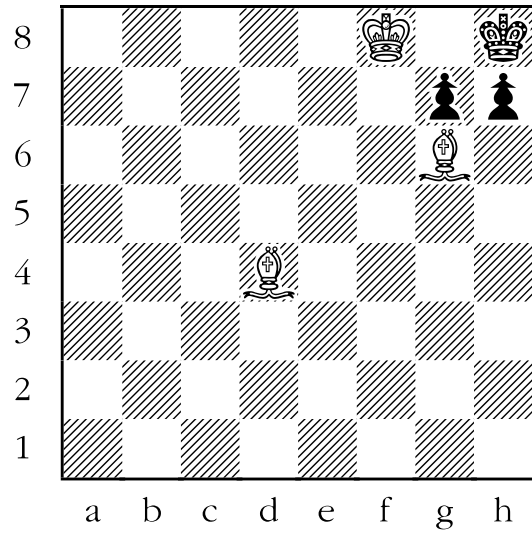


# Sheet 12-1: Checkmate with the Bishop

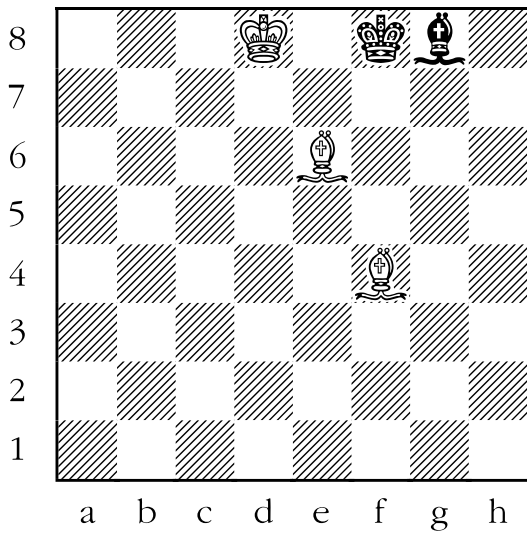
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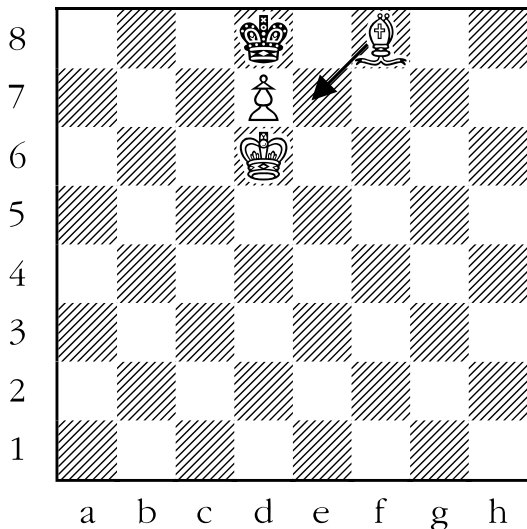


## Answer Sheet 12-1: Checkmate with the Bishop

How does white checkmate black with a bishop in one move? For each of the following diagrams, draw an arrow to show how.

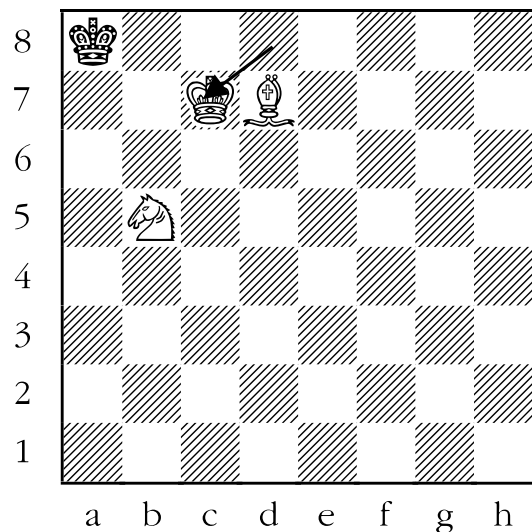
**1. ANSWER:** The bishop checkmates the black king by moving to e7. The king can't:

- take the bishop because the white king is guarding it.
- take the white pawn because the white king is guarding it also.
- flee to c8 or e8 because it would be "in check" from the white pawn.
- run to c7 since the white king guards that square.



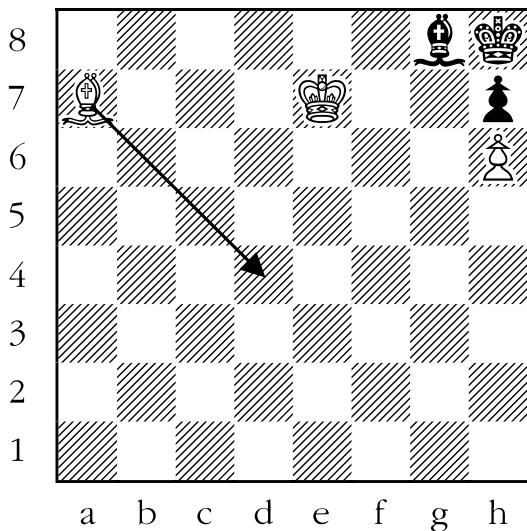
**2. ANSWER:** The bishop checkmated the black king by moving to c6. The black king can't move to:

- b8 - the white king guards that square.
- a7 - the white knight guards that square.
- b7 - both the white king and bishop guard that square.



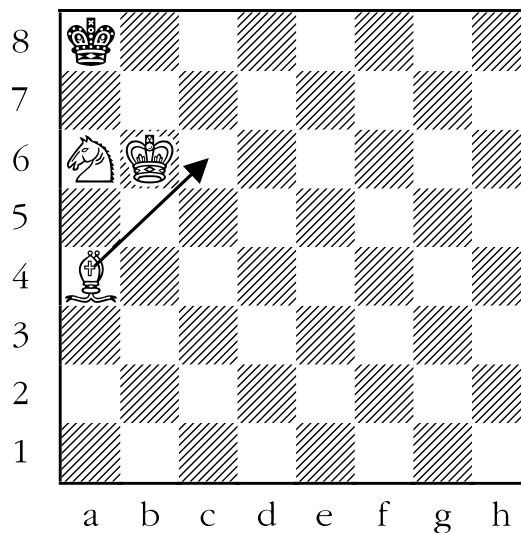
**3. ANSWER:** The white bishop can checkmate the black king by moving to d4. No black piece can take the bishop. The king can't run to:

- h7 or g8 - those squares are occupied by black pieces.
- g7 - the white bishop and pawn both guard that square.



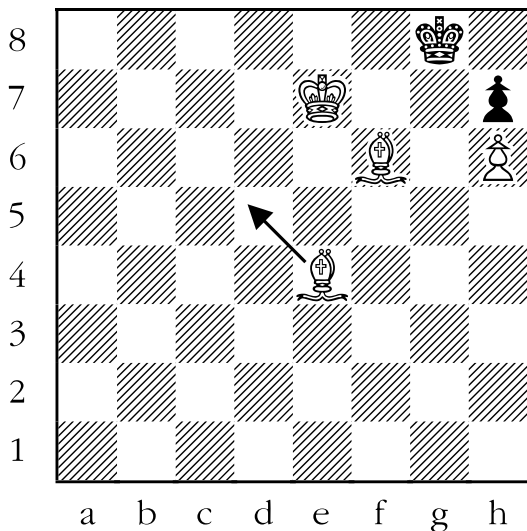
**4. ANSWER:** The winning move is to play the bishop to c6. The king can't go to:

- a7 - the white king is guarding that square.
- b8 - the knight is guarding that square.
- b7 - both the white king and bishop are guarding that square.



**5. ANSWER:** Which white bishop will be delivering checkmate? The black king is on a light square, so it must be the light-squared bishop. The bishop has two ways to attack (“check”) the black king:

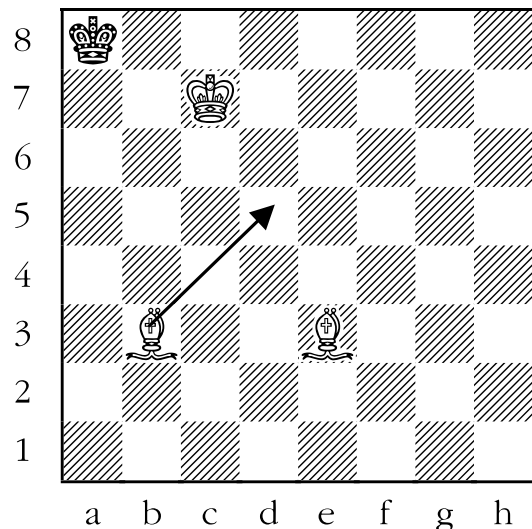
- 1) take the black pawn. However, black can capture that bishop with his king if white plays there. That move is check, but not checkmate.
- 2) move to d5, also placing the black king in check. In this case, the black king can't capture the checking piece, run to another square, or block the check. Checkmate!



**6. ANSWER:** Once again the first question is which bishop will be the one to checkmate the black king? The black king is on a light square, so the light-squared bishop must be the one that will deliver the checkmate.

The winning move is to play the bishop to d5. The black king can't run to:

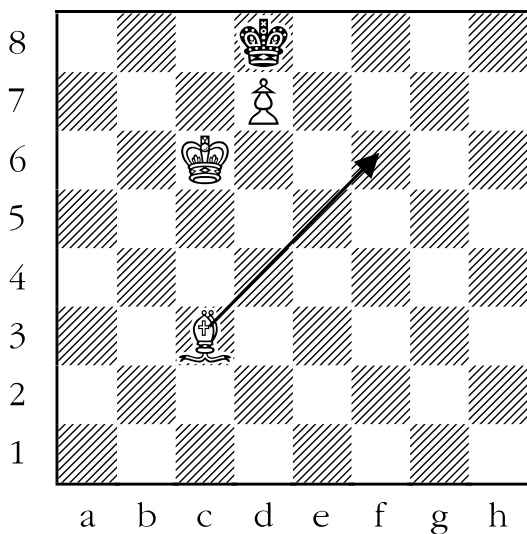
- b8 - the white king is guarding that square.
- a7 - the white bishop on e3 is guarding that square.
- b7 - both the white king and the light-squared bishop guard that square.



**7. ANSWER:** White has two possible checks, but only one of them is checkmate. If white tries to play his bishop to a5, the black king is in check, but not checkmate, since it has a safe escape square on e7.

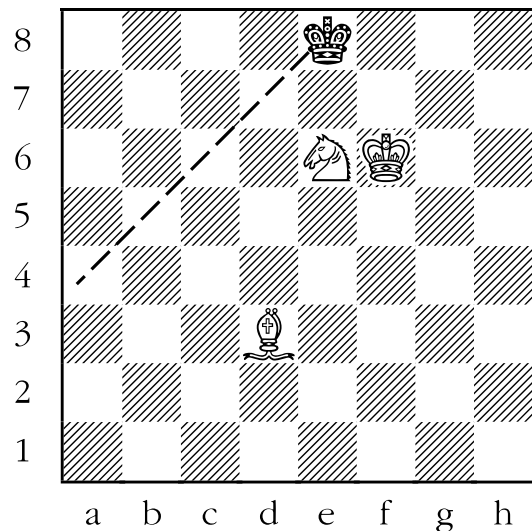
The correct way to checkmate the black king is to play the bishop to f6. The king can't:

- run to c8 or e8 because the white pawn attacks those squares.
- take the pawn because the white king guards it.
- run to c7 because the white king attacks that square.
- run to e7, because the white bishop is attacking that square.

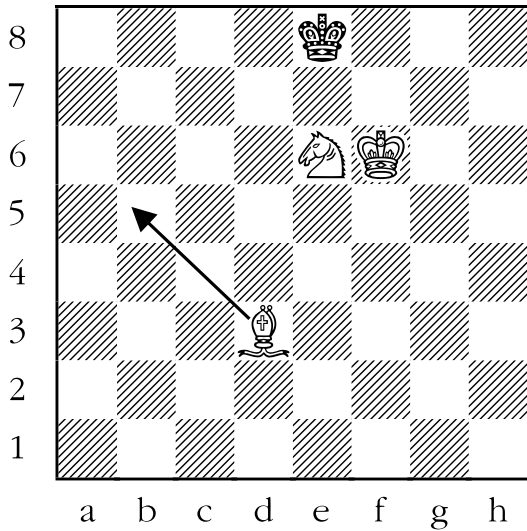


**8. ANSWER:** The white bishop has a choice of two “checks” on g6 and b5. One of them is checkmate, the other isn't. Let's try to play the bishop to g6 first. The black king is in check, but can flee to d7. On the other hand, if the bishop is played to b5 instead, then any attempt to run to d7 is illegal because the bishop is attacking that square.

The key to solving this and the previous problem is to do a little visualization. You want to check the king and also to eliminate its flight (escape) square. The two squares (the one the king is standing on and its flight square) are lined up diagonally. If you mentally draw a line between the two squares, and then extend that line further, you will see that all that you have to do is place a bishop on one of the squares that the line passes through to deliver checkmate. Here is what the line should look like, in this example, in your mind:

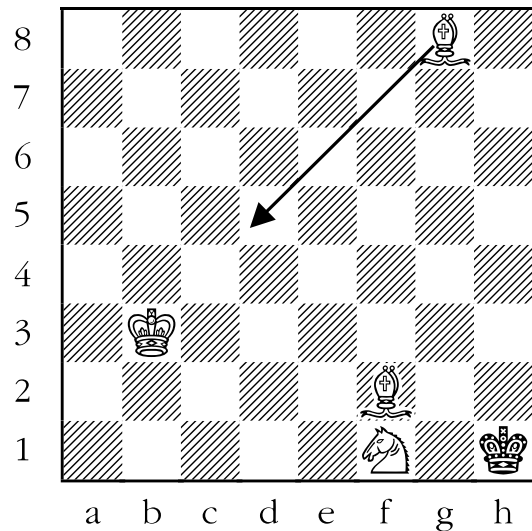


Any of the squares a4, b5, or c6 would be safe places to attack the king from and checkmate him (d7 is unfortunately too close to the king, and would allow the bishop to be taken). With a little practice, anyone can do it! Below is the actual solution to the question:

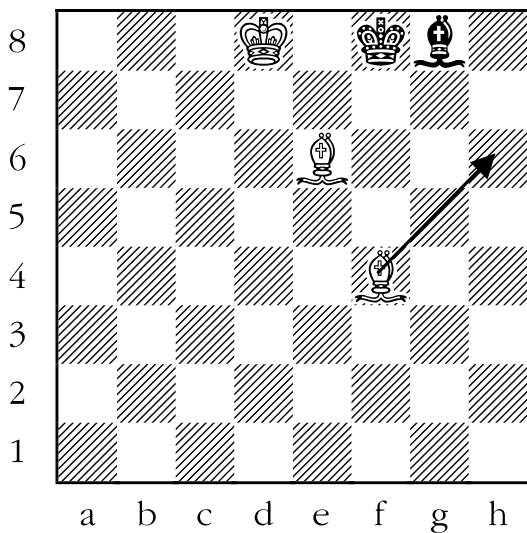


**9. ANSWER:** The black king is standing on a light square. The light-squared bishop moves to d5 to deliver checkmate. The king can't run to:

- g1 - the white bishop on f2 is attacking that square.
- h2 - the white knight is controlling that square.
- g2 - the white bishop on d5 is controlling that square.

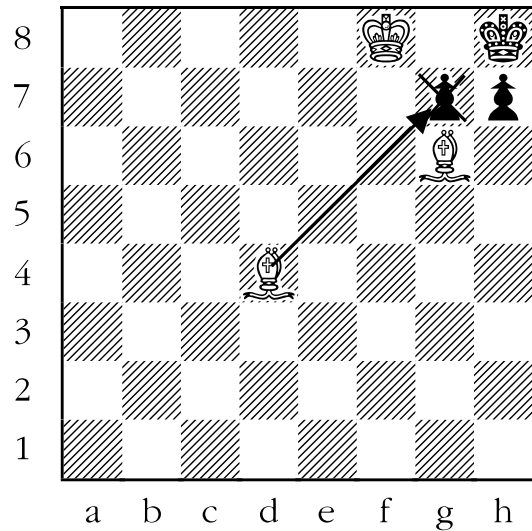


**10. ANSWER:** The black king is standing on a dark square. The dark-squared bishop can attack the king from two squares, d6 and h6. Which one is mate? The first thing you should notice is that the king only has one escape square if it is checked; g7. From h6, however, the bishop would both be attacking the king and attacking the g7 square, while from d6 the bishop would only be attacking the black king. Therefore, bishop to h6 is checkmate, while bishop to d6 is merely check.



**11. ANSWER:** The black king is standing on a dark square in the corner. The only way for the dark-squared bishop to attack the black king is to take the black pawn on g7. The black king can't:

- take the bishop on g7 because the white king is protecting the bishop.
- run to g8 because the white king is attacking that square.
- move to h7 because his own pawn is in the way.



# Lesson 13

## Checkmate with the Rook

### (Sheet 13-1)

#### Objective:

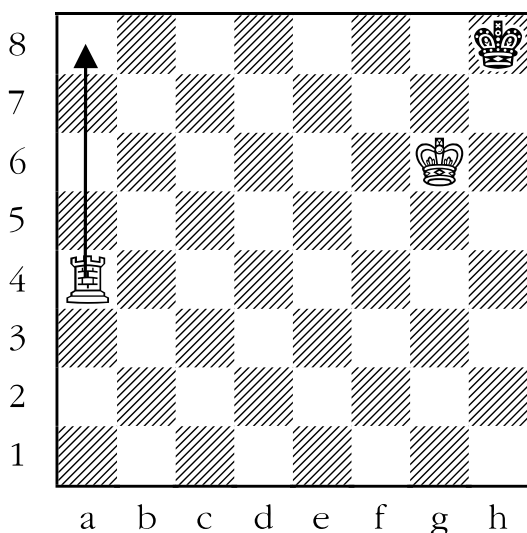
- Teach students typical checkmating patterns with rooks.

#### Skills Developed:

- Pattern recognition.
- Converting general instruction into concrete action.

The rook is quite a powerful piece, second only to the queen. Nevertheless, it generally needs the help of at least one other piece to deliver mate to the enemy king.

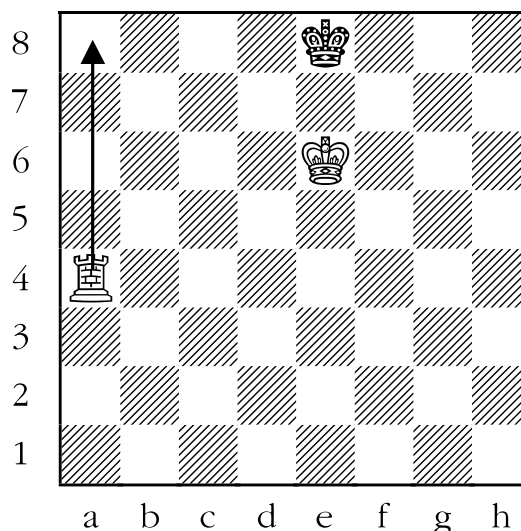
A few typical finishes to games involving a rook or rooks are shown below. In the first, a king and a rook are trying to checkmate a lone king.



White has driven the black king to the corner of the board. The only thing left to do is deliver the final blow. White has to attack the king with the rook and prevent it from escaping to g8. First draw a line in your mind from h8 to g8 and then extend that line from to f8, e8, d8, c8, b8, and a8. If

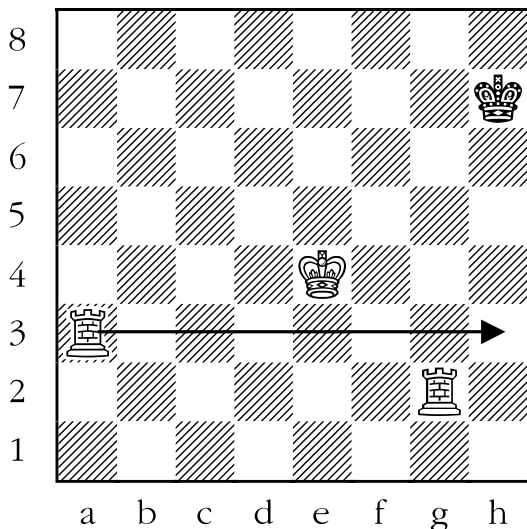
you place a rook (or queen) on that line, the black king would be in checkmate. The rook can go to a8, which is the checkmating move.

It is not necessary to drive the king to the corner of the board; the edge is sufficient. The following is an example of a rook and king checkmating a lone king on the side of the board.



Black's king is stuck on the edge of the board. The white king is preventing the black king from moving to any of d7, e7, or f7. All white has to do is attack the king on e8 while covering the king's possible escape squares of d8 and f8. Fortunately d8, e8, and f8 are all on the same horizontal line - and rooks move (and attack) horizontally. Thus, when the rook moves to a8 all three squares are covered and the king is checkmated.

*Checkmating with two rooks is quite easy once you get the hang of it. In the diagram below, the black king is trapped on the edge of the board.*



Knowing how to checkmate with one or two rooks against a lone king is of such importance that we will devote one lesson to each of these two types of checkmate later in this manual.

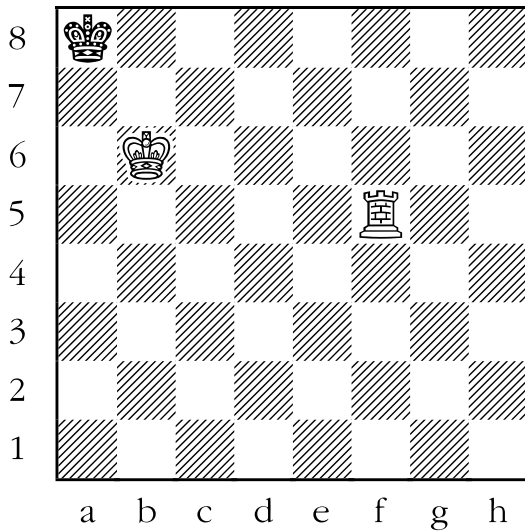
Which white rook will deliver checkmate here? Well, let's look at the respective tasks each rook is presently performing. The rook on g2 is preventing the black king from escaping off of the edge of the board, since it covers the flight squares g8, g7, and g6. The rook on a3 looks to be doing nothing. So it is logical that the rook on a3 is the one which will deliver the checkmate. The only problem is which square will the rook be checkmating the king.

Well, not only does the rook need to attack the king on h7, but it also has to attack the king's possible flight squares, namely h6 and h8. By now you probably see the move, especially if you notice that h6, h7, and h8 are in a vertical line, and that rooks move and attack vertically. **The winning move is to move the rook from a3 to h3.**

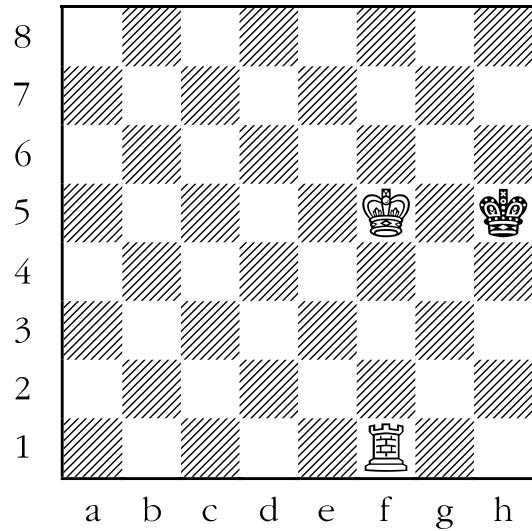
# Sheet 13-1: Checkmate with the Rook

How does white checkmate black with a rook in one move? For each of the following diagrams, draw an arrow to show how.

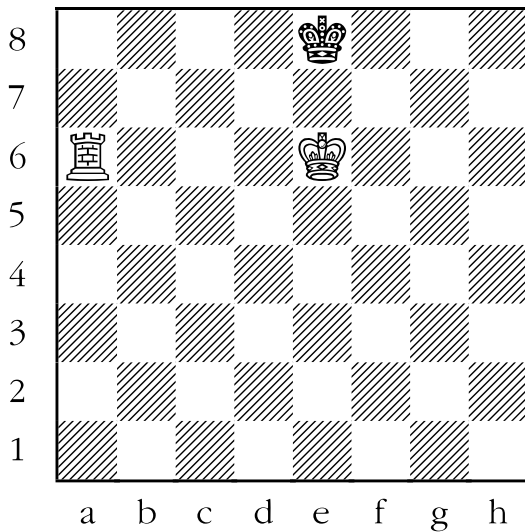
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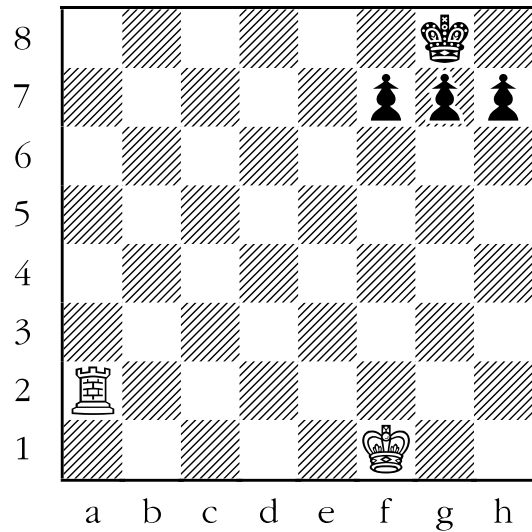
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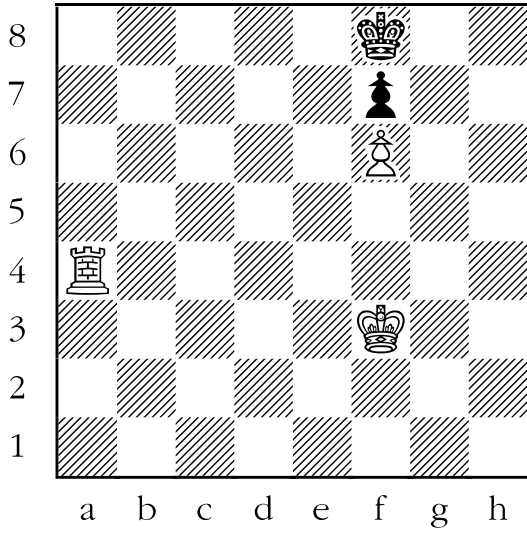


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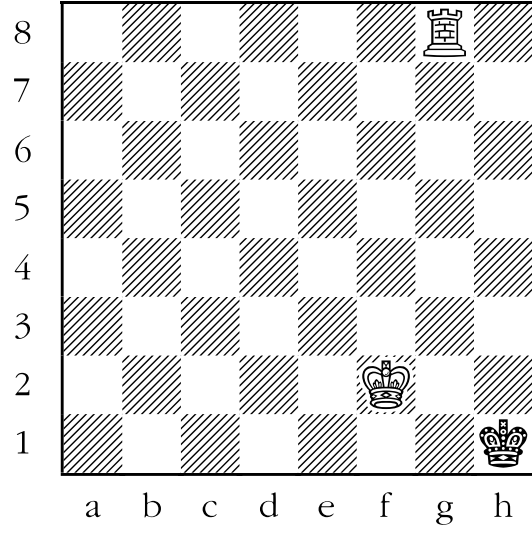


# Sheet 13-1: Checkmate with the Rook

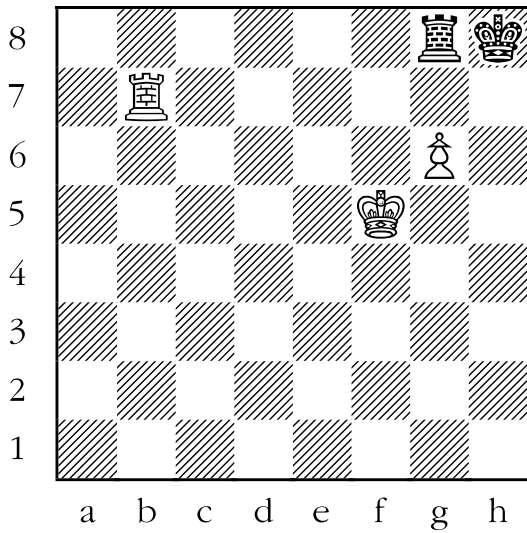
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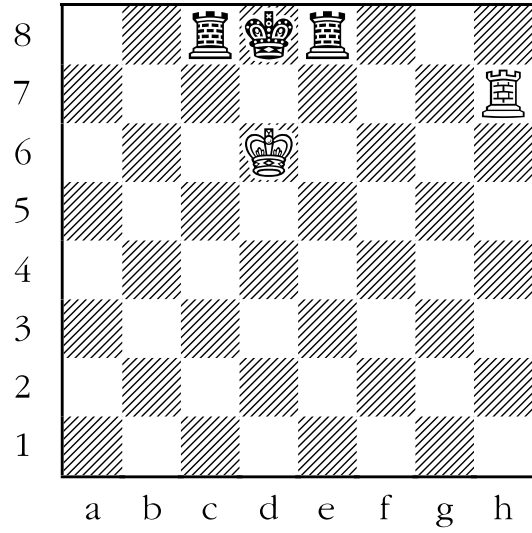
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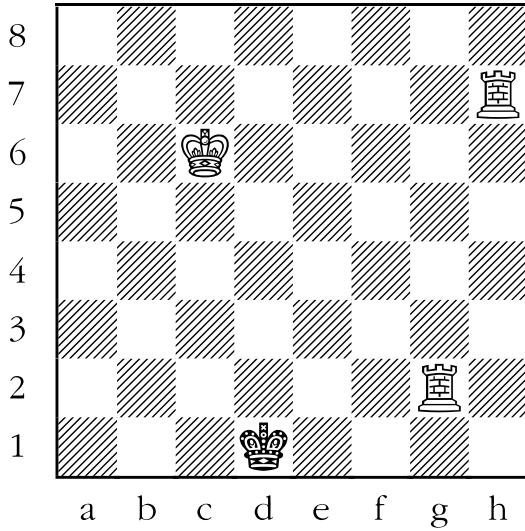


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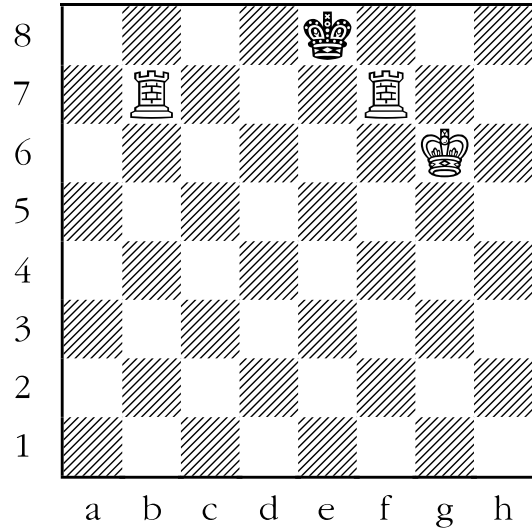


# Sheet 13-1: Checkmate with the Rook

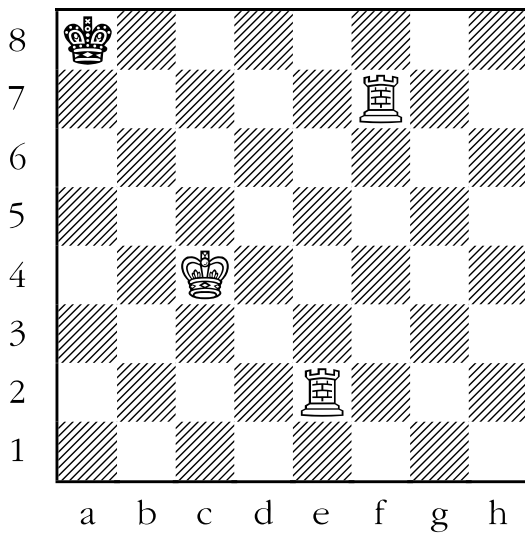
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# Answer Sheet 13-1:

## Checkmate with the Rook

How does white checkmate black with a rook in one move? For each of the following diagrams, draw an arrow to show how.

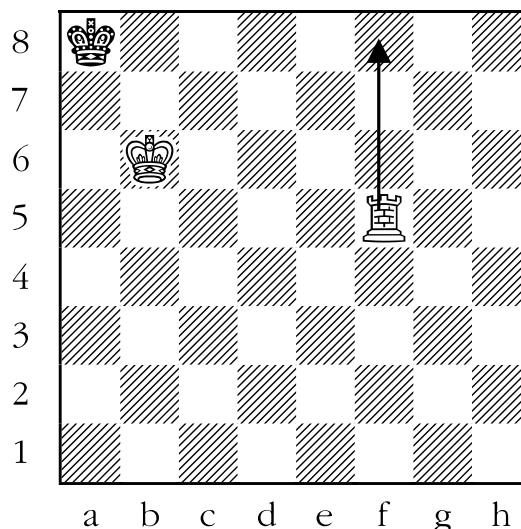
**1. ANSWER:** Below we see an example of a common finishing position when a king and a rook try to checkmate a lone king. White's rook has two squares from which to check the black king. These squares are a5 and f8. If the rook moves to a5, the king can escape to b8.

However, if the rook moves to f8, the king is in checkmate. It can't move to:

- a7 or b7 because the white king is guarding those squares.
- b8 because the white rook is guarding that square.

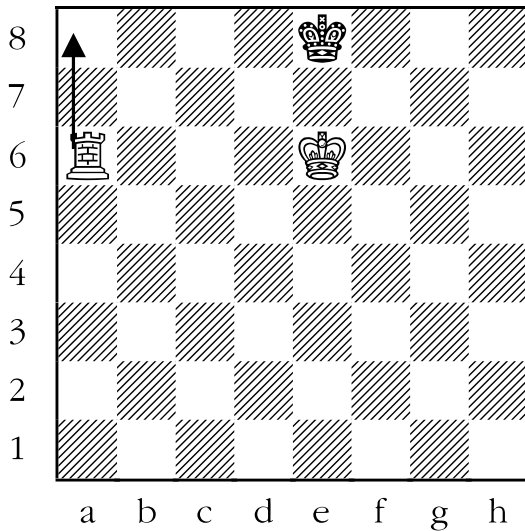
A way to figure out which square is checkmate is to do the visualization technique discussed in the preamble to this section.

Here is how it goes. The king is on a8; its only escape square is b8. Mentally draw a line between these two squares and extend the line to c8, d8, e8, f8, g8 and h8. If a white rook or queen were to be on any of those squares, the king would be checkmated.



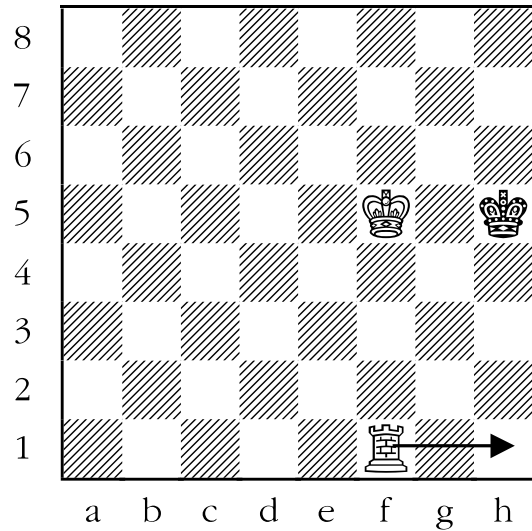
**2. ANSWER:** The following diagram is another common final position when a king and rook are trying to checkmate a lone king. White moves his rook to a8. The king can't move to:

- d7, e7, or f7 because the white king is attacking those squares.
- d8 or f8 because the white rook is attacking those squares.

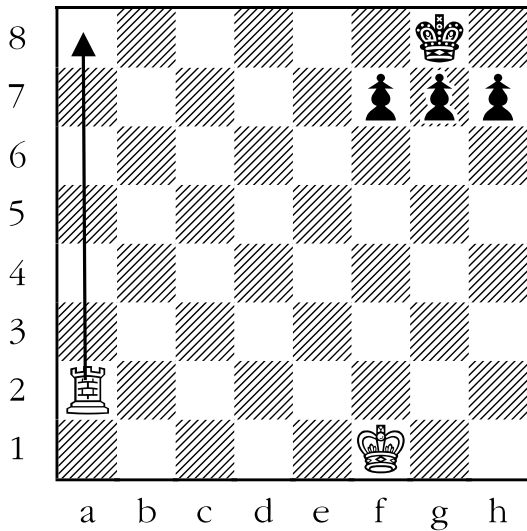


**3. ANSWER:** This position is symmetrical to the last one (using the a1-h8 diagonal as the line of symmetry). The solution is to move the rook to h1. The king can't move to:

- g4, g5, or g6 because the white king covers those squares.
- h4 or h6 because the rook is covering those squares.

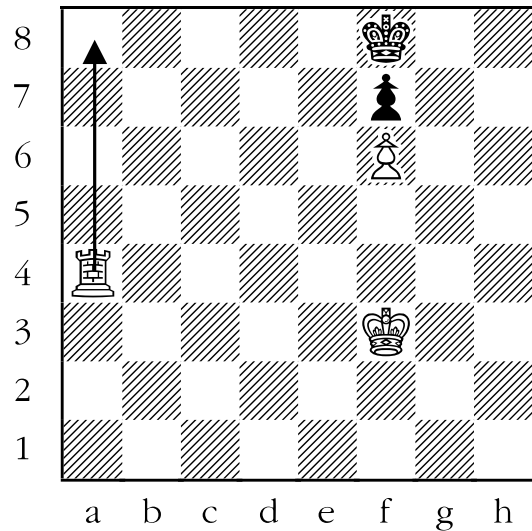


**4. ANSWER:** The black king is blocked in by his own pawns on f7, g7, and h7. If white moves her rook to a8, the black king is in checkmate. The king can't move to f8 or h8 as the rook would still be attacking the king. The students should be on the lookout for delivering this type of checkmate to unsuspecting opponents. *This tactical theme is called a "back rank mate".* We will be seeing more complex "back rank mates" later in this manual.



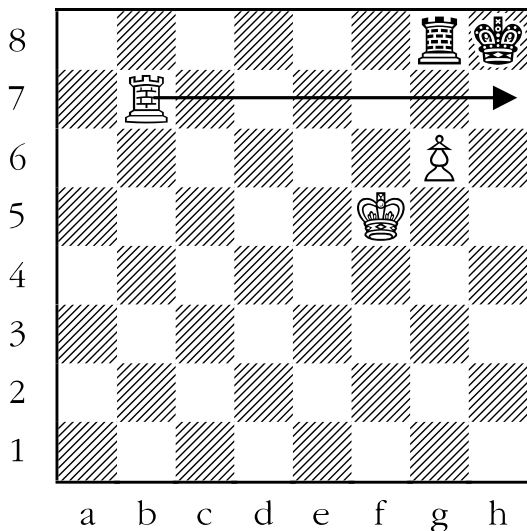
**5. ANSWER:** White can checkmate the black king by moving his rook to a8. The king can't move to:

- e8 or g8 because the rook would still be attacking the king there.
- e7 or g7 because the white pawn is covering those squares.
- f7 because his own pawn is in the way.



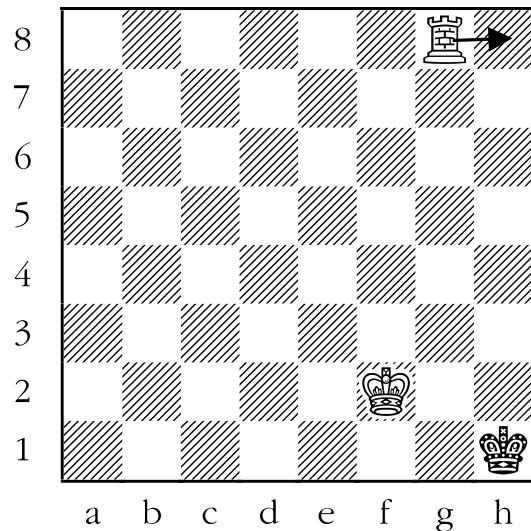
**6. ANSWER:** Black is checkmated if white moves his rook to h7. The king can't:

- take the white rook because it is guarded by the pawn.
- move to g8 because the black rook occupies that square.
- move to g7 because the white rook is attacking that square.



**7. ANSWER:** White has two ways to attack the black king.

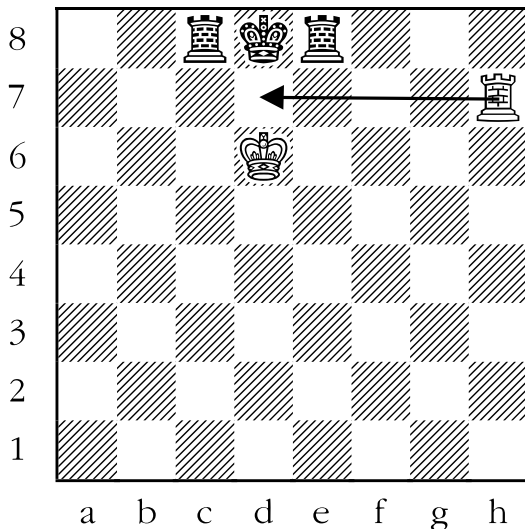
- 1) move the rook to g1. In this case, however, the king is not in checkmate because it can run to h2.
- 2) move the rook to h8. In this case, the black king is checkmated. It can't run to:
  - g1 or g2 because the white king is attacking those squares.
  - h2 because the white rook is attacking that square.



**8. ANSWER:** White can checkmate the black king by moving his rook to d7. The king can't:

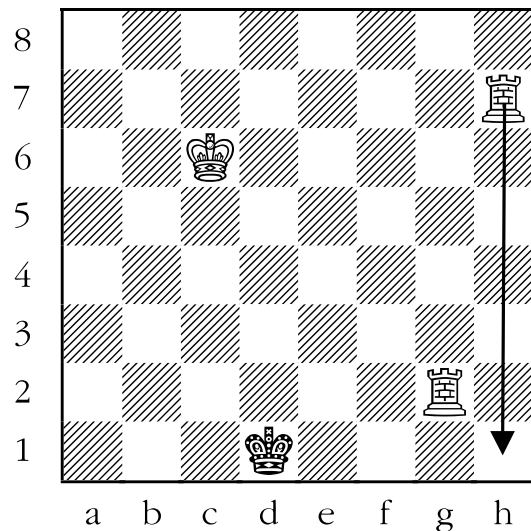
- take the rook because the white king guards it.
- move to either c8 or e8 because in each case a black rook is standing on that square.
- move to either c7 or e7 because both the white rook and white king are attacking that square.

This type of mate is the “epaulette mate”; the two rooks stand like a pair of shoulder pieces on the king. An interesting fact, but not terribly useful.

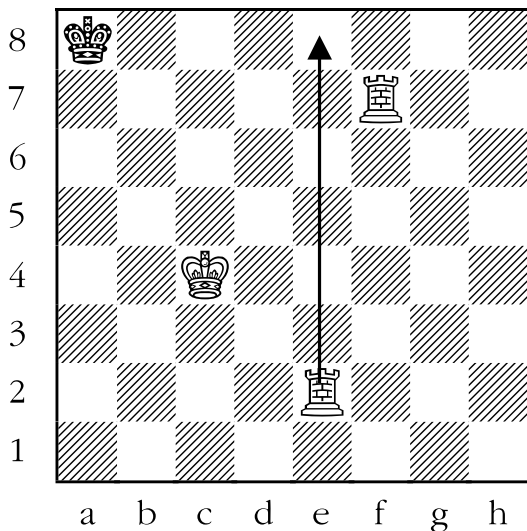


**9. ANSWER:** This diagram is a typical finale when two rooks are combating a king. The black king is trapped on the edge of the board. By which piece? The rook on g2, which prevents the king from moving to any of c2, d2, or e2.

The other rook isn't doing anything useful. So let's swing it into action. Moving the rook from h7 to h1 would place the king in checkmate. This rook covers all of the squares that the king could move to on white's first (black's eighth) rank. The other rook, as stated earlier, controls the other squares.

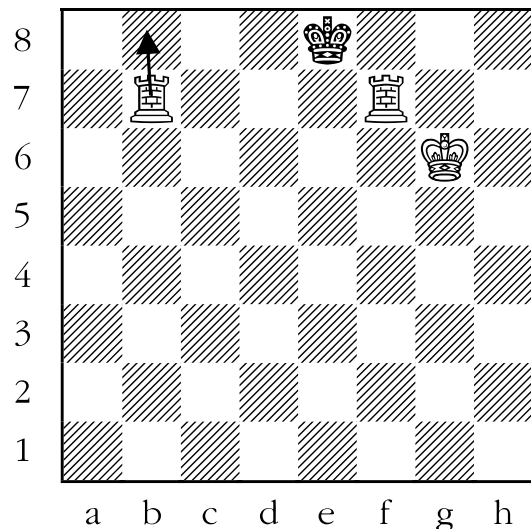


**10. ANSWER:** The following diagram is another case of two rooks versus a lone king. The rook on f7 is preventing the black king from leaving black's first rank. The other rook is doing nothing particularly useful. If it were to move to a2, it would be checking the black king, but not checkmating it, because the king could move to b8. The correct place to move the rook is to e8, which not only checks the king, but also attacks the b8 square as well.



**11. ANSWER:** White has four possible checks, but only one of them is checkmate. Let's take them one at a time.

- 1) If white moves his rook on f7 to e7, the black king can run to either of d8 or f8.
- 2) If white moves the rook from b7 to e7, the black king can run to d8 (but not f8, because the rook on f7 is attacking that square).
- 3) If the rook on f7 moves to f8, the black king has only one legal move, but it is very good in that it can take the white rook on f8.
- 4) The checkmate is to move the rook from b7 to b8. The black king can't:
  - move to d8 because it would be under attack from the rook on b8.
  - move to f8 because it would be under attack from both rooks.
  - move to e7 or d7 because it would be under attack from the white rook on f7.
  - take the white rook on f7 because the white king is guarding that rook.



# Lesson 14

## Checkmate with the Queen

### (Sheet 14-1)

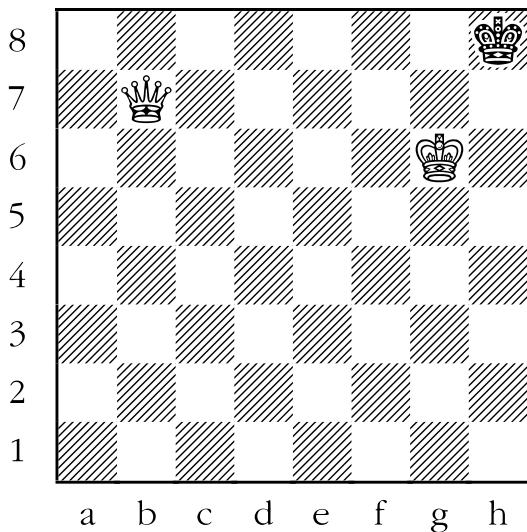
#### Objective:

- Teach students typical checkmating patterns with queens.

#### Skills Developed:

- Pattern recognition.

Although the king is the most valuable piece on the chessboard, the queen is the most powerful. Below we see just how powerful:



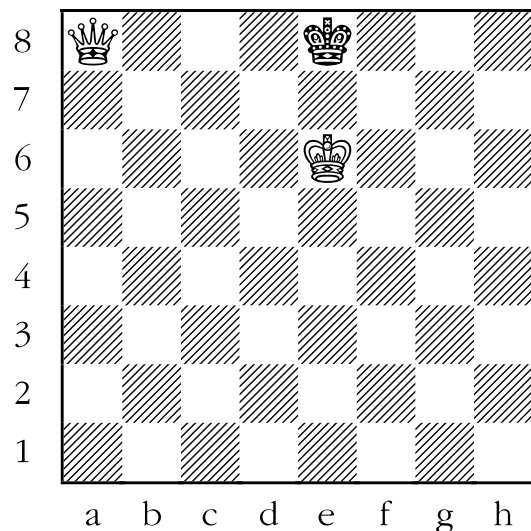
In the position above, pretend that the white queen is a white bishop or a knight. In both instances the piece can't even check the king in one move, let alone checkmate it! If we replace the queen with a rook, you should be able to find that there is one checkmate possible, by moving the rook from b7 to b8.

Now let's put the queen back and look at the diagram again. How many possible checkmates in one turn are there? There are five. The queen can:

- deliver checkmate like a rook by moving to b8.
- move like a bishop to either a8 or c8 and from there it is checkmate in the same way that it was from b8.
- move to either g7 or h7. From there, safely defended by the white king, it would both attack the black king and control its escape squares.

Quite impressive.

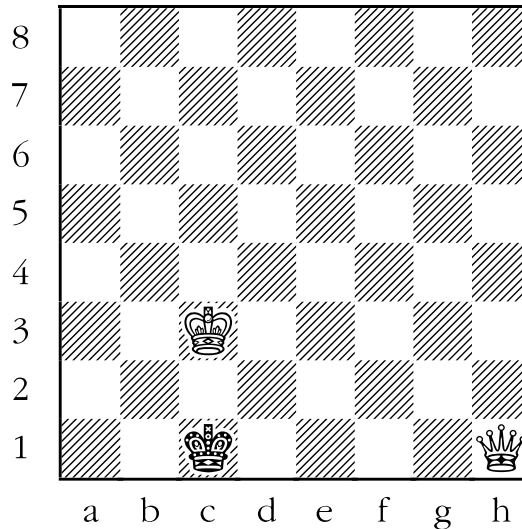
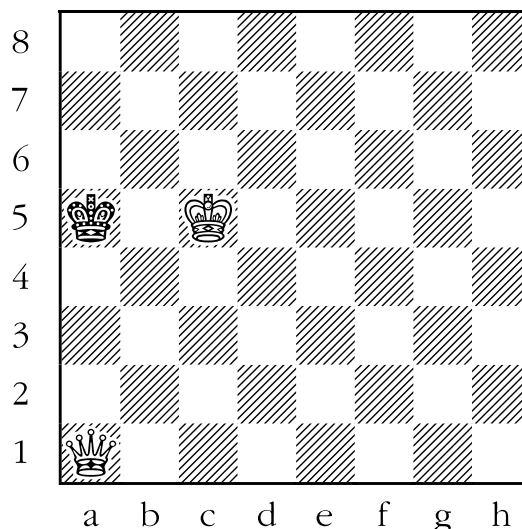
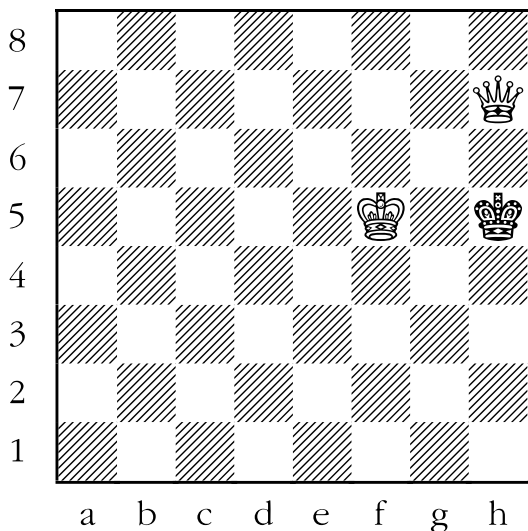
There are two typical checkmating patterns that the students should become aware of as soon as possible. The first should be very familiar from the last two sheets. This is the position:



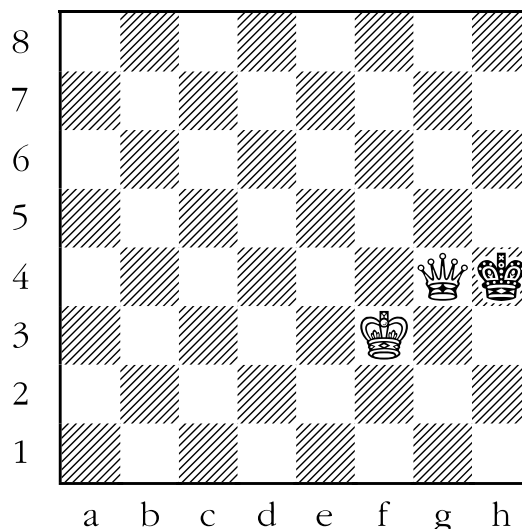
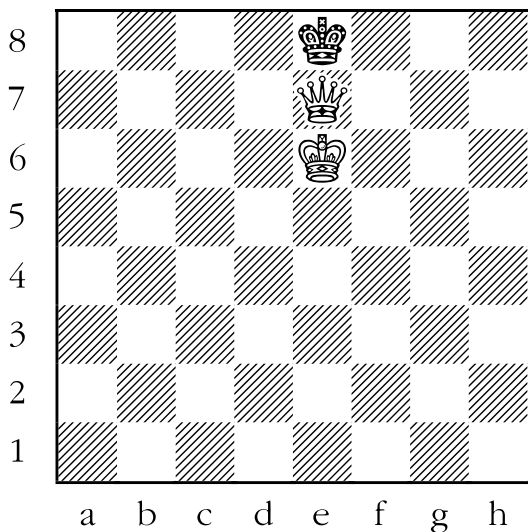
Above, the queen is attacking, in effect, like a rook. It attacks the black king on e8, while also covering two potential flight squares: d8 and f8. The white king

covers all of the potential flight squares along black's second rank: d7, e7, and f7. Of course the precise square that the white queen occupies along the rank a8 through h8 is not important, as long as the black king can't take it.

The main thing to get the student to realize is that *it is almost always necessary for at least two pieces to be working in harmony to deliver checkmate against the enemy king*. When a king and queen checkmate a king they will get a position like the one above, or one of the ones below. After all, the next three positions are essentially identical in effect to the one above.

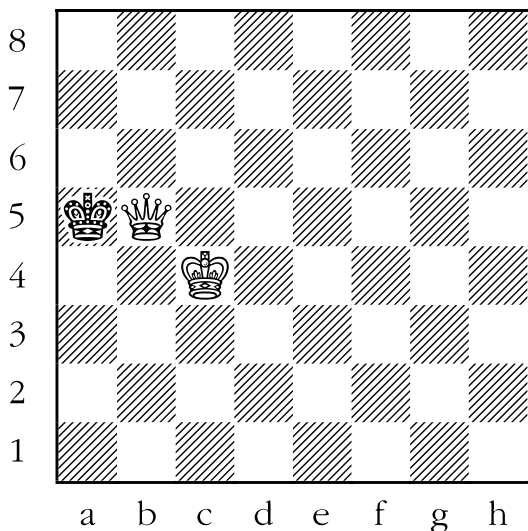
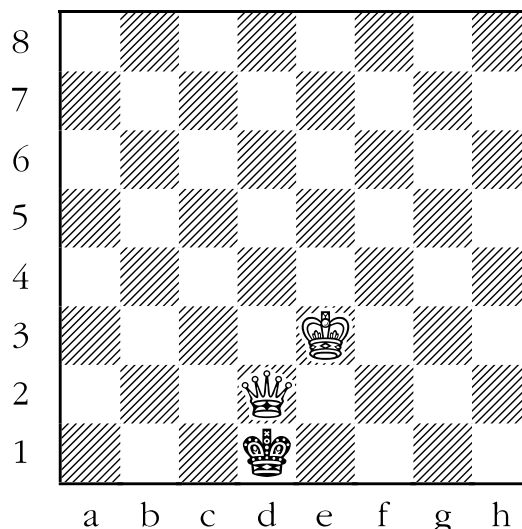


The second important position for the students to understand is this one:



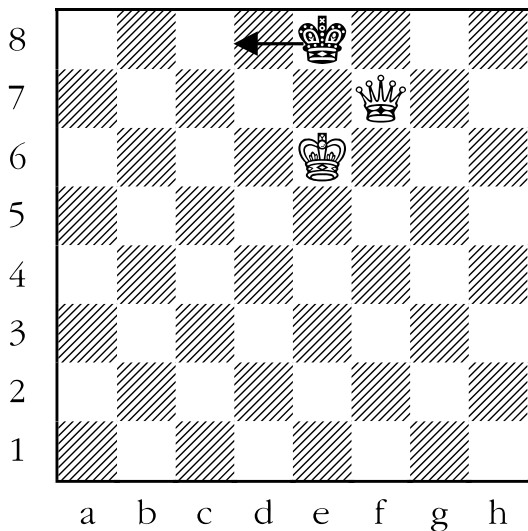
The queen is directly below the defending king. The queen is attacking the black king, but is also covering every flight square that the black king has. Notice also that the white king defends the queen.

Here are three additional examples of checkmate. They may at first appear to be very dissimilar, but are in fact identical types of checkmates to the one directly above.

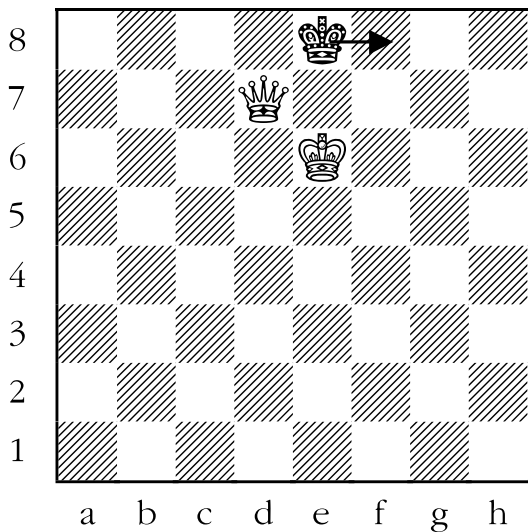


In all four of the positions above, the attacking queen was either on the next square horizontally or vertically away from the defending king. This is necessary; the following two positions should make that clear.

The position below is **not** checkmate. The queen is diagonally one square away, and this allows the black king to escape to d8.



Once again the queen is located right next to the king, diagonally. The king can escape in the other direction, to f8.

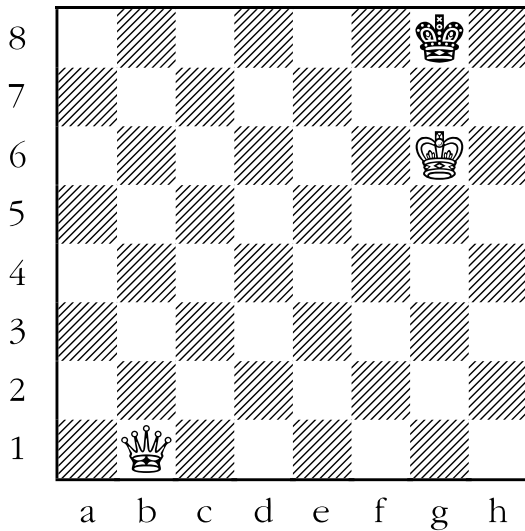


As you can see, it is not terribly difficult to checkmate the king once it is on the edge of the board. As for how to drive him to there, that will be covered later in this manual.

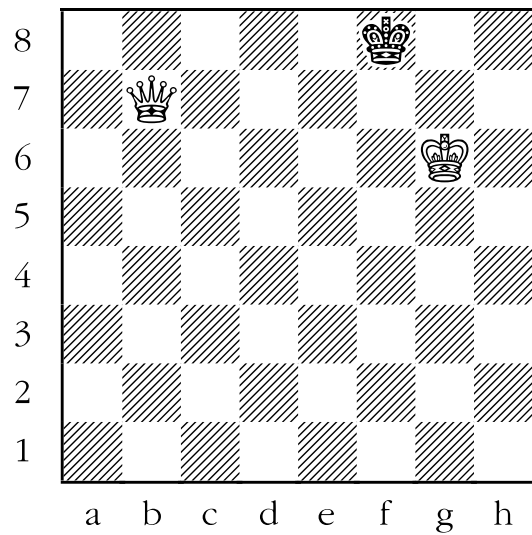
# Sheet 14-1: Checkmate with the Queen

How does white checkmate black with a queen in one move? For each of the following diagrams, draw an arrow to show how.

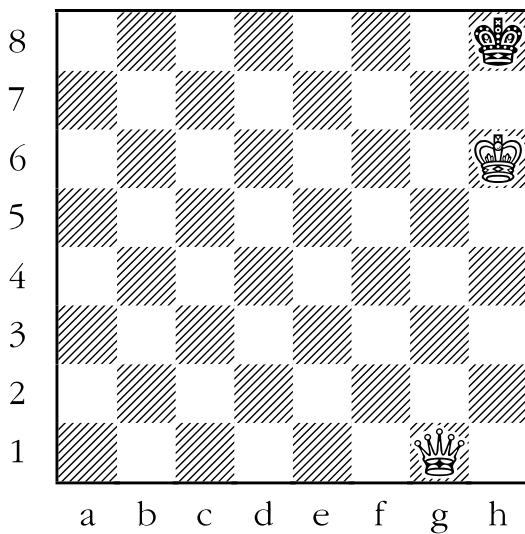
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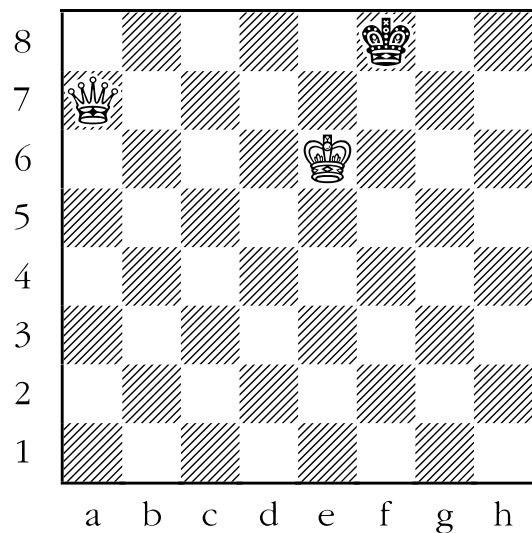
3.



2.

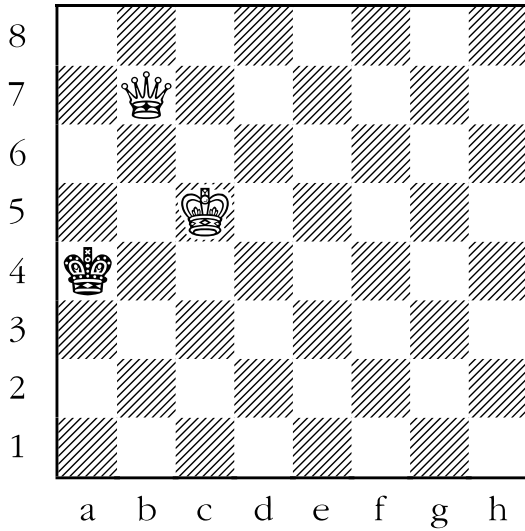


4.

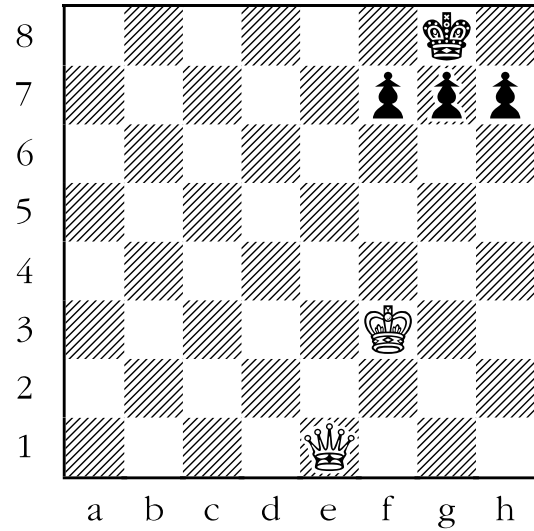


# Sheet 14-1: Checkmate with the Queen

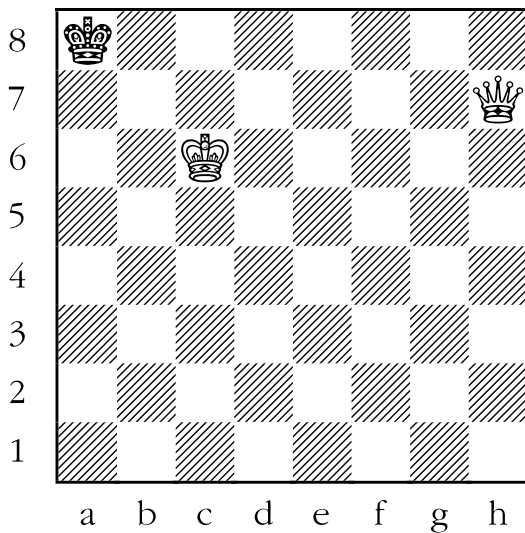
5.



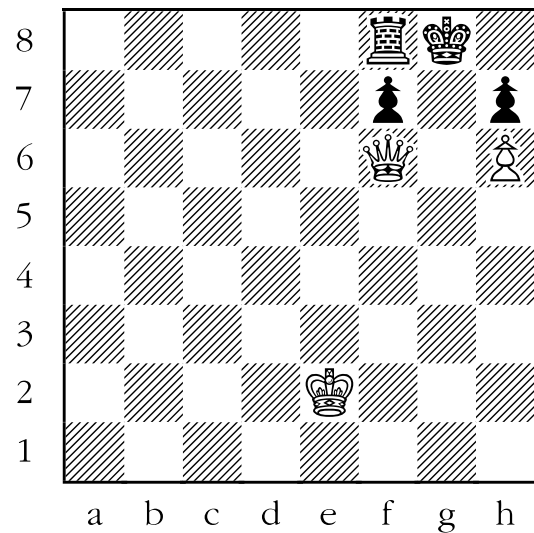
7.



6.

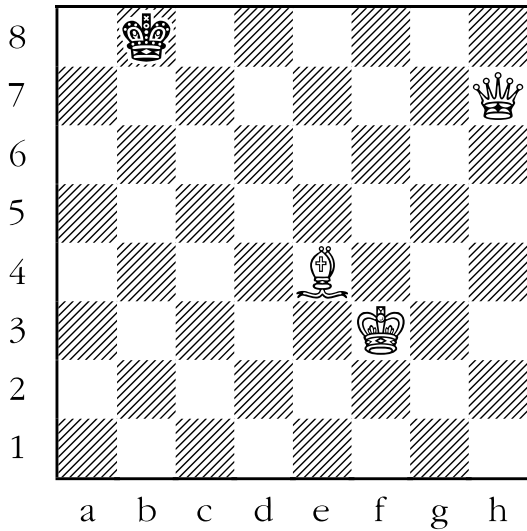


8.

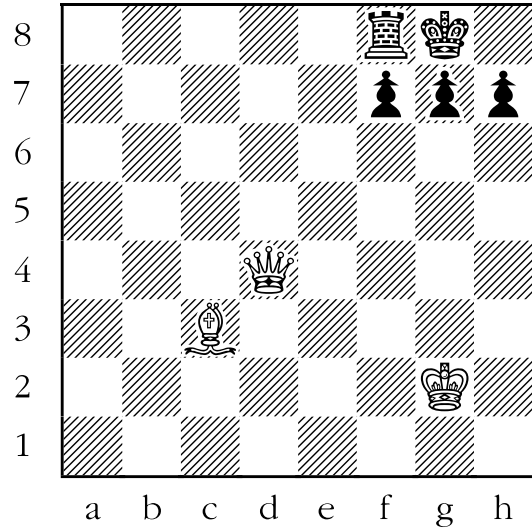


# Sheet 14-1: Checkmate with the Queen

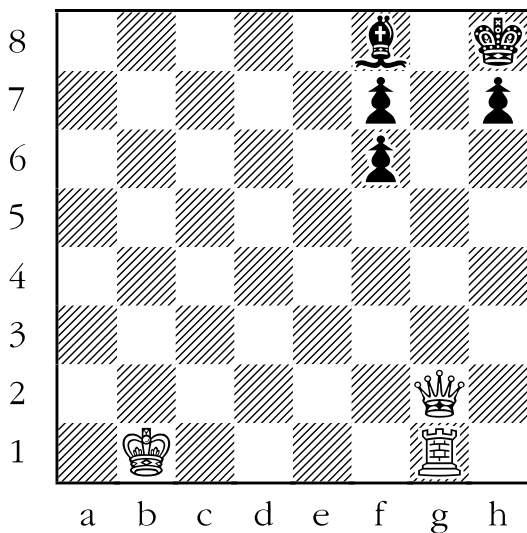
9.



11.



10.

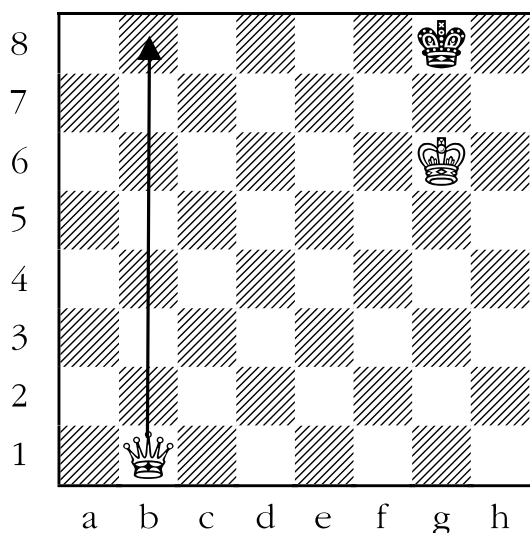


## Answer Sheet 14-1: Checkmate with the Queen

How does white checkmate black with a queen in one move? For each of the following diagrams, draw an arrow to show how.

**1. ANSWER:** Queens combine the movement of the rook and the bishop. If the white queen on b1 were a rook, white could checkmate black by moving to b8. Therefore, the same must be true for the queen. If instead, however, white moved the queen to a2, for example, the black king would be in check, but not in checkmate since it could escape to f8 or h8.

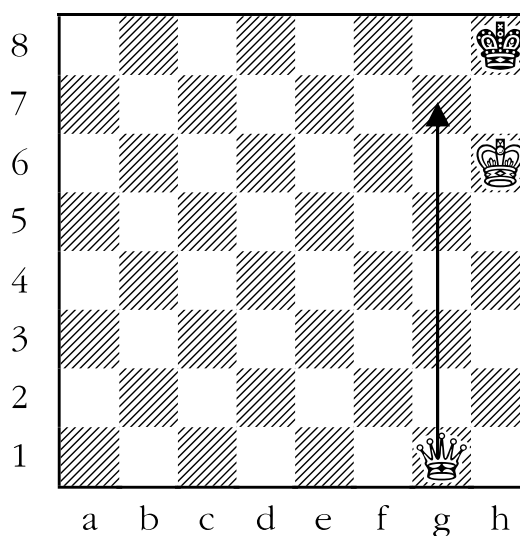
The diagram below is a common final checkmating pattern at the end of a chess game.



**2. ANSWER:** A problem with trying to checkmate with the queen on an open board is the large number of tempting checks. In the case below, the queen can check the king by moving from g1 to any of: a1, d4, g7, and g8.

If the white queen goes to:

- 1) either a1 or d4, the black king can run to g8.
- 2) g8, the black king can simply take it, since the white king doesn't defend it.
- 3) But if the queen moves to g7, black is checkmated. The king can't:
  - run to g8, because the queen attacks that square.
  - run to h7 because both the white king and the white queen attack that square.
  - take the queen, because the white king is guarding the queen.

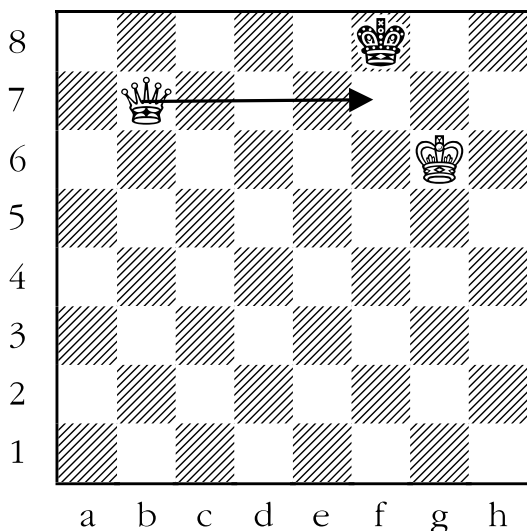


**3. ANSWER:** The following example is another instance where the sheer number of possible solutions make this problem seem more difficult than it is. Note that the white queen not only has to attack the black king on f8, but also cover the squares e7, e8, and g8 (f7 and g7 are already covered by the white king). A good rule of thumb to follow is to get the queen as close to the enemy king as possible on a protected square. Let's see how this works in practice.

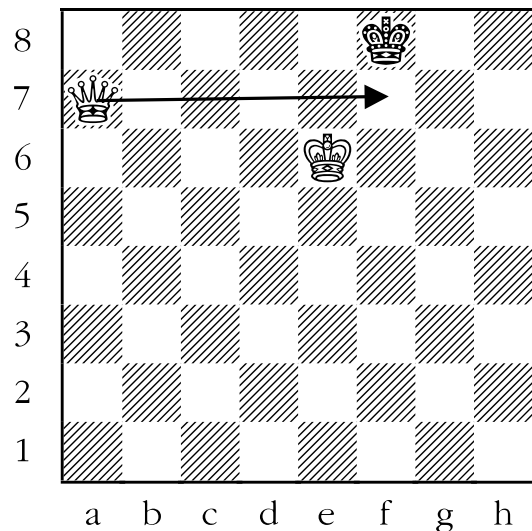
If the white queen tries to checkmate the king by moving to a8, b8 or c8 then the king runs away to e7. If the white queen tries to checkmate the king by moving to b4 or f3, the black king has multiple escape squares.

Let's get the queen closer. What about moving the queen to e7? No, the king can take the queen there. What about moving the queen to g7? At least here the queen is defended, but even so the king can escape to e8.

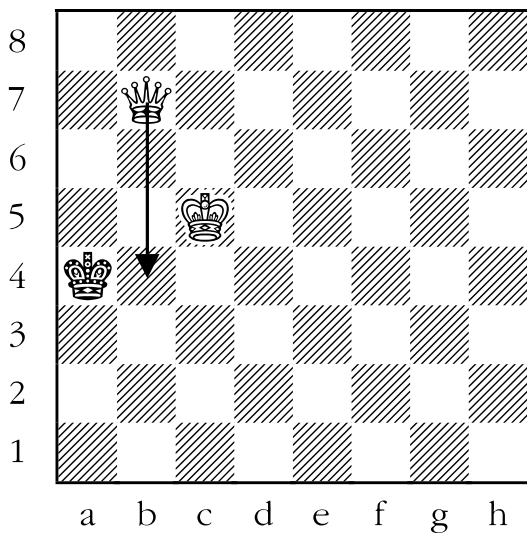
Let's get the queen (geometrically) even closer. If we move the queen to f7 the king is checkmated. It can't run to e7, e8, or g8 since the queen covers all of those squares.



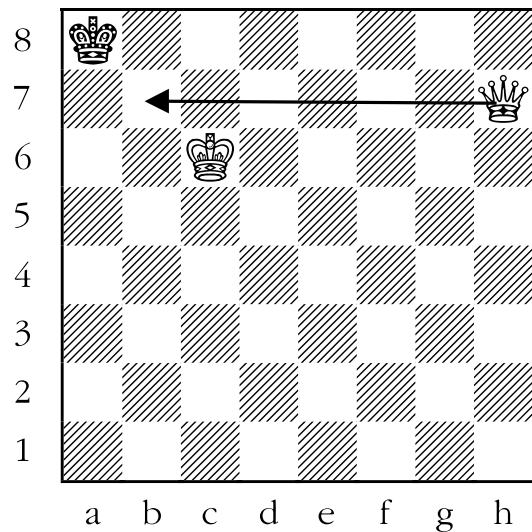
**4. ANSWER:** The following diagram is virtually identical to the previous position, except that the king is on e6 instead of g6. This makes absolutely no difference to the solution. When a queen and king attempt to mate a lone king, sometimes the king's sole function is to defend the queen from being captured by the opposing king.



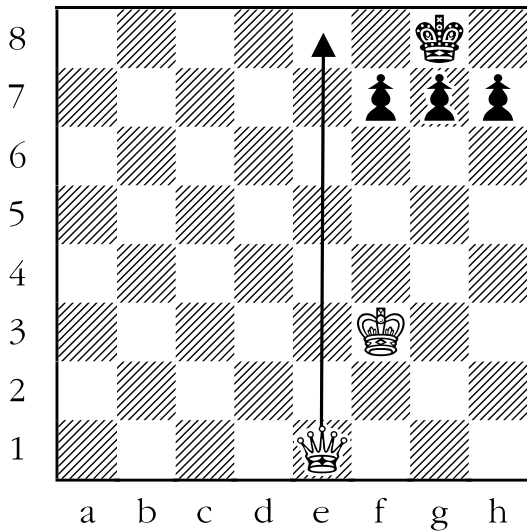
**5. ANSWER:** Perhaps surprisingly, this example is virtually identical to the previous two questions. The black king is trapped on the edge of the board, and the white king is only two squares away. All white has to do is put the queen as close to the king as is safely possible. In this case that would be moving the queen to b4. The king can't take the queen, because the white king is defending it. The king can't run away because the queen covers all of the escape squares.



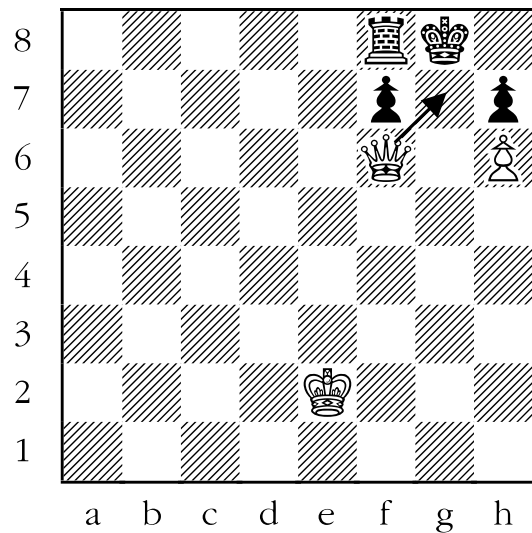
**6. ANSWER:** This time the black king is trapped on the corner of the board. If white tries to get the queen as close (geometrically) to the black king as possible by moving her to a7, it would be a disaster. The king could simply take the queen. Instead white should move the queen to b7, where it attacks the black king from a guarded location. Notice that in this case, the queen checkmated the king from a square located in a diagonal direction. This is a bit unusual, but the king was basically trapped in the corner of the board.



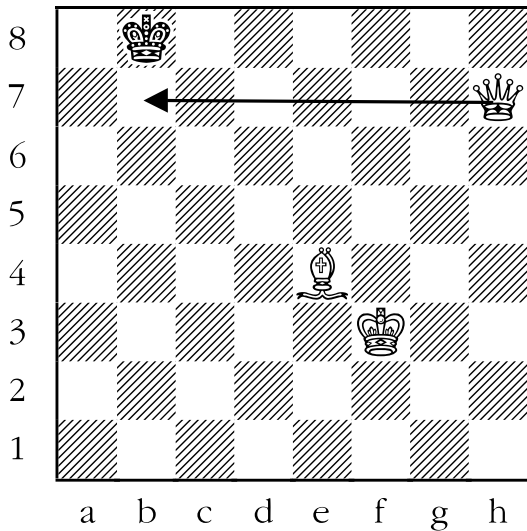
**7. ANSWER:** This example is a review of the “back rank mate”. If the white queen were a rook, then moving it to e8 would be checkmate. This makes no difference; if the queen moves to e8 the king is checkmated in exactly the same way.



**8. ANSWER:** In this diagram, a pawn and a queen team up to deliver checkmate to the black king. The queen checkmates the black king by moving to g7. The king has nowhere to run, and can't take the queen because it is guarded by the white pawn. Neither the black rook nor the black pawns can capture the queen on g7.

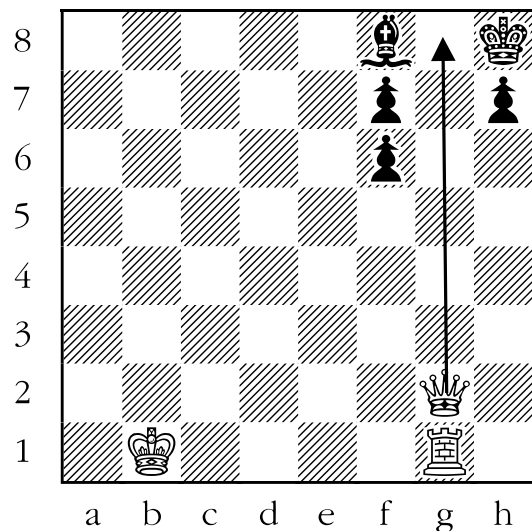


**9. ANSWER:** In the following example, the white queen and bishop team up to checkmate the black king. Look to place the white queen as near the black king as is safe. The queen can move safely to b7 because the white bishop guards it. The king can't run away because the white queen covers all of its escape squares.



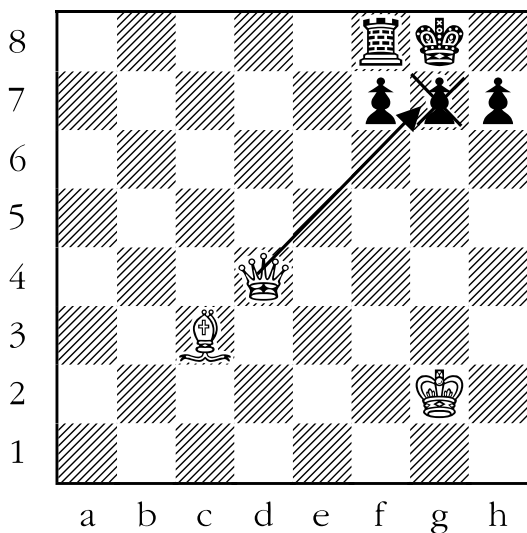
**10. ANSWER:** The white queen and rook team up to checkmate the black king. White has a choice between two checks, and both look very tempting:

1. If the white queen moves to g7, the black king is in check. But it is not in checkmate. That is because the black bishop could (and in fact would have to) take the queen if it went there.
2. It would be better for white if the queen went to g8. In this case none of the black pawns, or the black bishop, could take it. The black king couldn't take the queen because the rook defends it. Finally, the black king couldn't escape to g7 because both the white queen and white rook are attacking that square.



**11. ANSWER:** The following diagram is a slightly camouflaged example of a queen and a bishop delivering checkmate, for several reasons. The queen can take the black pawn on g7.

- Neither of the black pawns can take the queen.
- The black rook can't take the queen.
- The black king can't take the queen because the bishop defends it.
- The king can't run to h8 because the white queen is attacking that square.



# Lesson 15

## Checkmate with the Knight

### (Sheet 15-1)

#### Objective:

- Teach students basic checkmating patterns with the knights.

#### Skills Developed:

- Pattern recognition.

Most novice players - and quite a few Masters - find the knight a most captivating piece. Perhaps it is the non-linear way that it moves or its ability to jump over all obstacles in its path. More likely, it is the look of shock and dismay on the opponent's face after being victimized by a surprising knight sortie - a real "knightmare".

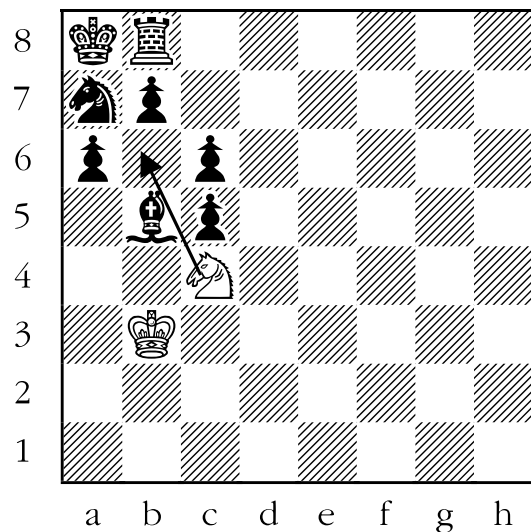
All joking aside, the knight does have some unique attributes which make defending against it a little different. Remember back in Lesson 7 we talked about check and the three ways to escape it? To refresh your memory, these were:

1. **Capture the checking piece.**
2. **Run away.**
3. **Interpose (block) the check.**

When faced with a knight check, forget about the third option. *It is impossible to block a knight check since the knight can leap over any piece in its path.*

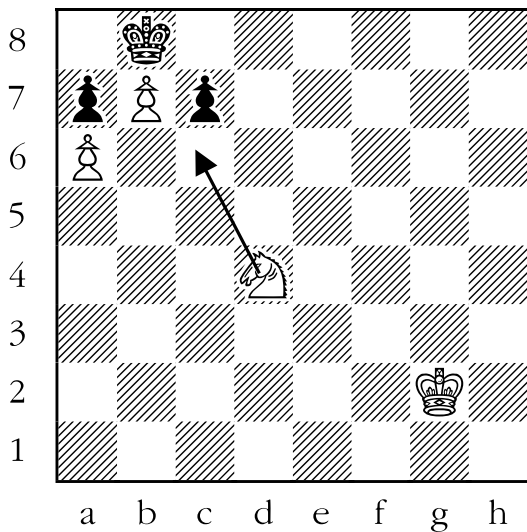
But the knight has a weakness, too. Whereas bishops, rooks, and queens can all deliver a blow from a relatively safe distance, the knight has to be in the thick of things.

Below we can see an example of the knight's unique abilities.



In this instance, black has a huge material advantage, and under normal circumstances would win easily. But the white knight has other ideas. If it hops into b6, the black king is checkmated, surrounded by its friendly entourage. Such a finish where the king is entombed by its own teammates is called a "**smothered mate**". What the player losing in such a way might call the final position is not publishable in a chess manual.

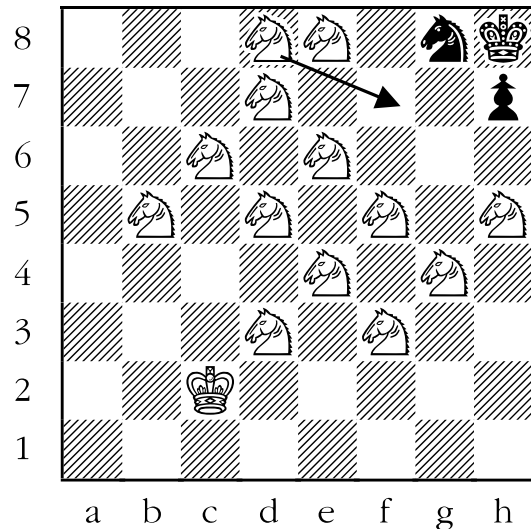
When faced with a choice of squares to move the knight to, the student should first consider where the action is taking place, and aim the knight in that direction.



The question for white above is which of the eight moves available to the knight is checkmate? As a way of simplifying the decision, let's use some common sense. The knight should try to get close to the king - certainly closer than it is now. This immediately eliminates all possible tries except moving the knight to b5, c6, and maybe e6. However, upon greater inspection, moving the knight to c6 allows the knight to attack the king. As a result, the king can't:

- run to a8 or c8 because the white pawn on b7 controls that square.
- take the pawn on b7 because it is defended by the pawn on a6.

One last thing to remember when dealing with knights is that they alternate from dark to light squares. The upshot of this is that if the opponent's king is on a light square, for example, a knight can only check it from a dark square. That means you should only look at knights presently on light squares, in this example. Confusing? To clarify, here is an example:

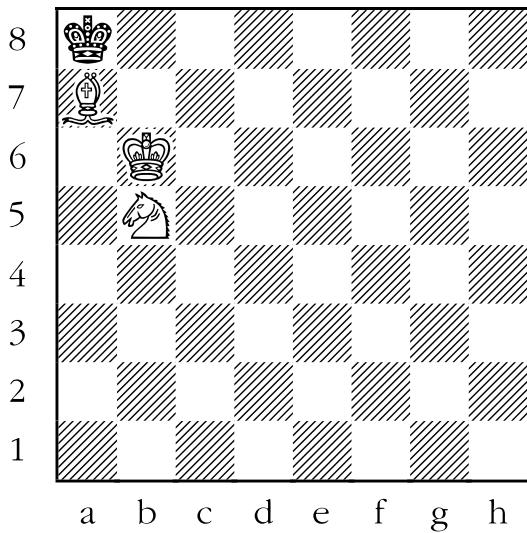


Which of the white knights above can checkmate the black king in one move? Let's take this step by step. The black king is on a dark square. This means that the knight that delivers the checkmate must do so from a light square. In order to get to that light square, the knight must presently be on a dark square. Only the knight on d8 is on a dark square, and by moving to f7 it would deliver checkmate. Of course, the above example is for instructional purposes only, and could never happen in an actual game.

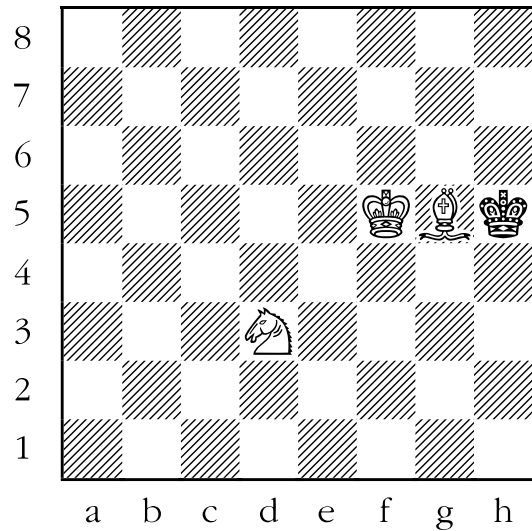
# Sheet 15-1: Checkmate with the Knight

How does white checkmate black with a knight in one move? For each of the following diagrams, draw an arrow to show how.

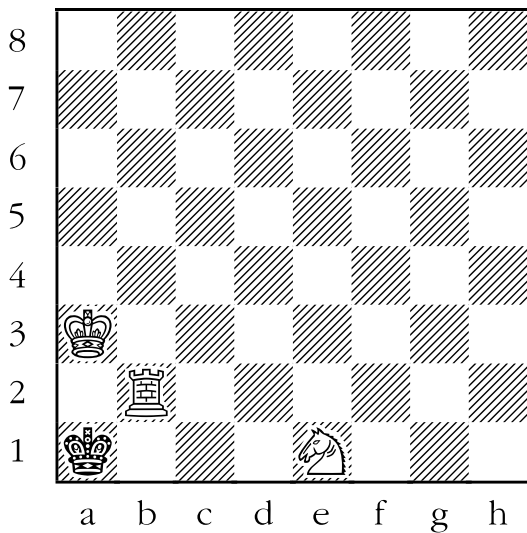
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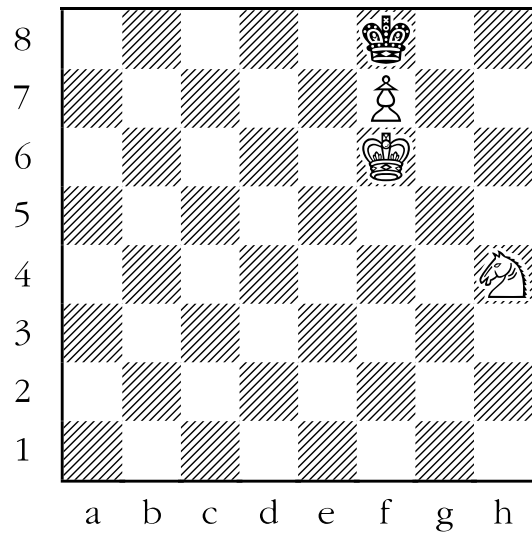
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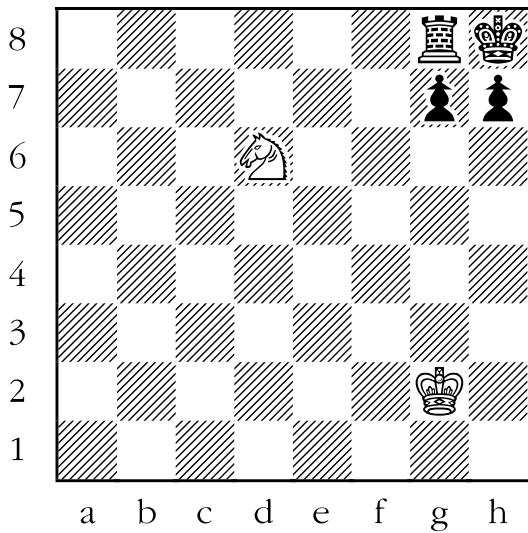


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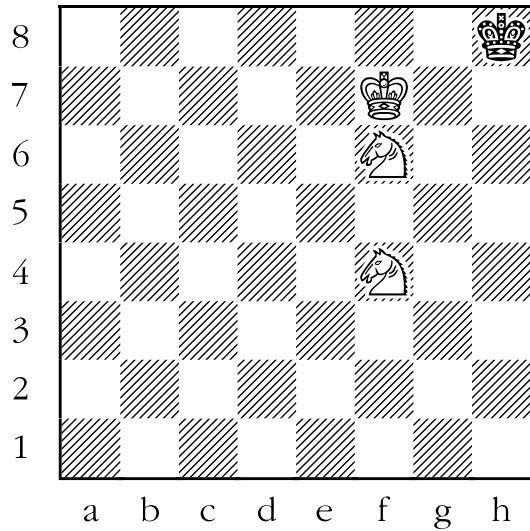


# Sheet 15-1: Checkmate with the Knight

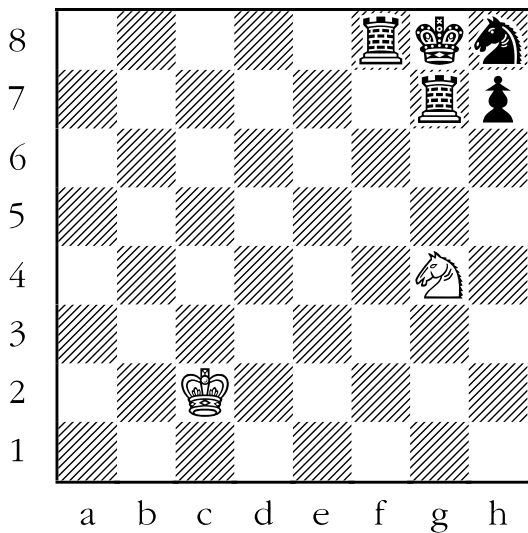
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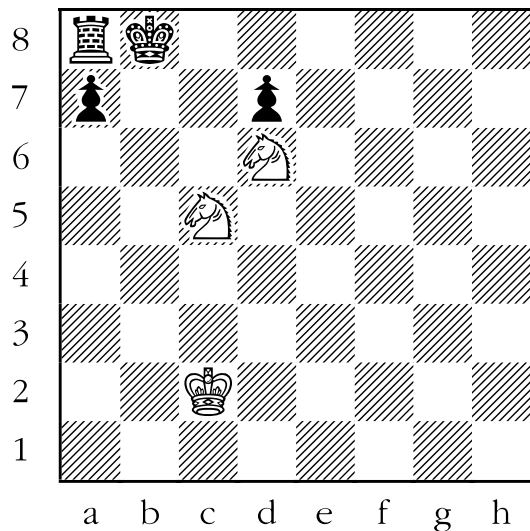
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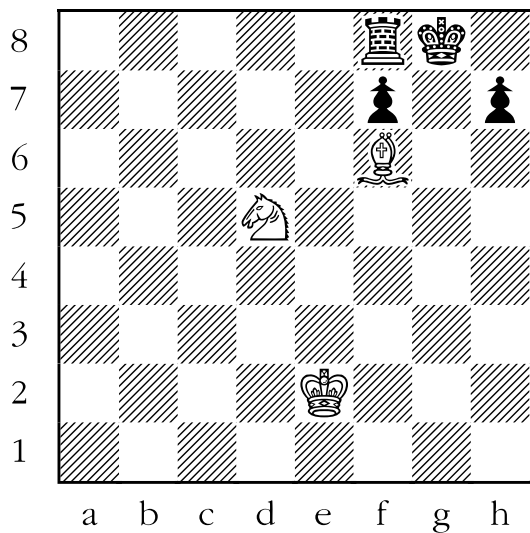


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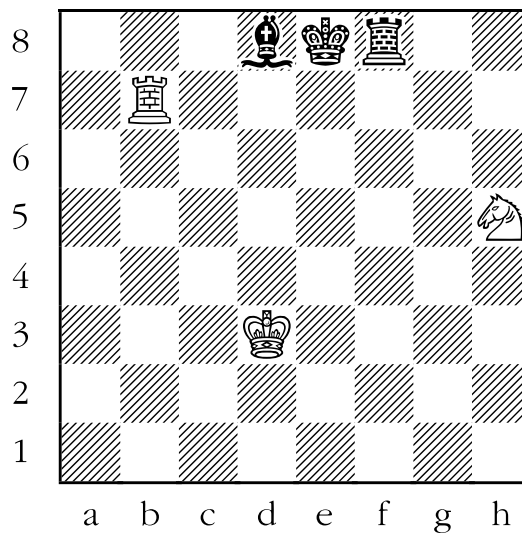


# Sheet 15-1: Checkmate with the Knight

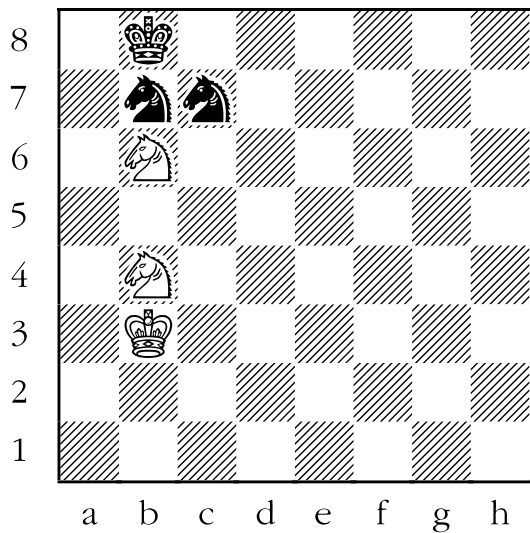
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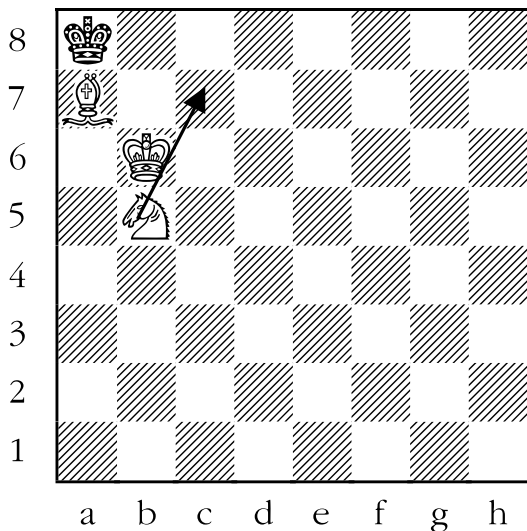


## Answer Sheet 15-1: Checkmate with the Knight

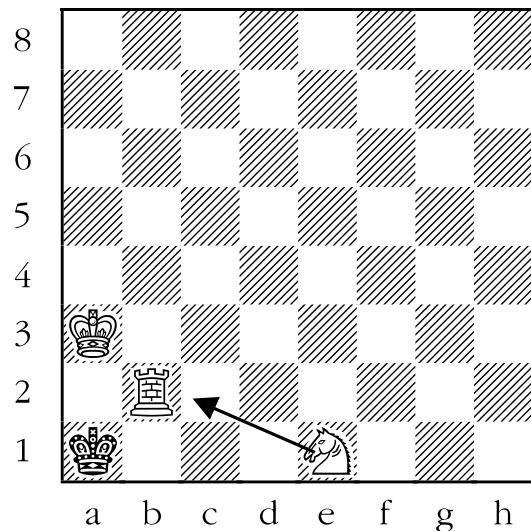
How does white checkmate black with a knight in one move? For each of the following diagrams draw an arrow to show how.

**1. ANSWER:** When in doubt, aim your knight as close to the opponent's king as possible. Here, white checkmates black by moving the knight to c7. The black king can't:

- move to b8 because the bishop is attacking that square.
- move to b7 because the white king is attacking that square.
- take the bishop because the white king is guarding it.

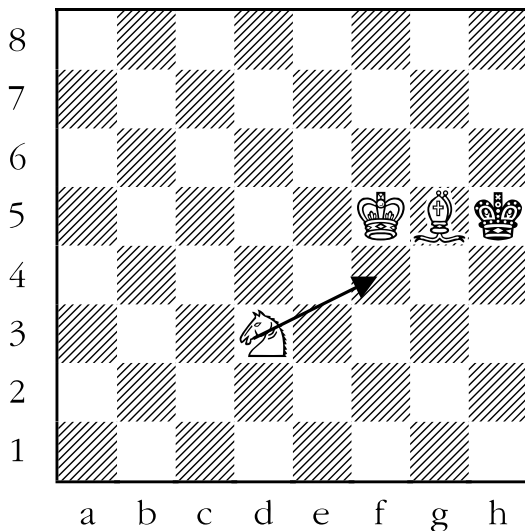


**2. ANSWER:** In the following example, the black king is trapped on the corner of the board. The white rook is preventing the king from escaping to b1. The knight has only to attack the black king for it to be in checkmate. The knight does this by moving to c2.



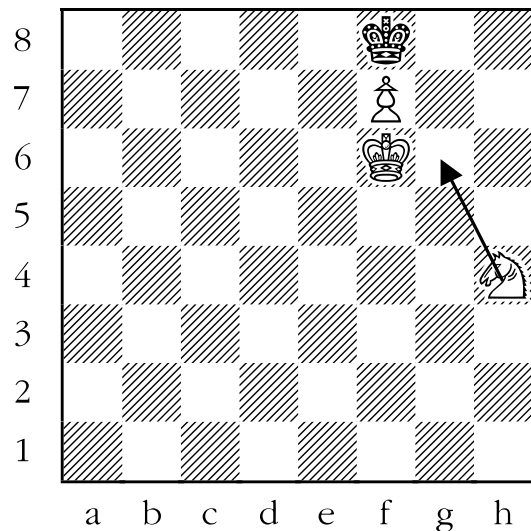
**3. ANSWER:** In the example below, the king is trapped on the side of the board. The white knight checkmates the king by moving to f4. The king can't:

- escape to h4 or h6 because the white bishop attacks those squares.
- escape to g4 or g6 because the white king controls those squares.
- take the bishop because the white king is defending it.

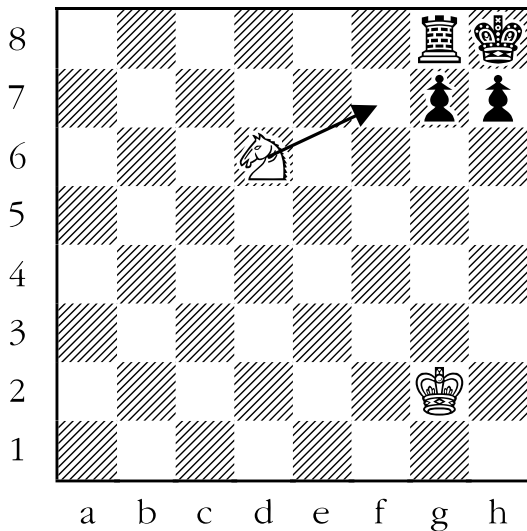


**4. ANSWER:** In this diagram the king is trapped on the edge of the board. The knight delivers checkmate by moving to g6. The black king can't:

- run to e8 or g8 because the pawn covers those squares.
- run to e7 or g7 because the white king covers those squares.
- take the pawn because the white king is guarding the pawn.

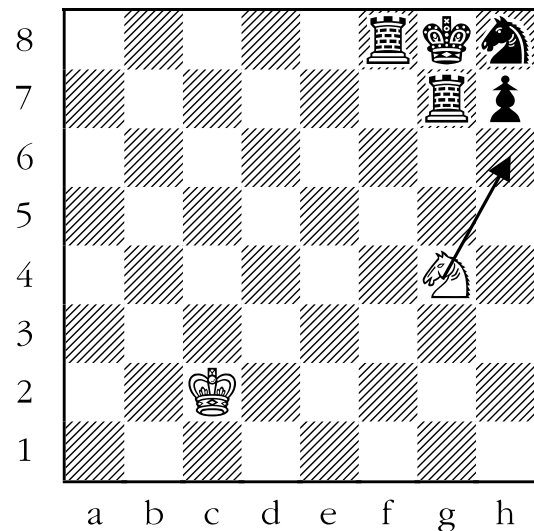


**5. ANSWER:** The following diagram is a sample “smothered mate”. The knight attacks the black king by moving to f7. None of the black pieces can take the knight. The king can’t escape because all of the surrounding squares are occupied by black pieces. The king is, figuratively, suffocated by his own team. Knights are very good at snaring unwary, seemingly safe kings in such a manner.



**6. ANSWER:** In the next diagram the white army is vastly outnumbered by its black counterparts. However, the white knight has two checks, one of which is checkmate. Let’s try the checks one at a time:

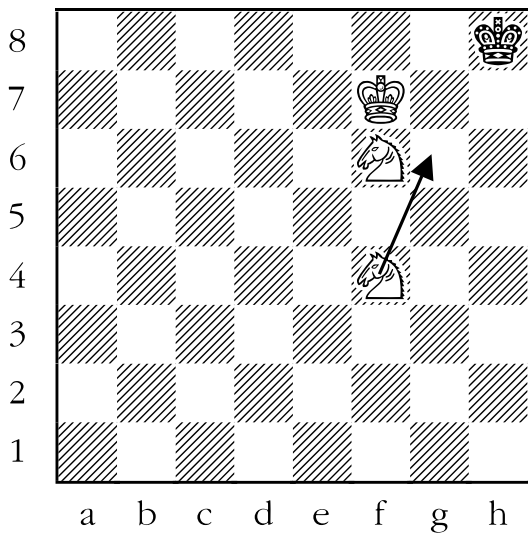
- 1) If white plays the knight to f6, the black king is in check, but not checkmate. The king can escape to f7, or even better, the black rook on f8 can take the knight.
- 2) The second check, moving the knight to h6, is much more profitable. None of the black pieces can take the knight, and the king’s only escape square, f7, is attacked by the white knight.



**7. ANSWER:** Two knights are on the board; which one delivers checkmate? Let's look at the relative usefulness of each knight in this position. The knight on f4 appears to be doing nothing at the moment. The knight on f6, on the other hand, is preventing the black king's escape via h7.

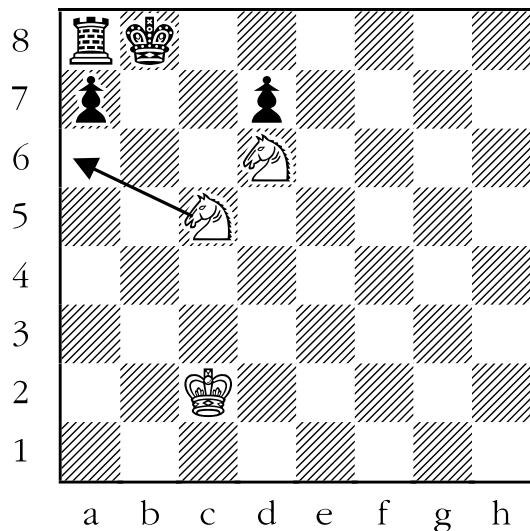
So, it is logical to suppose that the knight on f4 will be delivering checkmate. In fact, after moving the knight to g6, the black king would be checkmated. It can't move to:

- h7 because, as stated above, the knight on f6 is controlling that square.
- g7 because the white king is controlling that square.
- g8 because both the white knight on f6 and the white king control that square.

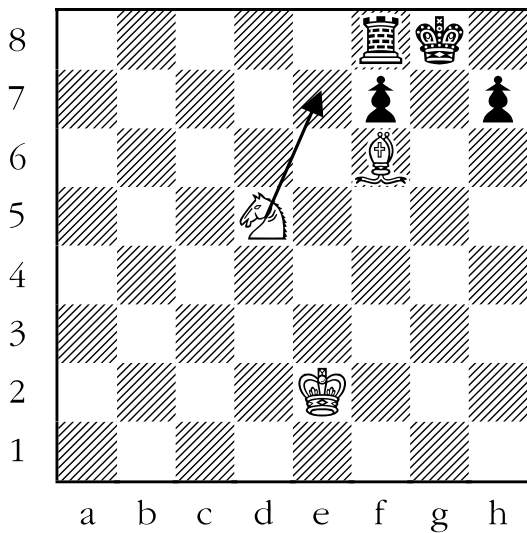


**8. ANSWER:** Once again there are two knights on the board, and both appear to be covering key squares around the black king. The knight on c5 is controlling b7, while the knight on d6 is controlling b7 and c8. If you think about it, there is no logical reason for the knights to be duplicating control of any specific square - the king can't go to any square attacked by an enemy piece, so it doesn't really matter how many pieces attack each flight square; one is enough.

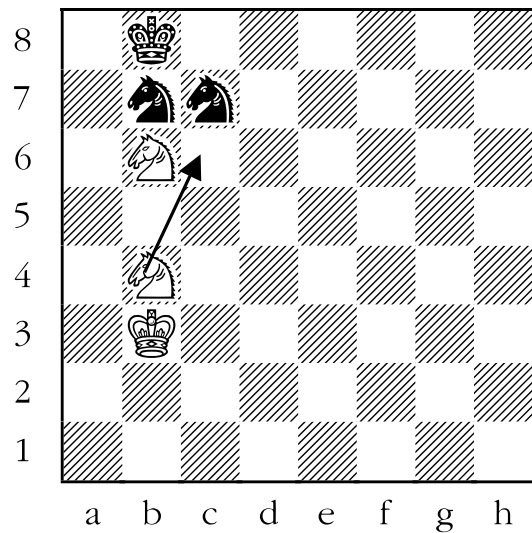
In this case, the knight on c5 is merely duplicating one of the functions of the knight on d6, control of the b7 square. So the knight on c5 is the one which will deliver the checkmate. Where should it go? The knight will also have to cover the black king's flight square of c7 and attack the king. Moving the knight to a6 accomplishes both objectives at the same time.



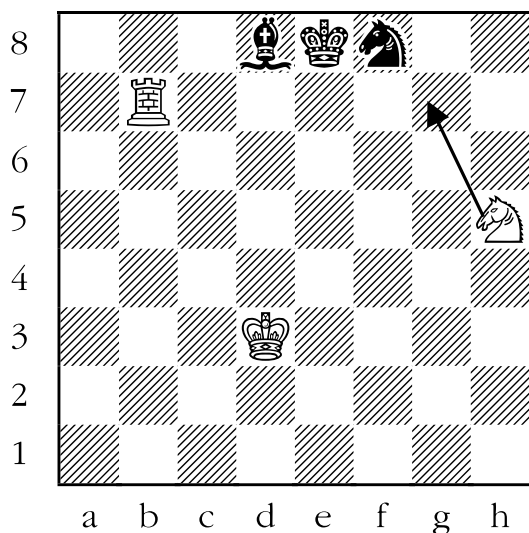
**9. ANSWER:** Below is an example of a bishop and knight cooperating to deliver checkmate. The winning move is to play the white knight to e7. The king is in check from the knight. None of the black pieces can take the knight. The black king can't run to either g7 or h8 because the bishop controls those squares. The other squares are off-limits to the black king because there are black pieces already occupying those squares.



**10. ANSWER:** The following diagram is funny looking position, with an amusing solution. White has two knights, but only one is doing anything useful at the moment. The knight on b6 is covering two possible escape squares of the black king, a8 and c8. The other knight's job is, therefore, to attack the black king and simultaneously cover the flight square on a7. Moving the knight to c6 accomplishes both of these tasks.



**11. ANSWER:** In this position, the black king is trapped on the edge of the board, and at the moment has no moves to escape from check. White has two places to move the knight to check the black king, but only one is checkmate. The two “candidate moves” (chess-speak for “choices”) for the white knight are to go to f6 or g7. Moving to f6 would be a big mistake, since the black bishop would take the knight. Moving the knight to g7, however, brings about checkmate.



# Lesson 16

## Take Free Pieces

### (Sheet 16-1)

**Objective:**

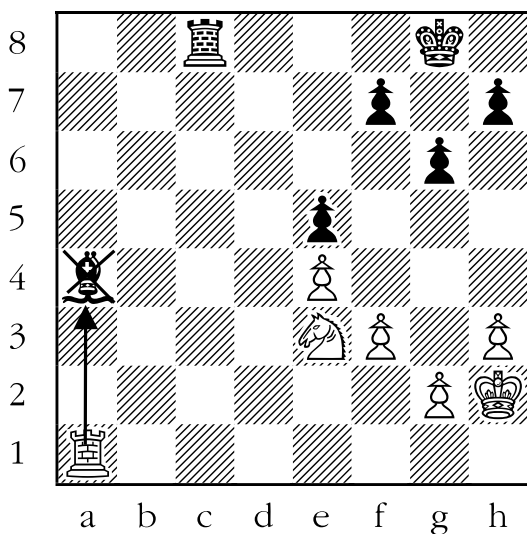
- Teach students to be on the lookout for free (or “hanging”) pieces.

**Skills Developed:**

- Observation.
- Discipline.

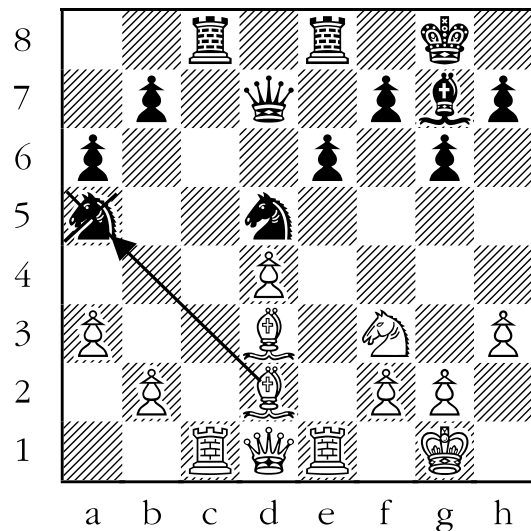
In order for a player to checkmate their opponent, it is necessary to have some type of advantage. A material advantage (having more, or more valuable, pieces than your opponent) is the most permanent type, and the easiest way to obtain a material advantage is to take the free (also known as “hanging”) pieces offered by the opposition.

The best way to maximize a player’s chances of locating and capturing free pieces is to use the process of elimination. Every time the opponent moves, look at each of your own pieces to see whether one of them can take the piece that just moved. After a while, the process will become almost automatic. Here we get to see the process in action:



In the diagram at the bottom of the previous column, black has just moved his bishop from d7 to a4. White stops and thinks for a moment. Which white piece can take the black bishop? Well, the pawns and king can immediately be dismissed - the bishop is just too far away. With a little experience, a player would learn to dismiss the white knight as a candidate, since the bishop is too far away as well. That leaves only the rook, which can take the bishop.

Let’s move on to a more complicated example:

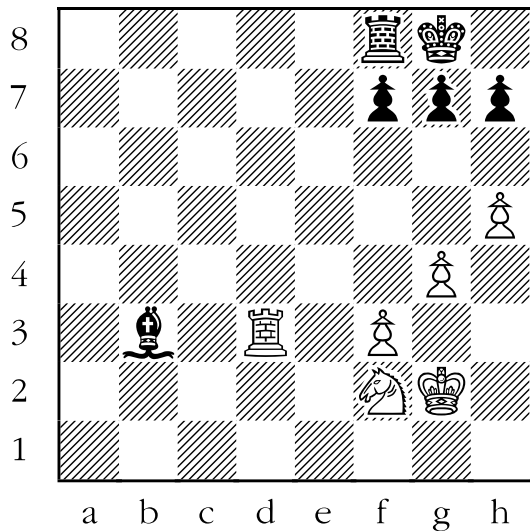


Here black has just moved his knight from c6 to a5. Which white piece can take the knight? The white pawns and king can be dismissed, since the knight is too far away. The white knight can be dismissed as well, since it also is too far away. That leaves the white rooks, bishops, and queen. Certainly the white bishop on d3 can be instantly eliminated, since it travels only on light squares, and the knight is on a dark square. The four remaining pieces would have to be eliminated, one by one. Hopefully, white would find that the bishop on d2 could indeed take the knight on a5.

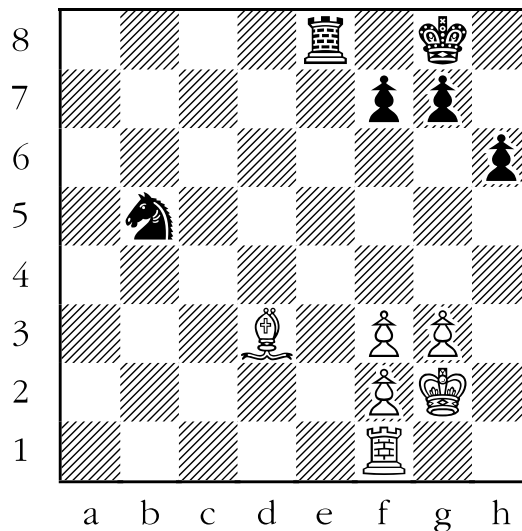
# Sheet 16-1: Take free pieces

For each of the following diagrams, draw an arrow to show how white can take a black piece for free.

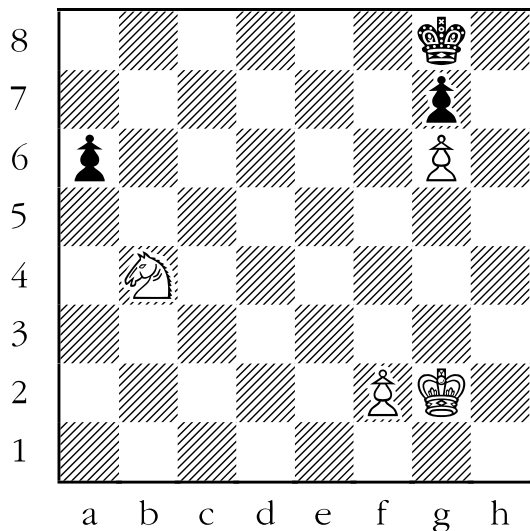
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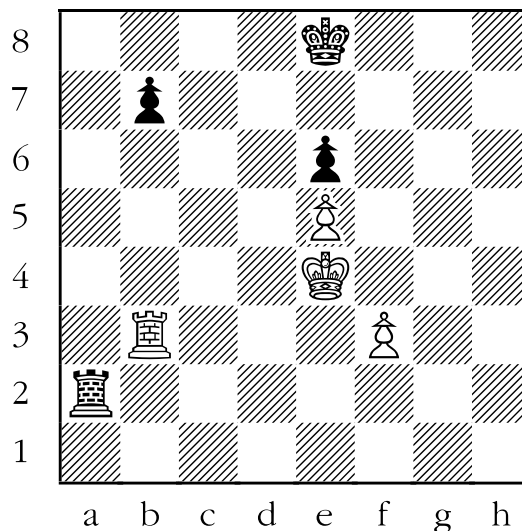
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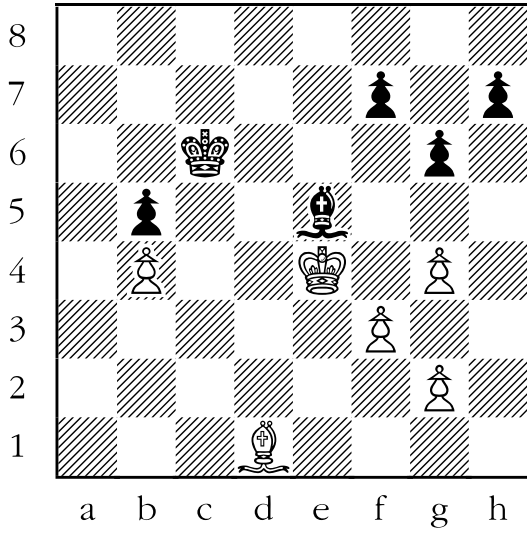


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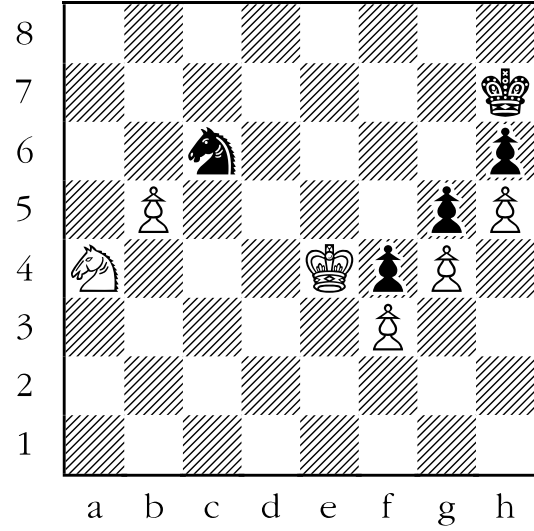


# Sheet 16-1: Take free pieces

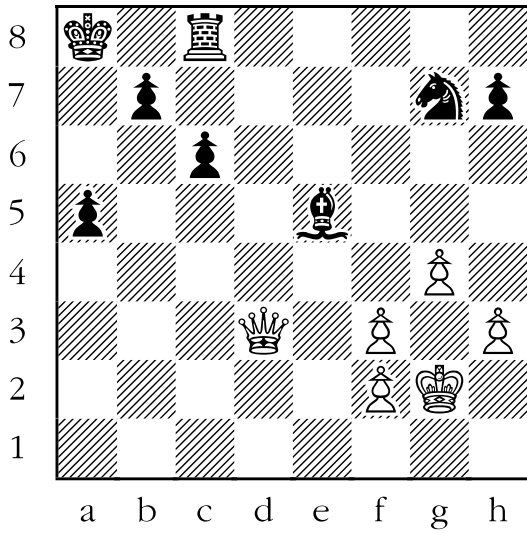
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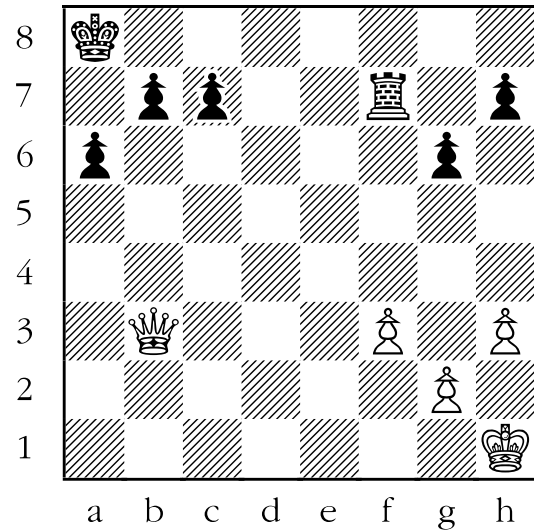
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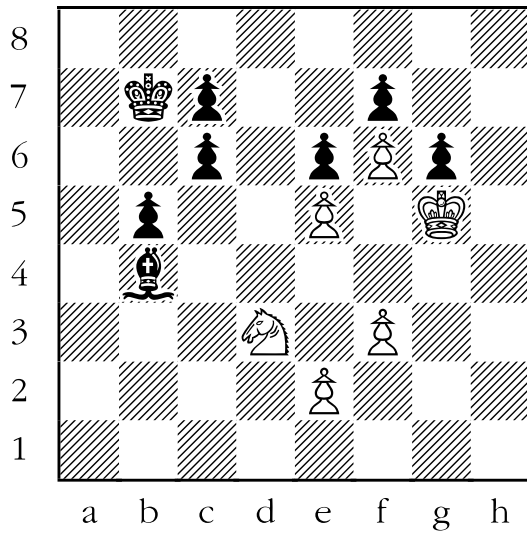


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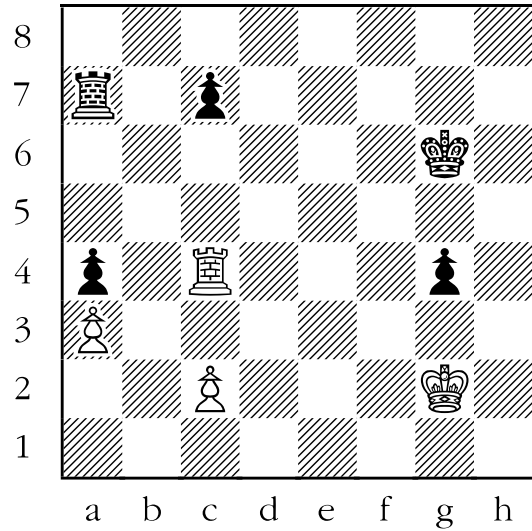


# Sheet 16-1: Take free pieces

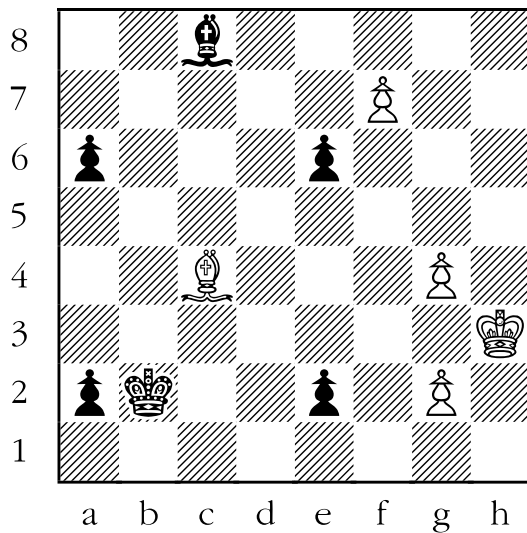
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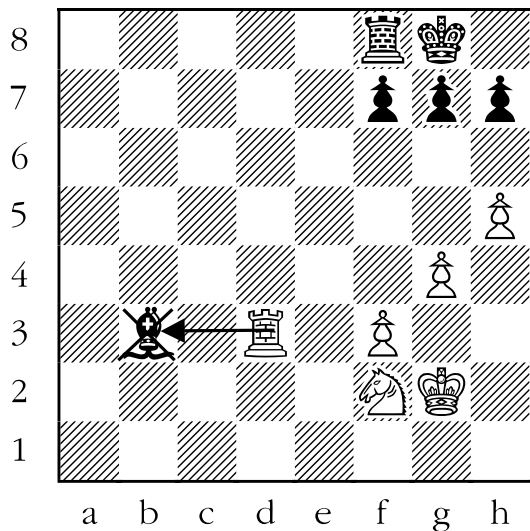


# Answer Sheet 16-1: Take free pieces

For each of the following diagrams, draw an arrow to show how white can take a black piece for free.

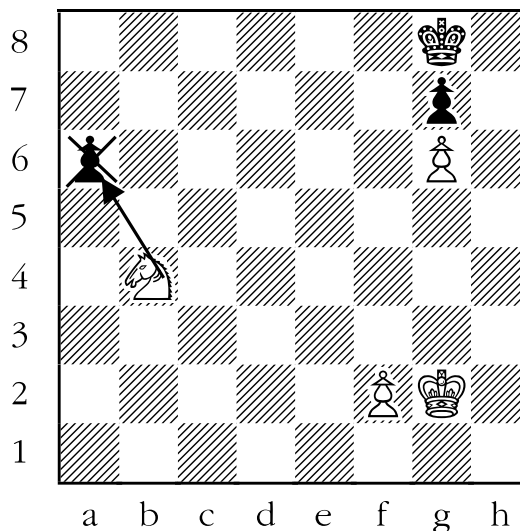
1. **ANSWER:** For an inexperienced player, determining whether a piece can be captured is done by process of elimination. Let's take the white pieces one at a time:

- The white knight is a short-range piece, and there are no black pieces in its vicinity.
- The same is true for the white king.
- None of the white pawns can capture anything.
- Only the white rook can capture something, the black bishop.



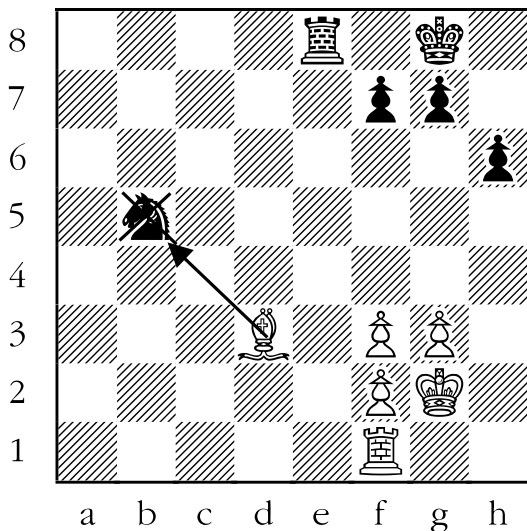
2. **ANSWER:** Once again, for this example, the process of elimination comes into play:

- The white pawn on g6 can't take the black pawn on g7, since pawns don't capture in that manner.
- The white king and the other white pawn are too far from any black piece to be able to take one.
- That leaves the white knight, which can take the black pawn on a6.



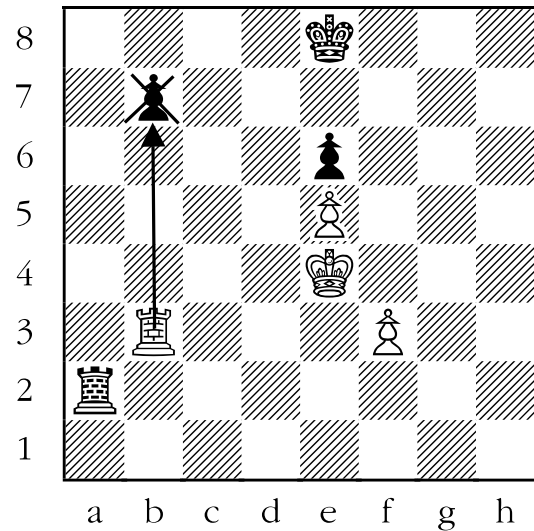
**3. ANSWER:** In this example:

- The white pawns and white king are too far from any black piece to capture one.
- The white rook is attacking all of the squares along the white first rank (row), but there aren't any black pieces there.
- That leaves the white bishop, which can take the black knight for free.



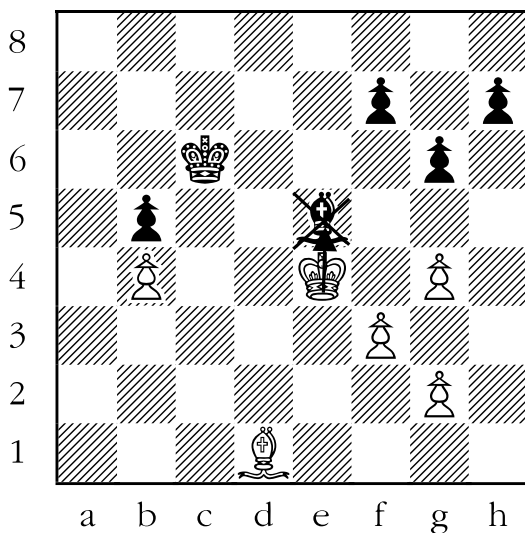
**4. ANSWER:** Here is another example:

- The white pawn on e5 can't take the black pawn on e6.
- The white king and pawn on f3 aren't close enough to any black piece to take one.
- That leaves the white rook. Rooks move and capture horizontally and vertically, so the black pawn on b7 can be captured.



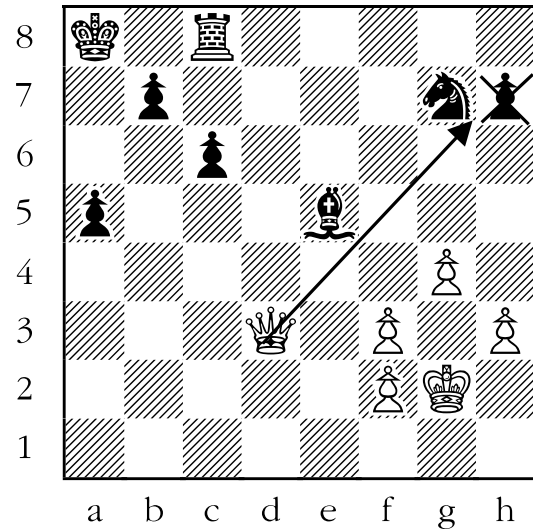
5. **ANSWER:** For the following diagram:

- The white pawn on b4 can't take the black pawn on b5 since pawns capture diagonally, not vertically.
- The white bishop can't capture any piece on this turn.
- The white pawns on the kingside (i.e. the pawns on g2, f3, and g4) can't capture any black piece.
- The only piece that can take a black piece is the white king, which can take the black bishop.



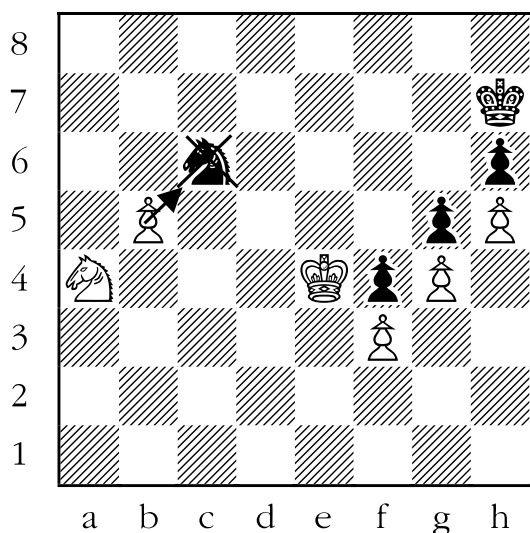
6. **ANSWER:** In this example:

- The white king and pawns are not close enough to take any black piece.
- That leaves the white queen, which can take the black pawn on h7.

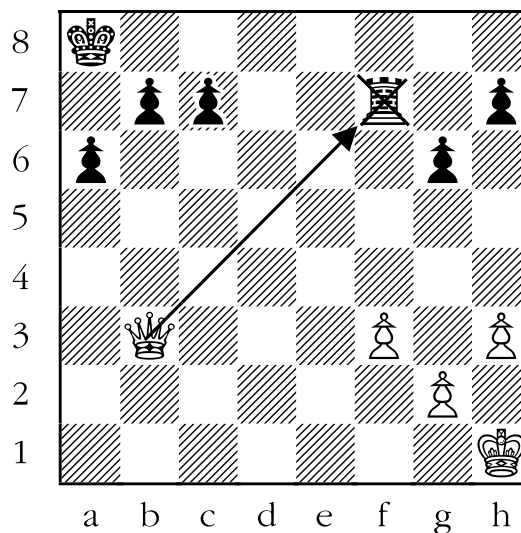


7. **ANSWER:** In this diagram:

- The white pawns on f3, g4, and h5 can't take the black pawns on f4, g5, and h4, since pawns only capture diagonally.
- The white king can't take the black pawn on f4, because it is guarded by the black pawn on g5.
- The white knight can't take the black knight, because knights don't move or capture that way.
- That leaves us with the white pawn on b5, which can capture the black knight.

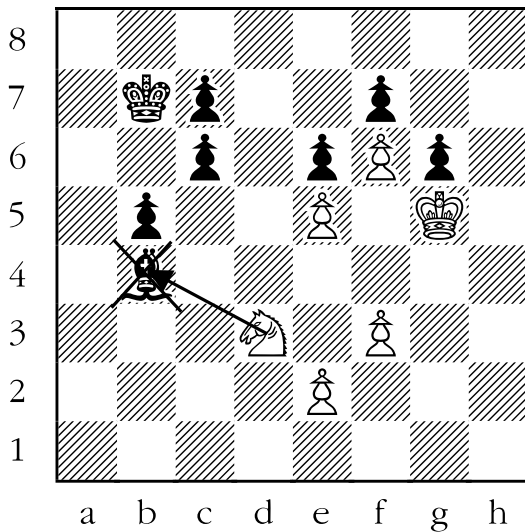


8. **ANSWER:** Seemingly, there are two potential answers to the diagram below. Can't the queen take either the black pawn on b7 or the black rook? Yes, but one of them isn't free. The black king guards the pawn on b7. If the queen takes the pawn on b7, the black king takes the queen. The black rook, though, is free. The black pawn on g6 can't recapture the queen because the pawn would be capturing backwards, which isn't allowed.



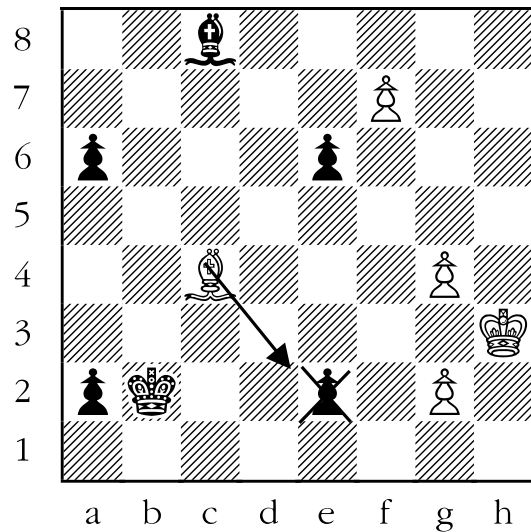
**9. ANSWER:** The examples are getting more complicated, but let's continue to use process of elimination:

- The white pawns on e5 and f6 can't take any of the nearby black pawns because none of them are located one square diagonally away.
- The other white pawns are too far away to capture any black piece.
- The white king can't take the black pawn on g6 because it is defended by the black pawn on f7.
- The knight is the only piece that can capture here; its victim is the black bishop.



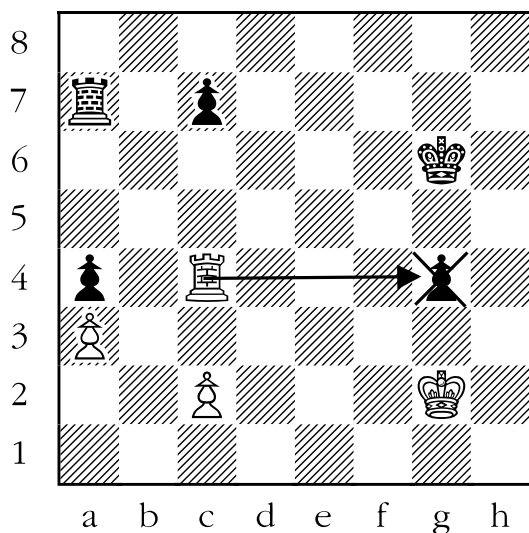
**10. ANSWER:** In this example:

- The white king can't take any black piece, as none are nearby.
- The white pawn on f7 can't take the black pawn on e6 because that would be moving backwards, which pawns can't legally do.
- The other white pawns are too far away from the black pieces to capture any.
- That leaves the white bishop, which has four pawns that it can take. The black bishop guards the pawns on a6 and e6. The black king guards the pawn on b2. Only the black pawn on e2 is free for the taking.



**11. ANSWER:** In this diagram:

- The white king can't take any black piece because they're too far away.
- The same is true for the white pawn on c2.
- The white pawn on a3 can't take the black pawn on a4 because pawns only capture diagonally.
- The white rook has a choice of three black pawns that it can capture. The black rook guards the pawns on a4 and c7, so they aren't free. The pawn on g4 isn't defended by anything, since the black king is too far away.



# Lesson 17

## The Point Count

### (Sheet 17-1)

#### Objective:

- Teach students the value of the pieces.
- Teach students how to use the “point count”.
- Teach students how to determine who has quantitatively and qualitatively more material (value of the chess pieces they have compared to their opponent’s).

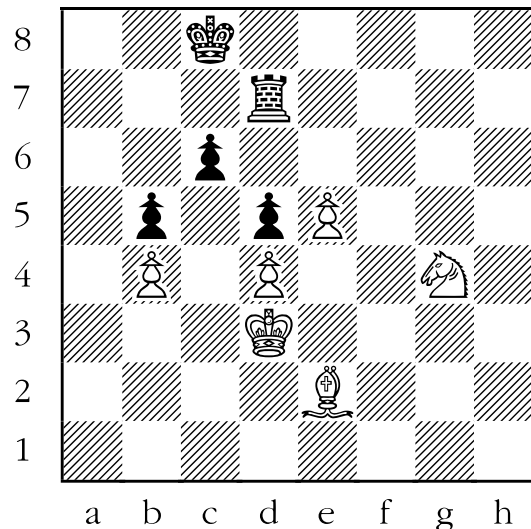
#### Skills Developed:

- Simple arithmetic (adding and subtracting).
- Identifying and grouping like objects together.

Who has the advantage? How can you tell? One of the criteria in determining which player is winning in a chess game is to figure out which one has more “material” (pieces). Not all pieces have the same value. To figure out who is winning, players use the “point count”. Here is a table of the average value of each piece on the chessboard:

- **King** = Zero, or infinity, or anything you want. Kings are not counted, since each side must have exactly one king if the game is legal.
- **Pawn** = 1
- **Knight** = 3
- **Bishop** = 3
- **Rook** = 5
- **Queen** = 9

This is all very nice, but how is this useful? Let’s take a typical chess position and break it down step by step.



The above diagram is a typical game nearing its end, and you are playing white. Neither side has much material, so it will be pretty easy to count. Here’s how it goes:

- White has a king, and black has a king. The two kings cancel out. This step can be skipped since the kings always cancel out.
- White has three pawns, while black has three pawns. The difference is zero, so we can ignore the pawns.
- White has a knight, while black doesn’t. Mentally score an extra knight for white.
- White has a bishop, while black doesn’t. Mentally score an extra bishop for white.
- Black has a rook, while white doesn’t. Mentally score an extra rook for black.

Next, in your mind, list all of the material imbalances that occurred in the above calculations. A material imbalance is simply a case where one player has more pieces of a particular type than the other player.

In the above example:

- White has a knight and a bishop, which black doesn't have.
- Black has a rook that white doesn't have.

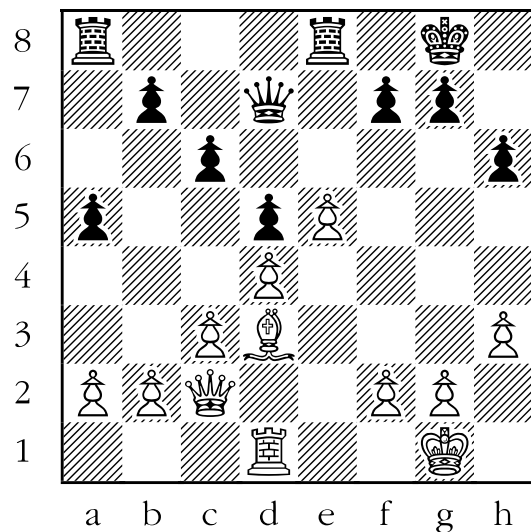
Now consult the table of piece values. From white's (that's your) perspective the extra knight is worth three points, and the extra bishop is also worth three points. You have six points that your opponent doesn't have.

Also from white's perspective, the extra rook that black has is worth five points.

You have six extra points that your opponent doesn't have. You lack five points that your opponent has. Six minus five is one. You have one extra point. Therefore, you are the equivalent of one pawn ahead.

This might seem like a lot of work, but with experience you will find that you will do all of this without realizing it!

Here's a slightly more complicated example.



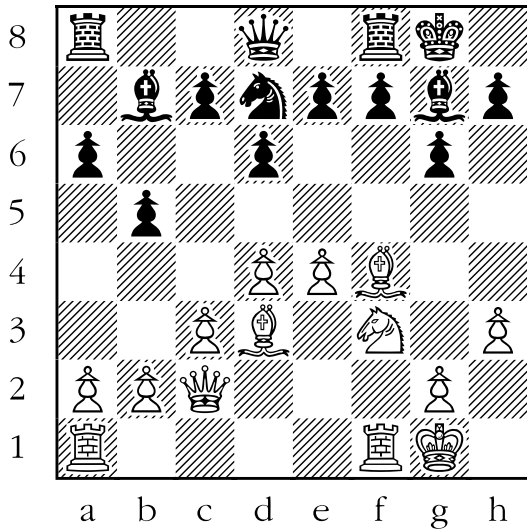
Let's go one step at a time. First we group like items together:

- White has eight pawns, while black has seven. White is ahead by a pawn.
- White has a bishop, while black doesn't. White is ahead by a bishop.
- White has a rook, but black has two of those. Effectively white is behind, or "down" by a rook.
- Both sides have a queen, so they cancel out.

The net effect, from white's perspective, is that white has a bishop and a pawn for a rook. Of course, from black's perspective, black has a rook for a pawn and a bishop.

Consulting the table of piece values is the next step. White has an extra pawn (worth one point), and an extra bishop (worth three points); but is behind by a rook (worth five points). Expressed in numbers, white has  $1 + 3 - 5 = -1$  points. White is behind by a point, or approximately a pawn.

One last example:



Who is ahead in material?

- White has seven pawns, while black has eight pawns. Black is ahead by a pawn.
- Both players have a knight, so they cancel out.
- Both players have two bishops, so they cancel out.
- Both players have two rooks, so they cancel out.
- Both players have a queen, so they cancel out.

Therefore, black is ahead by a pawn, or one point.

In the case above, some student is probably going to ask a question like, “Why can’t I just count the value of the pieces that have been captured, since it is way easier?” It is true, in this instance, that the only things that have been captured are a knight for each player, and one white pawn, which is indeed easier to count. But doing it this way has two problems.

First, players should pay attention to the pieces on the board, because that is where the action is. All of the pieces sitting off of the board should be ignored, since these pieces aren’t:

1. Going to be checkmating you (unlike your opponent’s pieces still on the board), or
2. Helping you deliver checkmate (unlike your pieces still on the board).

Perhaps a sports analogy would be appropriate:

*You wouldn’t spend your time watching the players sitting on the bench in a hockey game, but you would be wise to watch the players on the ice.*

The second reason is very practical. It is bad to count the captured pieces because, if you are playing on the floor, for example, with many boards (and captured chessmen) all around you, it is quite likely that you will count someone else’s chess pieces and get the wrong idea as to who is winning. This happens to unsuspecting players all of the time. Don’t let it happen to your students.

# Sheet 17-1: The Point Count

For the following diagrams figure out how many points white is ahead or behind. Write down the number.

King ♔ = 0 Points

Queen ♕ = 9 Points

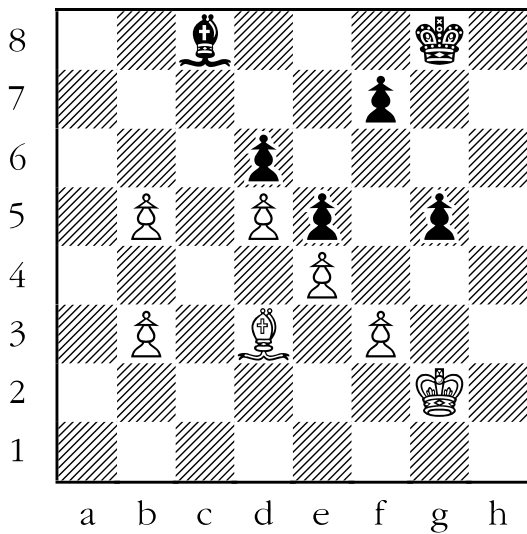
Rook ♖ = 5 Points

Knight ♞ = 3 Points

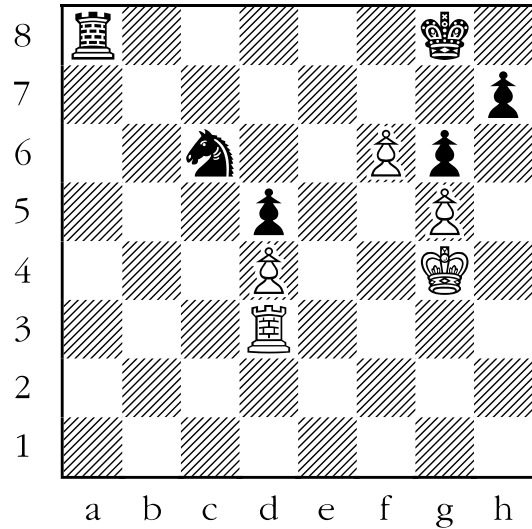
Bishop ♗ = 3 Points

Pawn ♙ = 1 Point

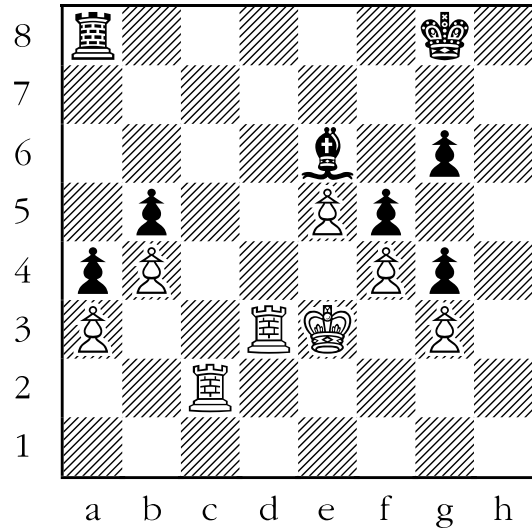
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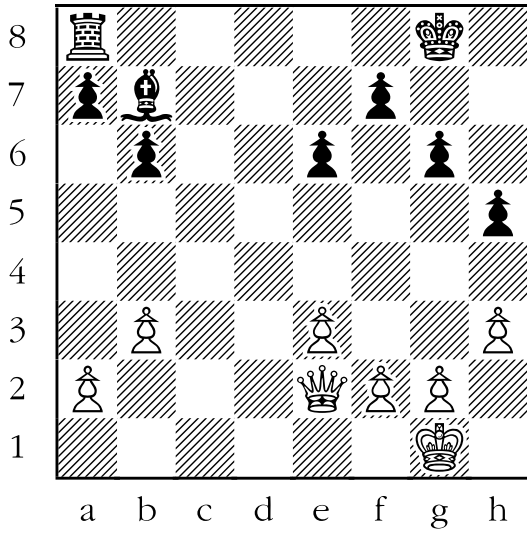


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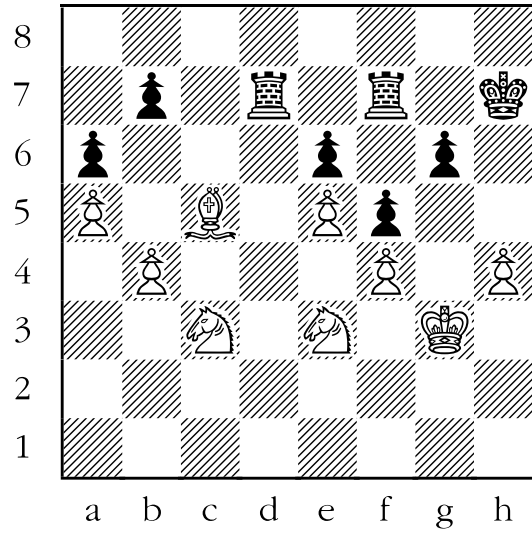


# Sheet 17-1: The Point Count

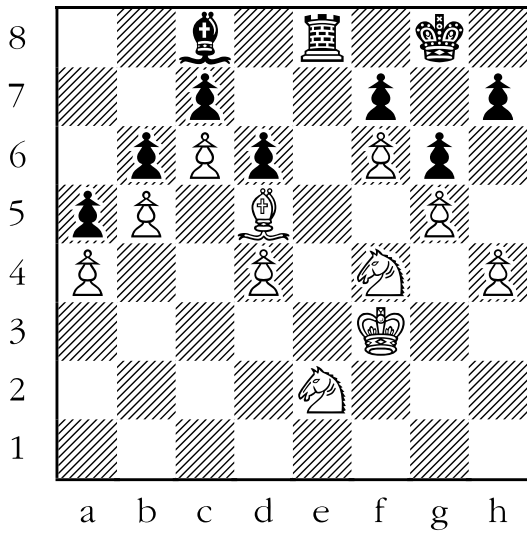
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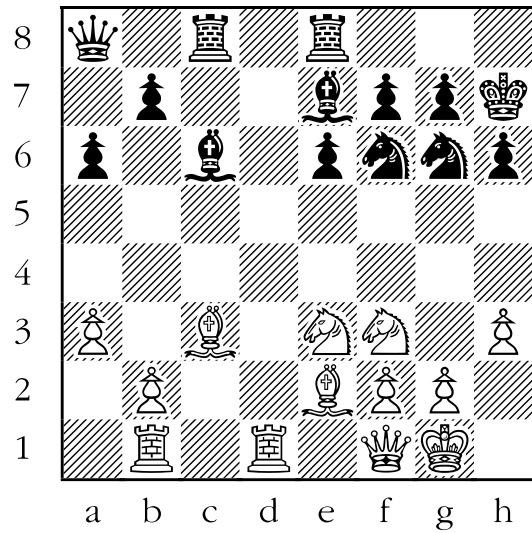
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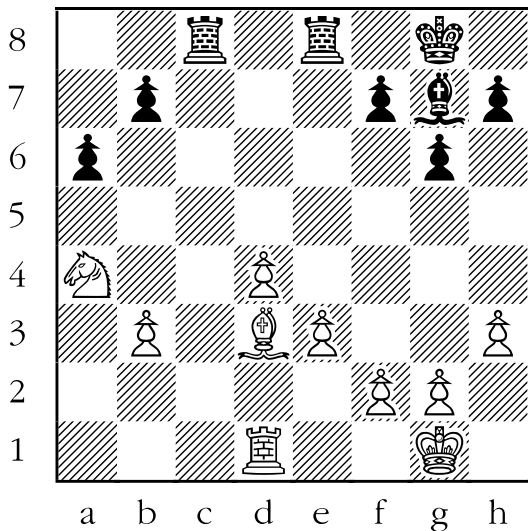


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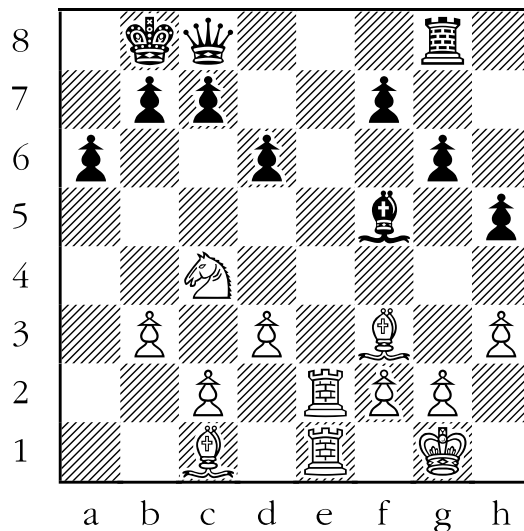


# Sheet 17-1: The Point Count

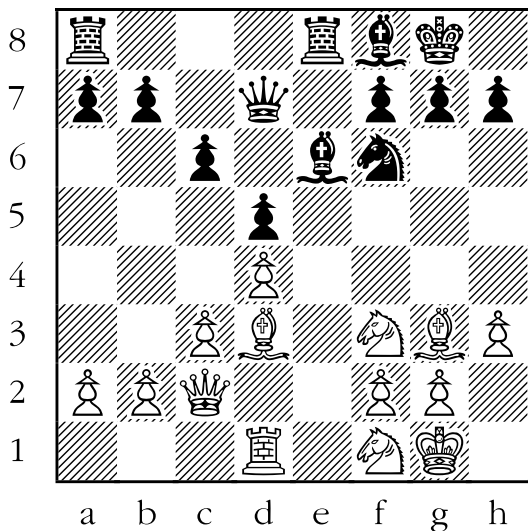
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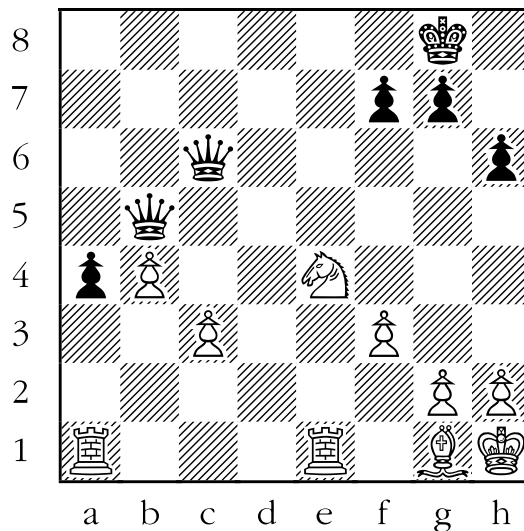
10.



9.



11.



# Answer Sheet 17-1: The Point Count

For the following diagrams, figure out how many points white is ahead or behind. Write down the number.

King ♔ = 0 Points

Pawn ♙ = 1 Point

Knight ♘ = 3 Points

Bishop ♗ = 3 Points

Rook ♖ = 5 Points

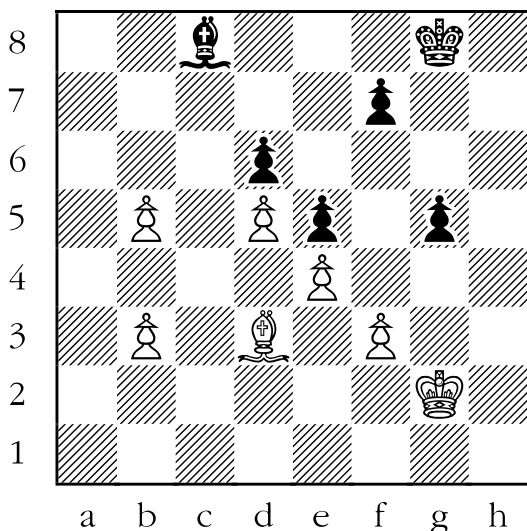
Queen ♕ = 9 Points

**1. ANSWER:** Let's take each type of piece one at a time. We don't count kings because you have to have one each to play a proper game.

- White has five pawns, while black has only four pawns. So white has an extra pawn.
- Each side has a bishop, so they cancel each other out.

Therefore the material imbalance is one pawn more for white.

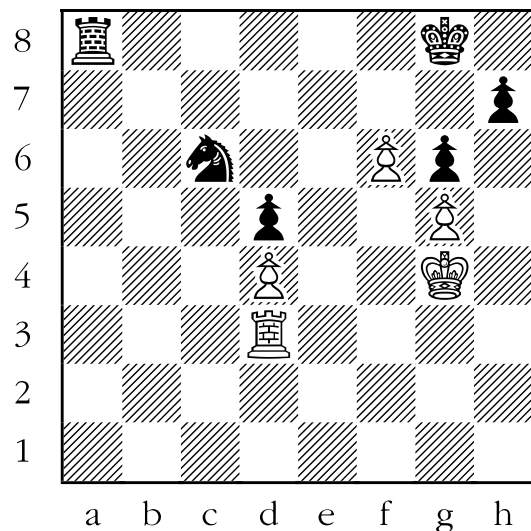
One pawn is worth (on average) one point, so it would be fair to say that **white is ahead by a point.**



**2. ANSWER:** Again, taking each type of piece one at a time:

- Each side has three pawns, so they cancel out.
- Black has a knight; white does not.
- Each side has a rook, so they too cancel out.

The material imbalance in this instance is one knight more for black. Knights are worth (on average) three points, so **white is behind by three points.**

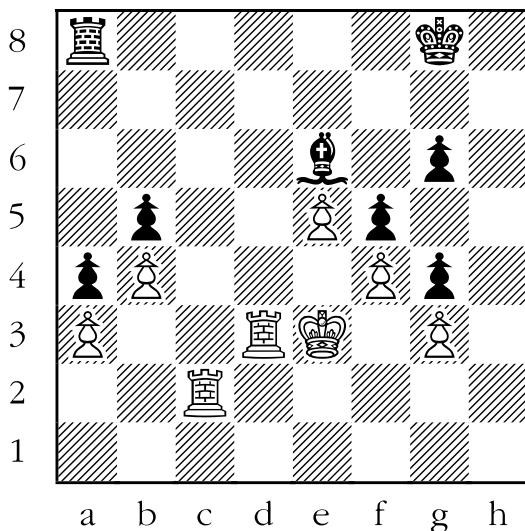


**3. ANSWER:** From the diagram below, taking one type of piece at a time:

- White has five pawns, and so does black. They cancel out.
- Black has a bishop, while white does not. Therefore black is ahead by a bishop.
- White has two rooks, while black has only one, so white is ahead by a rook.

The material imbalance in this position is one rook for one bishop in white's favour.

Since rooks are worth five points, while bishops are worth three points, **white is ahead by two points.**

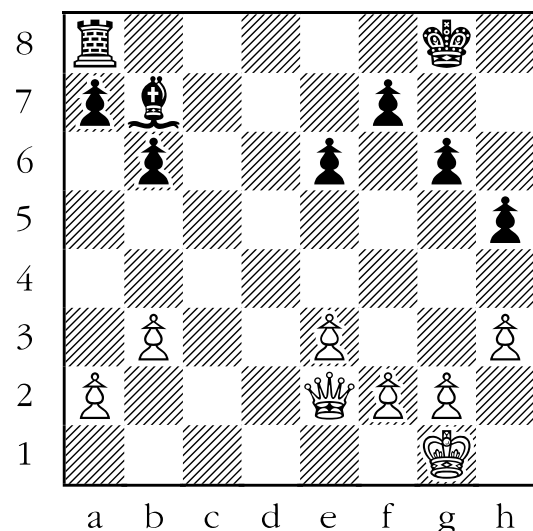


**4. ANSWER:** From this diagram, we group similar pieces:

- White has six pawns, and so does black. They cancel out.
- Black has one bishop to white's none.
- Black has one rook to white's none.
- White has one queen to black's none.

The material imbalance is one extra queen for white to an extra rook and bishop for black.

A queen is worth nine points, while a rook (five points) plus a bishop (three points) are worth a total of eight points. It would be accurate to say that **white is ahead by a point.**

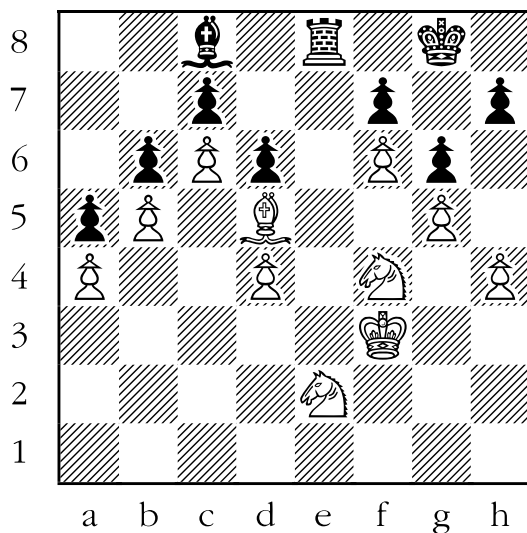


**5. ANSWER:** From the diagram below we see that:

- Each side has seven pawns.
- White has two knights to black's none.
- Both sides have a bishop.
- Black has one rook to white's none.

The material imbalance is two knights for white to a rook for black.

Knights are worth three points apiece, while rooks are worth five points. White is ahead by six points to five, so **White is ahead by one point.**

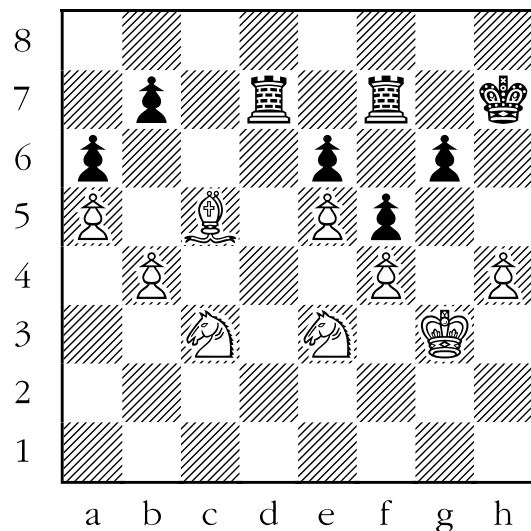


**6. ANSWER:** From the diagram below we group pieces of the same type:

- Each player has five pawns.
- White has two knights to black's none.
- White has one bishop to black's none.
- Black has two rooks to white's none.

The material imbalance in this position is two knights and a bishop for white to two rooks for black.

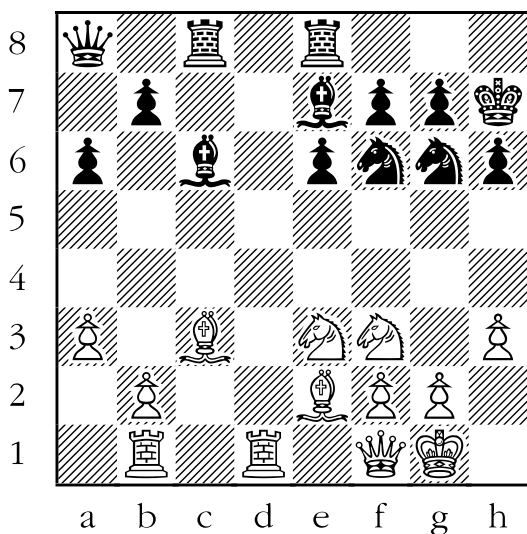
Knights and bishops are worth three points each, so white has nine points. Rooks are worth five points each, so black has ten points. Therefore **white is behind by a point.**



**7. ANSWER:** From the diagram below, we begin by grouping the pieces of the same type:

- White has five pawns; black has six. Black is ahead by a pawn.
- Both players have two knights, so they cancel out.
- Both players have two bishops, so they cancel out.
- Both players have two rooks, so they cancel out.
- Both players have a queen, so they too cancel out.

The material imbalance is one extra pawn for black. **White is down (behind) by a point.**

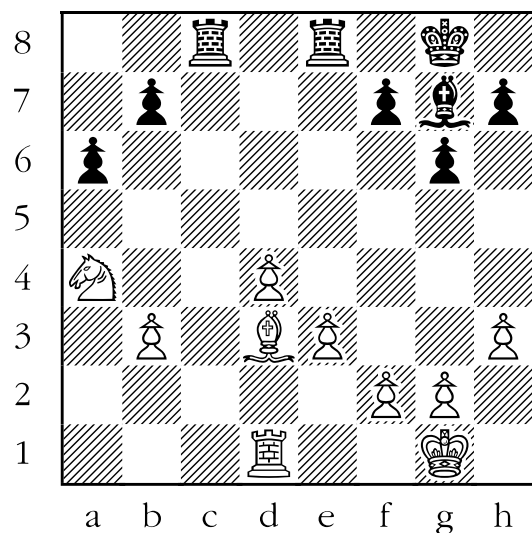


**8. ANSWER:** We begin from the diagram grouping similar pieces:

- White has six pawns to black's five, so white has an extra pawn.
- White has a knight, while black doesn't.
- Both players have a bishop.
- Black has two rooks, while white has only one, so black has an extra rook.

The material imbalance is one pawn and one knight for white, while black has one rook.

Since a pawn plus a knight is worth four points, while a rook is worth five points, **white is behind by a point.**

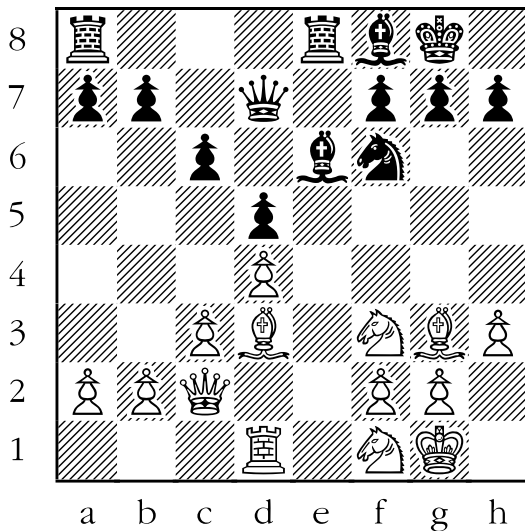


**9. ANSWER:** From the diagram below, we see that:

- Each side has seven pawns.
- White has two knights, while black has one.
- Both sides have two bishops, so they cancel out.
- Black has two rooks to white's one.
- Both sides have a queen, so they too cancel out.

The material imbalance is one knight for white to one rook to black.

Since knights are worth three points, while rooks are worth five, **white is trailing (behind) by two points.**

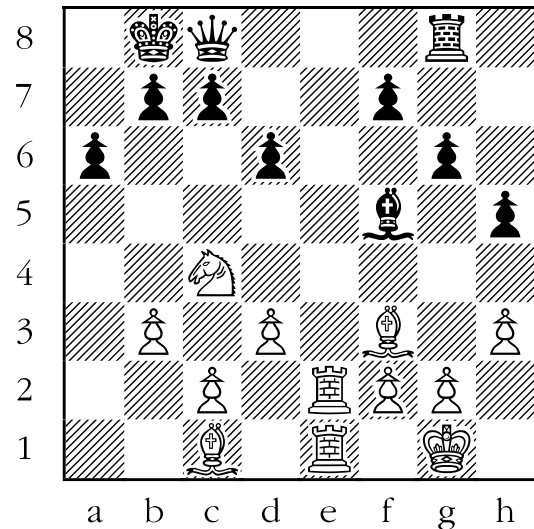


**10. ANSWER:** A very complicated position, but we continue to do the same type of grouping:

- White has six pawns, while black has seven. Black has an extra pawn.
- White has a knight, while black has none. White has an extra knight.
- White has two bishops, while black has one. White has an extra bishop.
- White has two rooks, while black has one. White has an extra rook.
- Black has a queen, while white has none. Black has an extra queen.

The material imbalance is a knight, bishop, and rook for white to a pawn and queen for black.

That makes it eleven (3+3+5) points for white to ten (1+9) points for black. **White is ahead by a point.**

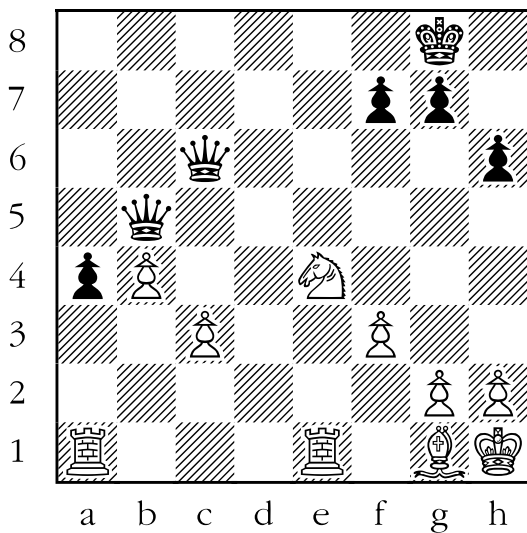


**11. ANSWER:** This is about as complex as one could reasonably expect to find in a chess game. If the student gets this one correct, then they are as good at this as a tournament chess player.

- White has five pawns, while black has four. White is “up” (ahead by) one pawn.
- White has a knight, while black doesn’t.
- White has a bishop, while black doesn’t.
- White has two rooks, while black has none.
- Black has two queens, while white has none.

The material imbalance is a pawn, knight, bishop, and two rooks for white to two queens for black.

That makes it seventeen (1+3+3+5+5) points for white to eighteen (9+9) points for black. **White is behind by about the value of a pawn, or one point.**



# Lesson 18

## Attacking and Defending

### (Sheet 18-1)

#### Objective:

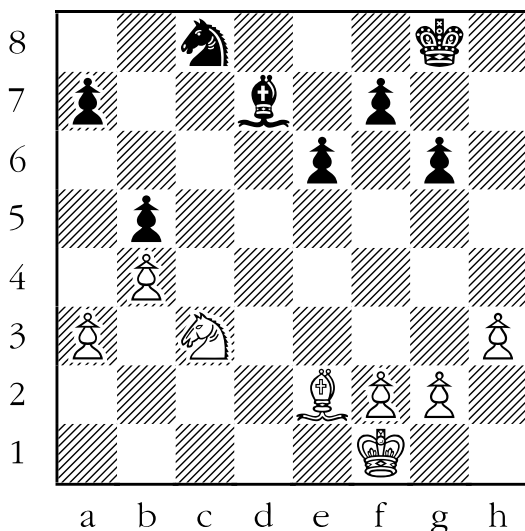
- Teach students how to determine whether a particular trade is good or bad.

#### Skills Developed:

- A better understanding of transactions and trades.

From the last two lessons, we know the value of the pieces and we know to take pieces that aren't defended. But what about trades? How can one figure out whether a trade is good or bad?

A certain amount of visualization is necessary. You can't hope to win if you don't at least try to predict the future course of the game, and because of the forcing nature of trading it's a good place to start. Here is a simple example of trading. White is wondering whether it is a good idea to take the black pawn on b5. Is it?



Let's do a bit of visualizing. The first thing we should do is mentally make a list all of the white pieces that can take the black pawn:

- the white knight
- the white bishop

Then make a list of all of the pieces that can defend the pawn:

- the black bishop

*In the vast majority of cases, it is best to begin the capturing with the least valuable piece first, and the most valuable piece last.*

In this case, both the bishop and knight are worth about three points, so we can begin with either.

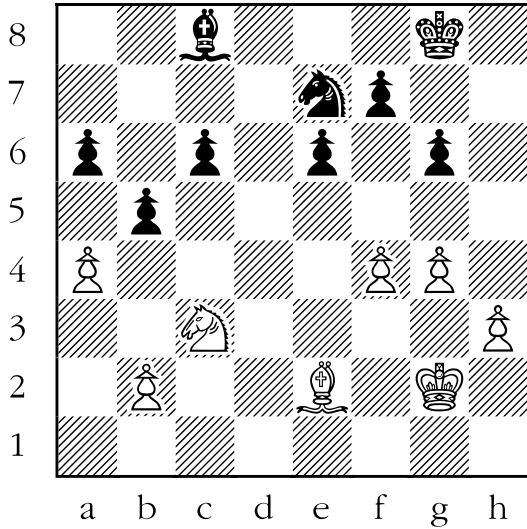
Let's say we decide to calculate capturing with the knight first. Here is what could happen:

- white takes the black pawn with the knight
- black could take the knight with the bishop
- white could then take the bishop with the bishop

There are no other captures possible. We total the gains and losses. White has won (captured) a bishop (worth three points) and a pawn (worth one point), for a total of four points. White has lost a knight (worth three points). In total he has netted a point. This looks like a good trade.

Only now would the player physically move the knight and take the pawn.

Let's go to another example:



You are white, and you are wondering whether it would be wise to trade on b5. First, you make a mental list of all of the white pieces that can attack the pawn on b5, from least valuable to most valuable:

- the pawn on a4
- the knight
- the bishop

Then mentally make a list of all of the black pieces that are defending the pawn on b5, again from least valuable to most valuable:

- the pawn on a6
- the pawn on c6 (in either order)

**Now let the mental trading begin.**

White visualizes taking the pawn on b5 with the pawn on a4. Black recaptures with the pawn on a6. So far the trade is even (each side has captured a pawn), and white could stop here if she figured further trading was bad.

White further visualizes taking the pawn on b5 with the knight. Black responds by taking the knight with the pawn on c6. White is down two points now, having given up a knight (worth three points) for a pawn (worth one point). White completes

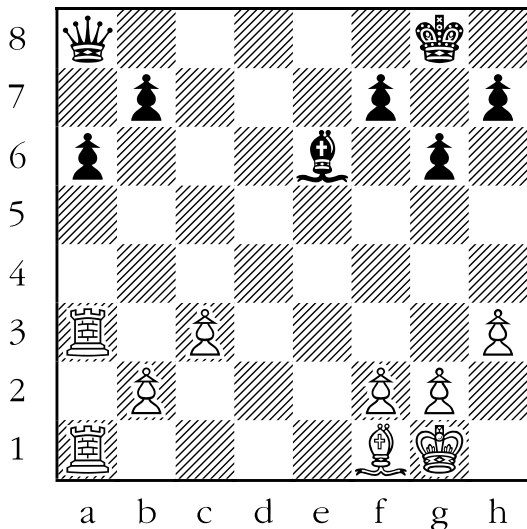
the capturing sequence by taking the black pawn on b5 (gaining another point). After all of the trades, white is down a point.

You could then mentally verify the calculations by listing all of the pieces that have disappeared from the board for both sides. White is missing his knight and pawn on a4. Black is missing the three pawns on a6, b5, and c6. White has captured three pawns (worth three points), and lost a pawn and a knight (worth four points). So if white trades everything possible on b5, he loses a point.

Should white take the pawn on b5 with the pawn on a4? That is not so easy to say, but it is fair to say that if white chose to trade pawns on b5, he would be in error in making the further trade of knight for two pawns.

Perhaps surprisingly, you will find that with practice you can perform more elaborate mental calculations at the chess board in less time than it took to read the last two paragraphs.

For one final warning on determining whether a particular trade is good or bad, see below:



White is deciding whether to take the pawn on a6. He makes a list of the attackers of the pawn in order from the least valuable to the most valuable:

- the white bishop
- the white rook on a3
- the white rook on a1

Then he makes a list of black defenders from the least valuable to the most valuable:

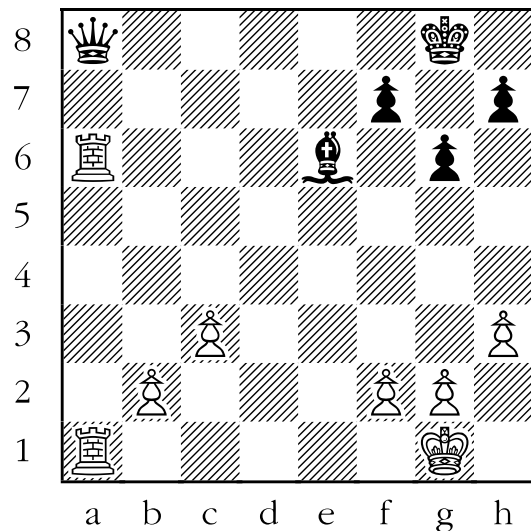
- the black pawn on b7
- the black queen.

At this point white begins trading in his head:

1. White takes the pawn on a6 with the bishop (gaining one point).
2. Black takes the bishop with the pawn on b7 (gaining three points).
3. White takes the pawn on a6 (which used to be on b7, but which moved to a6 when it captured the bishop) with the rook on a3 (gaining one point).
4. Black takes the rook on a6 with the queen (gaining five points).
5. White takes the queen on a6 with the rook on a1 (gaining nine points).

White counts the material won: two pawns (worth one point each) and a queen (worth nine points). White counts the material lost: a bishop (worth three points) and a rook (worth five points). It looks like this is a good trade for white.

But it isn't. Let's back up to the capturing sequence to just after point 3 on our list in the previous column. We get this position:



In this diagram, black is not obliged to take the white rook, and in fact would win a bishop for two pawns if he just moves his queen out of the way of the white rooks, thereby ending the trading sequence at this point. *Remember that the opponent is not obliged to take your pieces just because it is legal for him to do so.*

**A real-life analogy might make the above rather technical explanation clearer:**

*Let's suppose you went shopping at the grocery store and you saw two signs side-by-side. On the first sign you read: Bread for sale \$.50. On the second sign you read: Butter for sale \$5.00. The store manager has calculated that the loss on the purchase of bread (which cost \$.75 to make) will be more than compensated for by the profit on the butter (which cost \$1.50 to make).*

*The problem with the above approach is that the manager might find out that consumers purchase the bread, but purchase the butter elsewhere, and the store loses money. Like our fictitious store manager, chess players will often find that although they offer a whole range of tempting "merchandise" (i.e. pieces), their opponents will only "purchase" (i.e. capture) the best buys. In the previous diagram, black bought the bread (winning a bishop for two pawns), but didn't buy the butter (winning a rook for a queen).*

In summary, the way to determine if a trade is good or bad is to do the following:

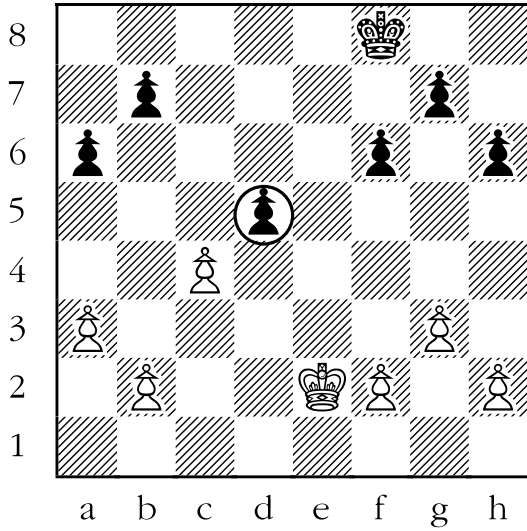
1. Make a list in your head of all of the attacking pieces from the least valuable to the most valuable.
2. Make a list in your head of all of the defending pieces from the least valuable to the most valuable.
3. Begin the sequence of captures in your head from least valuable to most valuable for both sides. Remember that either side can break off the sequence at any time.
4. After each of your captures, see whether you are ahead, behind, or tied. If you are behind, then be careful that your opponent can't break off the sequence, and win material.
5. After the final capture, see whether you are ahead, behind, or tied.
6. If everything looks okay, then, and only then, make the move on the chessboard.

Good trading.

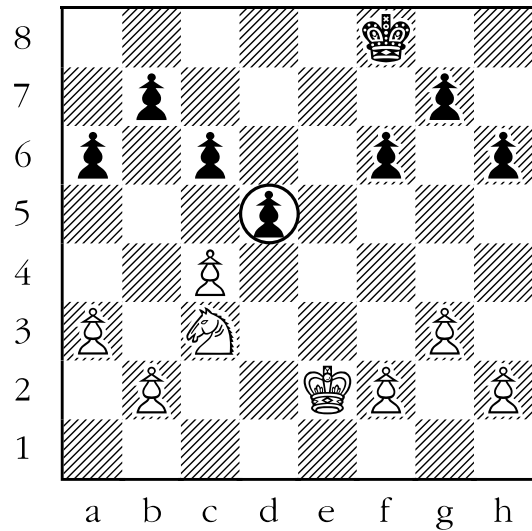
# Sheet 18-1: Attacking and Defending

In the following diagrams, does white win material if she takes the circled piece? If yes, how many points is she ahead?

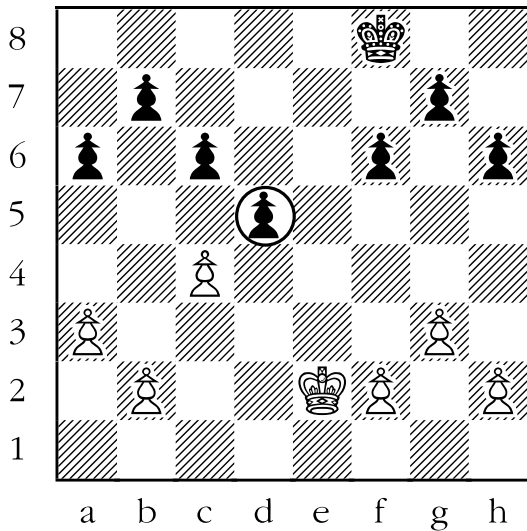
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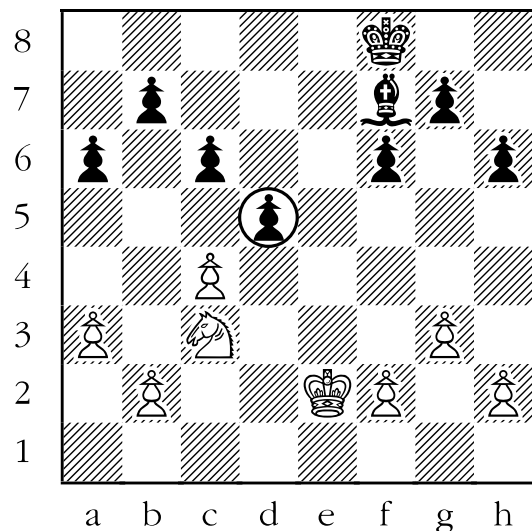
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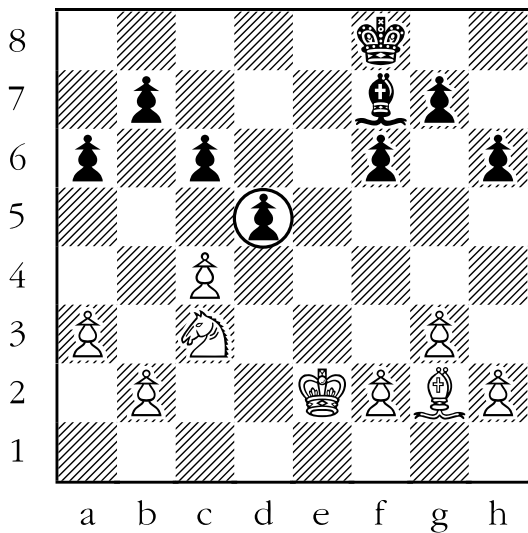


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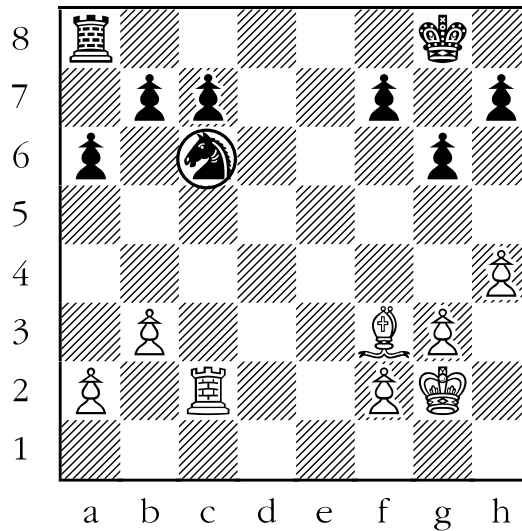


# Sheet 18-1: Attacking and Defending

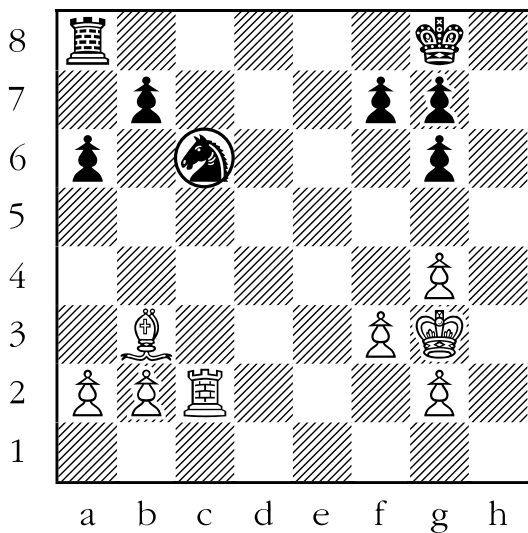
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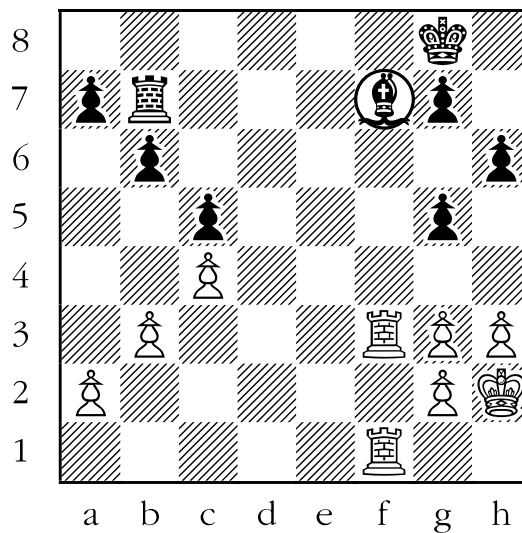
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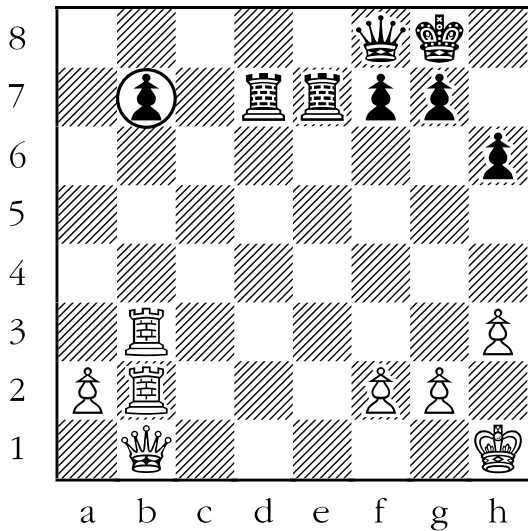


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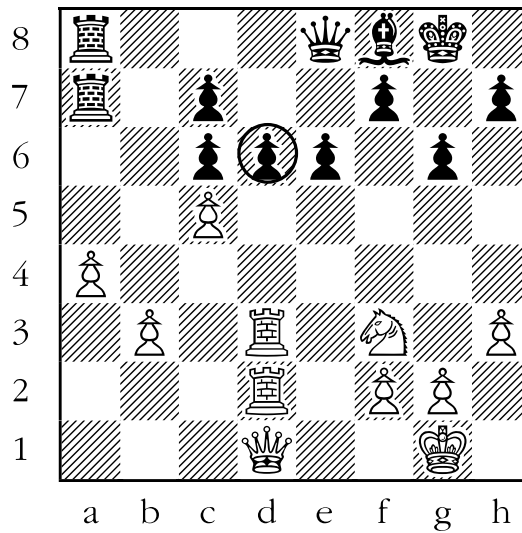


# Sheet 18-1: Attacking and Defending

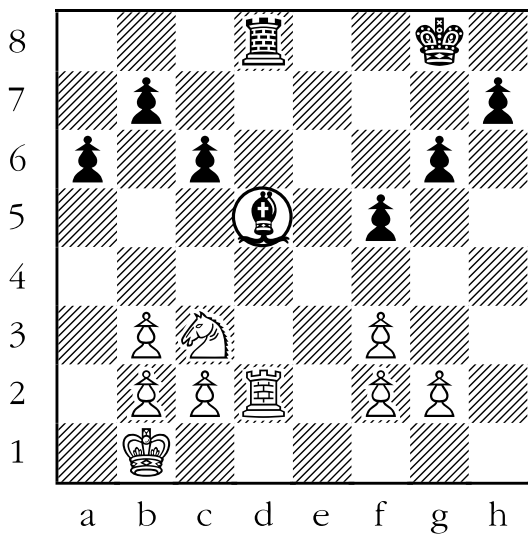
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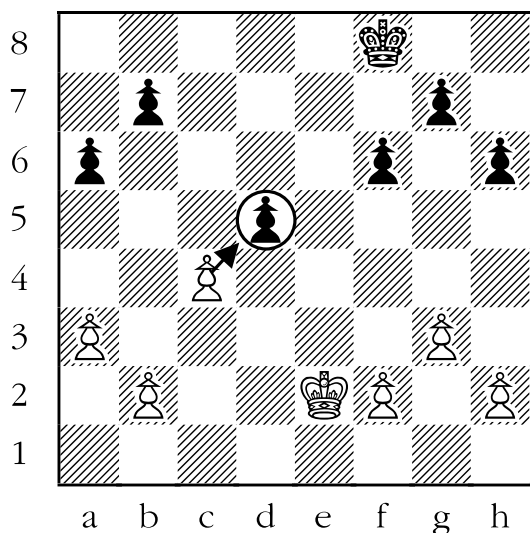
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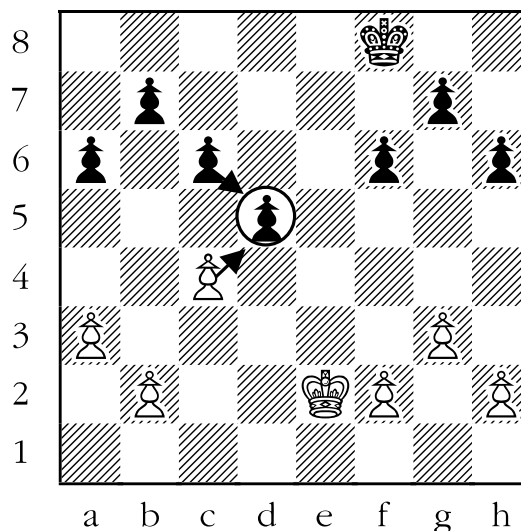
# Answer Sheet 18-1: Attacking and Defending

In the following diagrams, does white win material if she takes the circled piece? If yes, how many points is she ahead?

**1. ANSWER: YES, ONE POINT.** The black pawn on d5 is attacked by the white pawn on c4, and isn't defended by any black piece. White wins a free pawn, which is worth a point.



**2. ANSWER: NO.** A black pawn on c6 has been added to the last position. Here if white takes the pawn on d5, black can recapture with the pawn on c6, and each side wins a pawn. Not a bad trade, but it doesn't win any material.

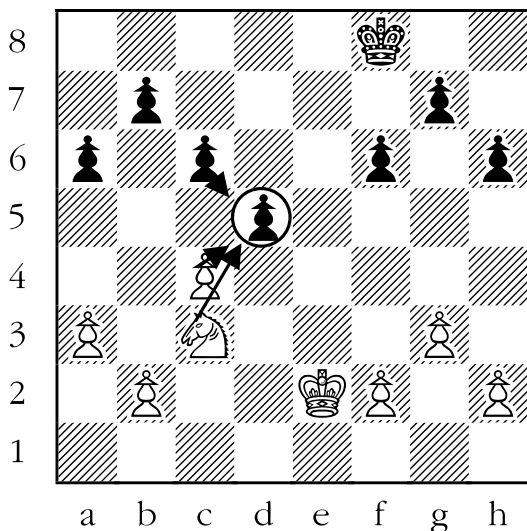


**3. ANSWER: YES, ONE POINT.** A white knight has been added to the previous position. Here is how the trade might go:

- white takes the pawn on d5 with the pawn on c4 (winning one point). White is ahead 1-0 on points.
- black recaptures with the pawn on c6 (winning one point). The score is tied 1-1.
- white can recapture with the knight (winning one point). The score is 2-1.

White will have then won two pawns (the one on d5 plus the one on c6) for the pawn on c4. Winning a pawn is equal to a winning a point.

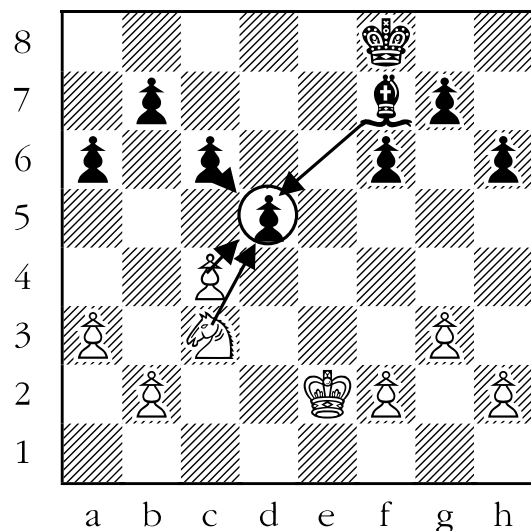
If white had instead taken the black pawn on d5 with the knight first, she would have lost a point on the trade after black recaptured with the pawn on c6 and then white recaptured with the pawn on c4. White would have lost a knight (worth three points) for two pawns (worth two points). This is an example of why it is almost always a good idea to capture with the least valuable piece first.



**4. ANSWER: NO.** A black bishop has been added to the position. Let's see how this affects the trade:

- white takes the black pawn on d5 with the pawn on c4. She is ahead 1-0 on points.
- black can recapture with the black pawn on c6. The score is tied 1-1.
- White can then take the pawn on d5 with the knight on c3. The score is 2-1 for white.
- the black bishop could take the knight. The score is 4-2 for black.

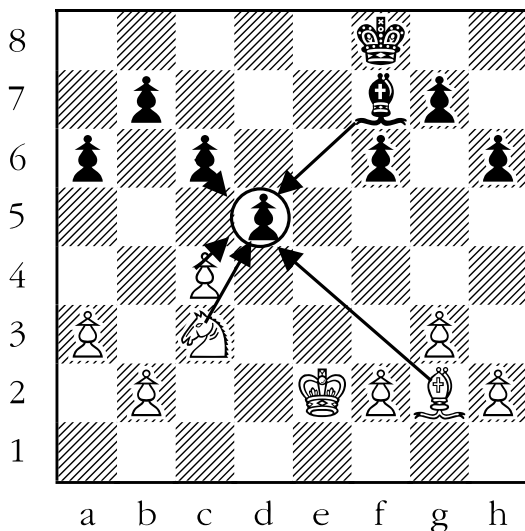
Overall, this is a very bad trade for white because she has lost the knight plus the pawn on c4 for two black pawns, the ones on c6 and d5. Of course, it would be better for white to take the pawn on d5 with the pawn on c4, and after black recaptures with the pawn on c6, simply not capture the pawn on d5 with the knight. But even so, white is only trading pawns. She doesn't win any material.



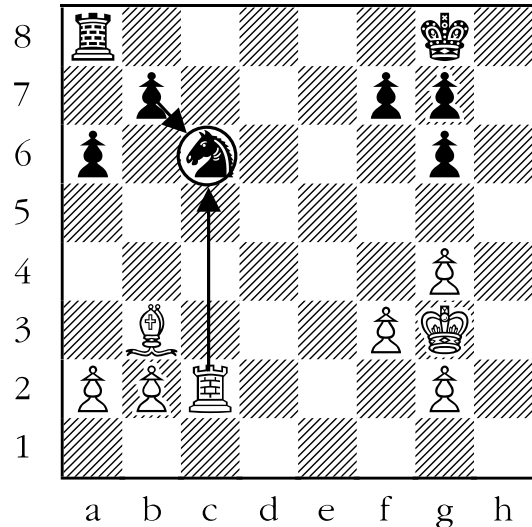
**5. ANSWER: YES, ONE POINT.** One last piece, a white bishop, has been added to the previous position. If white initiates a long sequence of trades, she wins a pawn. For example:

- white takes the pawn on d5 with the pawn on c4. The score is 1-0 for white.
- black could then take the white pawn, which is now on d5, with the pawn on c6. The score is tied 1-1.
- white then takes the black pawn with the knight. The score is 2-1 for white.
- black captures the white knight with the bishop. The score is now 4-2 for black.
- white could then take the black bishop with the white bishop. The score is now 5-4 for white.

At the end of this melee, white would have won five points (the black bishop plus the two black pawns on c6 and d5), for four points (the white knight plus the white pawn on c4). That would be an extra point for white.



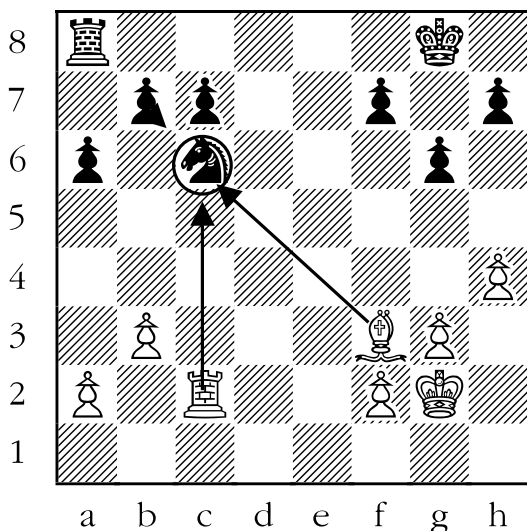
**6. ANSWER: NO.** If white takes the knight on c6 with the rook, black can recapture with the pawn on b7. White will have traded a rook (five points) for a knight (three points). White has lost two points. Not a good trade at all.



**7. ANSWER: YES, ONE POINT.** Here is how the trade could go:

- white takes with the bishop first (on the theory that one should usually capture with the least valuable piece first). The score is 3-0 for white.
- black takes the bishop with the pawn on b7. The score is 3-3.
- white takes the pawn with the rook. The score is 4-3.

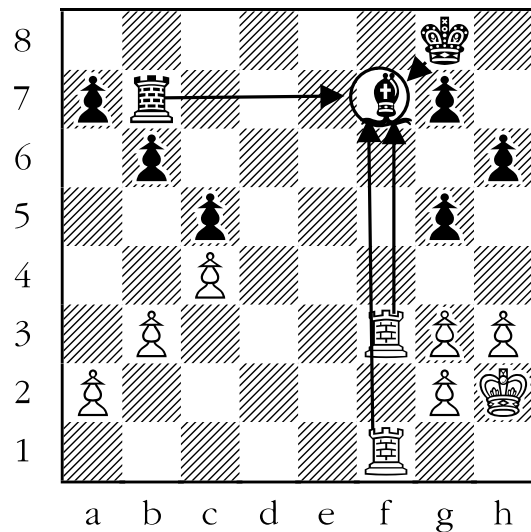
White will have won a knight and pawn (worth four points) for a bishop (worth three points), netting one extra point on the trade.



**8. ANSWER: NO.** Here is how a trade might go:

- White plays rook on f3 takes the bishop on f7. White is ahead 3-0.
- Black recaptures the white rook on f7 with the rook. Black is ahead by 5-3.
- White takes the black rook, which is now on f7, with the other white rook. White is ahead 8-5.
- Black takes the second white rook with the king. Black is ahead 10-8.

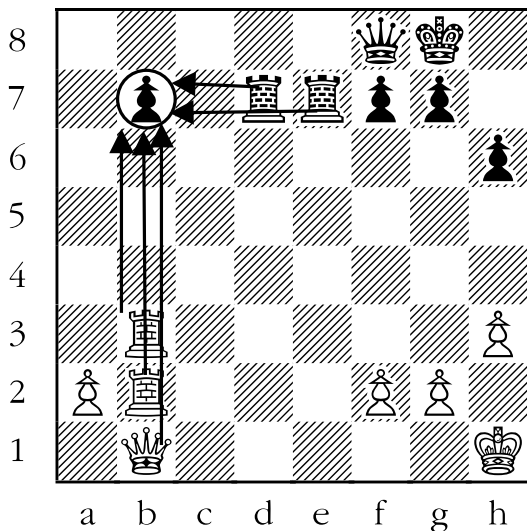
When the smoke has cleared, white has traded two rooks (at five points each, for a total of ten points), for a rook and a bishop (at five plus three points, for a total of eight points). In the end, white has lost two points making this trade.



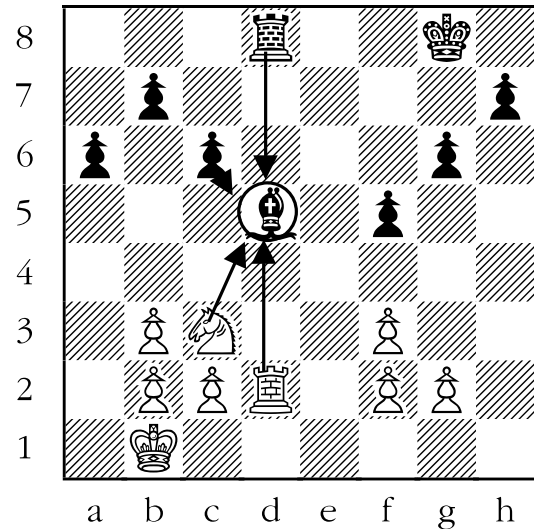
**9. ANSWER: YES, ONE POINT.** Here is how a trade could go:

- White takes the pawn on b7 with the rook on b3. White is ahead 1-0.
- Black retakes the white rook with the rook on d7. Black is ahead 5-1.
- White then takes the black rook on b7 with the rook on b2. White is ahead 6-5.
- Black retakes the white rook on b7 with the rook on e7. Black is ahead 10-6.
- White takes the rook on b7 with the queen. White is ahead 11-10.

In the end, white has won the originally captured the pawn on b7 plus both black rooks, in exchange for his two white rooks. White has won a pawn (point).



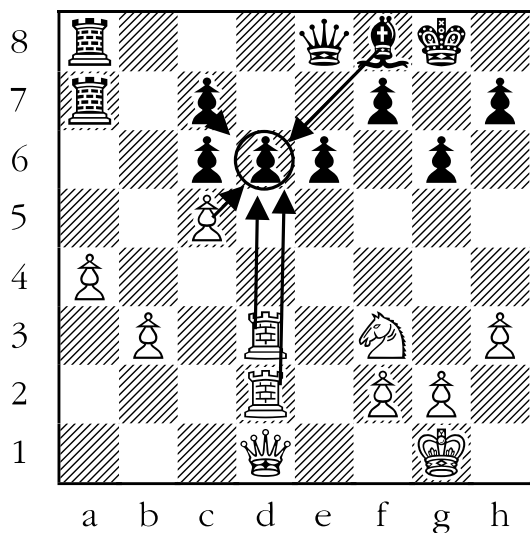
**10. ANSWER: NO.** If white takes the bishop with the knight, and black recaptures with the pawn on c6, it is an even trade, but white doesn't win anything. It is even worse if white continues trading by capturing the pawn with the rook, since then she would lose the rook when black recaptures it.



**11. ANSWER:** NO. Let's see how this trade could go:

- White takes the black pawn on d6 with his least valuable piece, the pawn on c5.
- Black recaptures with his least valuable piece, the pawn on c7. So far the trade is even, 1-1.
- Now if white takes with the rook on d3, she is ahead 2-1.
- Then black takes back with the bishop, so black is ahead 6-2.
- White then takes the bishop with the rook on d2. The capturing is over, but white is behind 6-5.

White has won two pawns (the ones on c7 and d6) plus a bishop, for the pawn on c5 and the rook on d3. White got five points, but it cost him six points, for a net loss of one point. A poor trade for white.



## Lesson 19 Make a Fork (Sheet 19-1)

### Objective:

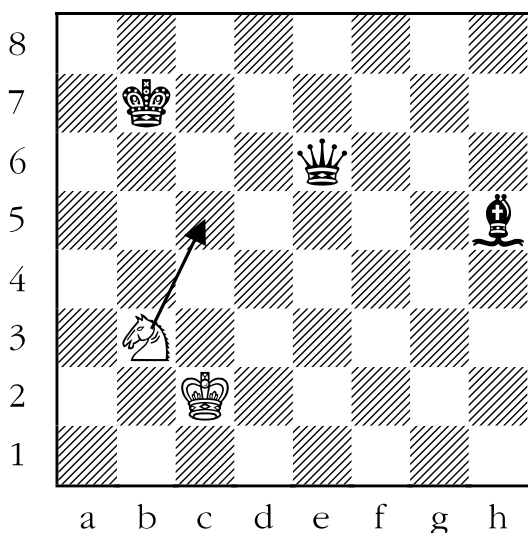
- Teach students “the fork”, the first elementary tactic.

### Skills Developed:

- Increase ability to plan.

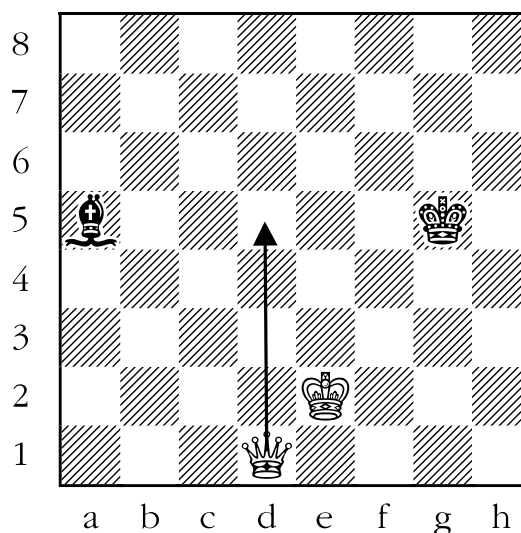
When two beginners face each other, games are determined by who leaves more material “en prise” (in a position where they will be captured), and who notices and takes the material. Against a more experienced opponent, a little more guile is called for. In order to win, you may need to unleash a tactic. We now move on to one of the most common tactical devices - **the fork**.

A fork is simply a move that attacks two or more pieces at the same time. The opponent cannot deal with both threats at the same time, and has to allow one of his pieces to be taken. Here is an example of the power of the fork:



In the previous diagram, white has a knight for a queen and a bishop (three points against twelve points), which under normal circumstances would be quite a sizable deficit. Here there is a special circumstance that allows her to keep the game in balance. White can play her knight to c5, which attacks the black king and queen at the same time. After the king moves out of check, white can take the black queen for free.

Here is another example of the fork. This one is a little more difficult:



White wants to attack the black king and bishop at the same time. She sees that there are three possible squares that fulfill this criterion: d2, d5, and d8. Unfortunately, moving the queen to either d2 or d8 would be a terrible mistake, as in either case the black bishop would simply answer the attack by taking the queen.

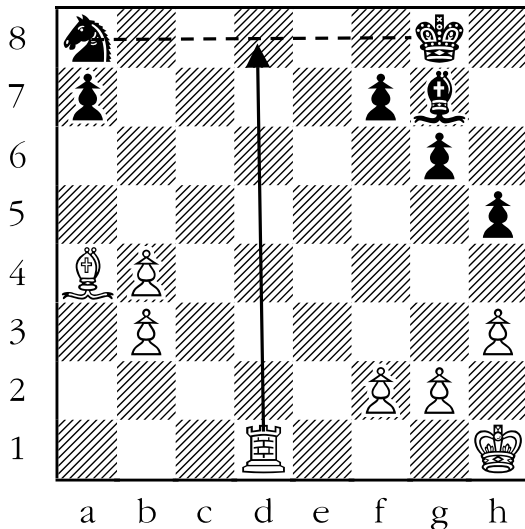
Moving the queen to d5 successfully forks the two pieces. The king has to escape the check by moving away, and then the queen can simply scoop up the bishop.

This demonstrates that there are good forks and bad forks - play the good forks!

One way to train yourself to find forks is to look for valuable pieces that are

lined up horizontally, vertically, or diagonally. Mentally draw a line between the two pieces. If you can safely play a piece that moves in the same way as the two pieces are lined up onto that line you might have a good fork.

Here is an example:



The first thing that you should do is divide the white pieces into those that could and those that could not make a fork. In this case, the pawns and king, because they are short-range pieces, are probably not going to be able to fork anything, since the black pieces are so far away. That leaves the white rook and bishop as the only candidates in this position. Now we look for black pieces that are preferably unprotected and lined up in this position.

Notice that the black king and the knight are lined up horizontally, from white's perspective, along the eighth rank (the squares a8 through h8)? In your head, draw a line between the knight and the king. What white piece moves in the same manner as this line (i.e. horizontally)? The rook. And where can the rook safely move to a square on the line that you drew? By

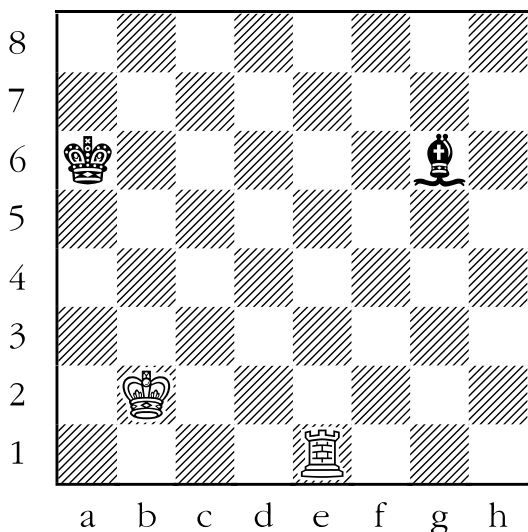
moving to d8. When the rook moves there, the king must defend against the check, and then white can take the knight on a8.

Doing this exercise won't help a player locate every fork in a given position, but at least gets him thinking about the possibility of forking his opponent's pieces. That is a good start.

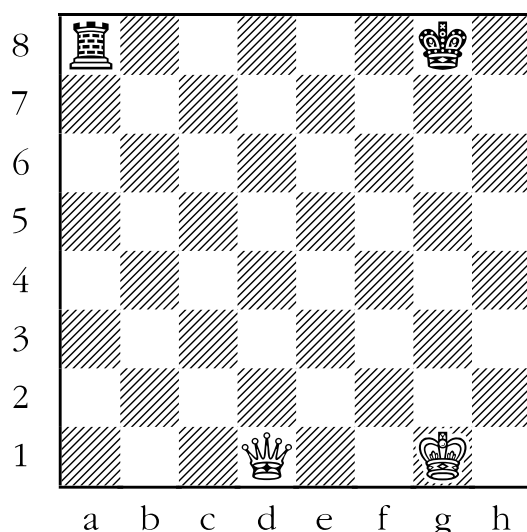
# Sheet 19-1: Make a Fork

In the following diagrams, draw an arrow to show how white can attack two pieces at the same time, and win one of them.

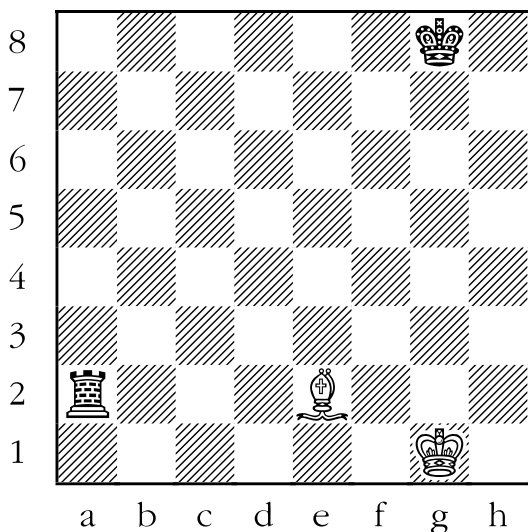
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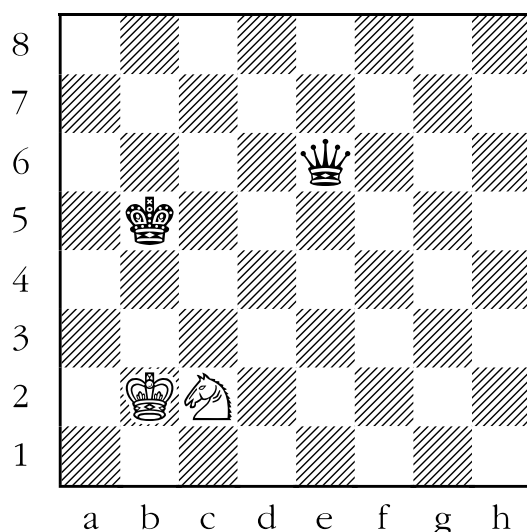
3.



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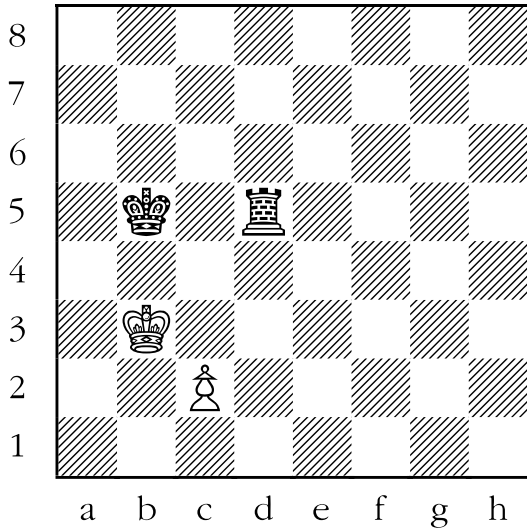


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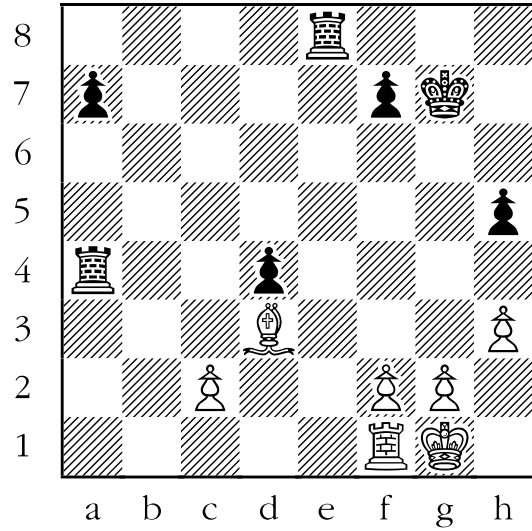


# Sheet 19-1: Make a Fork

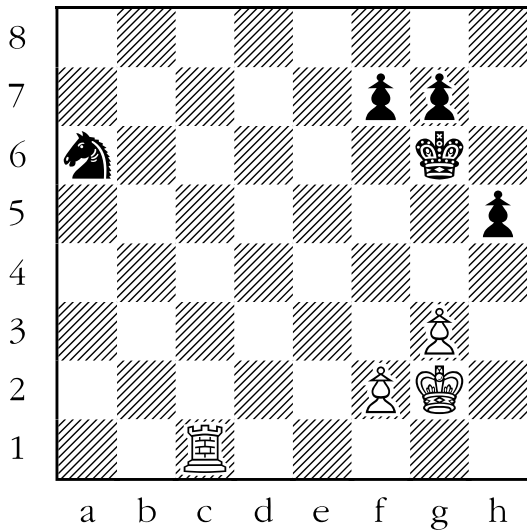
5.



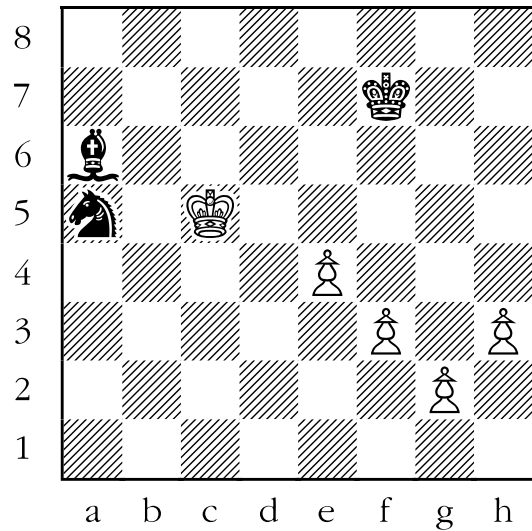
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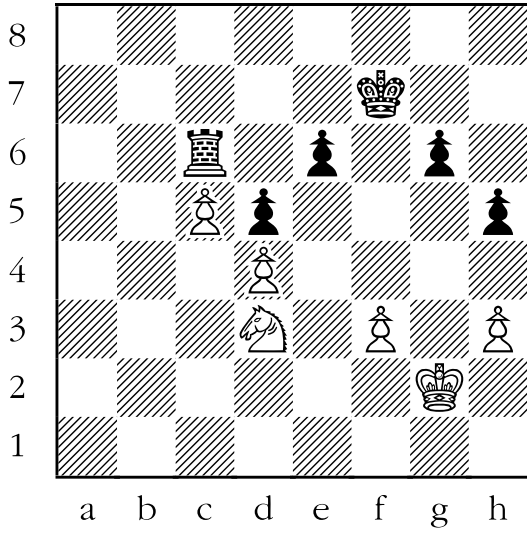


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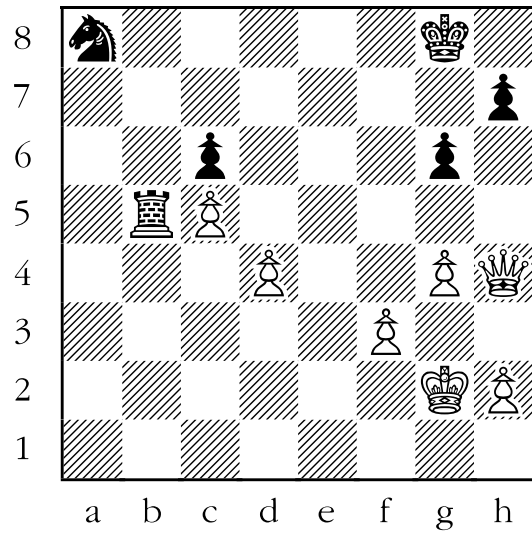


# Sheet 19-1: Make a Fork

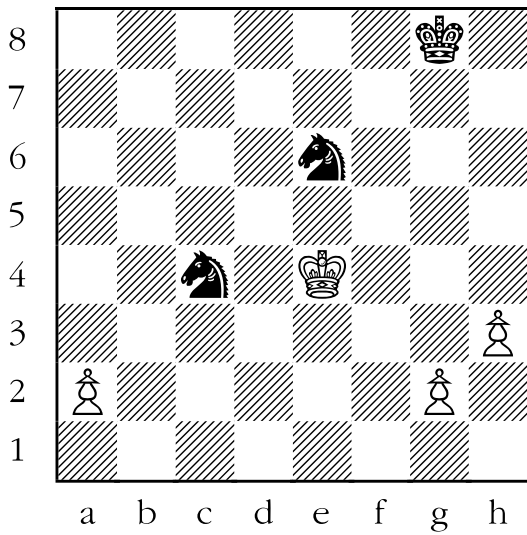
9.



11.



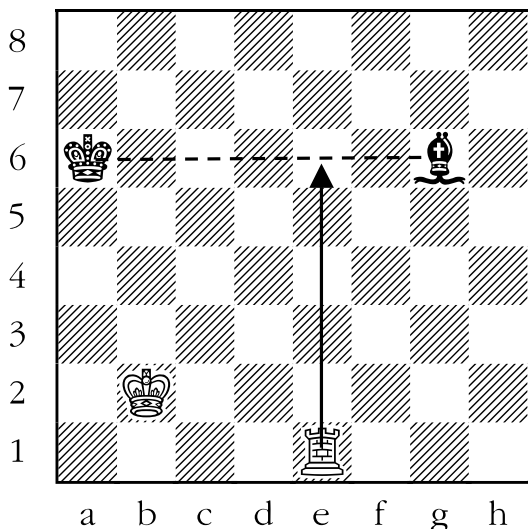
10.



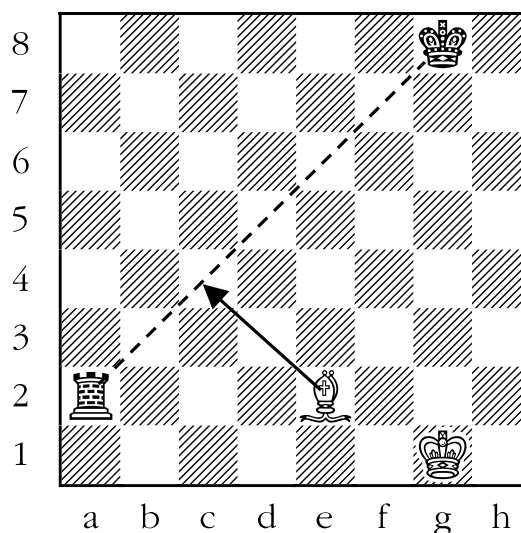
# Answer Sheet 19-1: Make a Fork

In the following diagrams draw an arrow to show how white can attack two pieces at the same time, and win one of them.

**1. ANSWER: ROOK TO e6.** The black king and the bishop are lined up horizontally. Draw a horizontal line in your mind between them. Rooks move and attack horizontally. The rook can attack the king and the bishop by moving to any square on that line. If the rook moves to e6 it will attack the black king and the bishop at the same time. After the black king moves out of check, the rook can take the bishop.



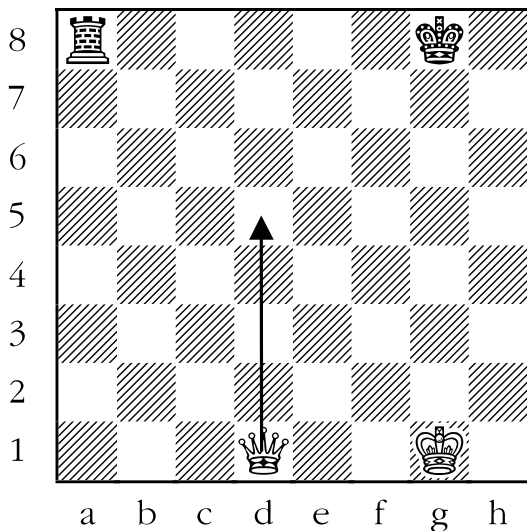
**2. ANSWER: BISHOP TO c4.** The black king and the rook are lined up diagonally. Draw a diagonal line in your mind between the two pieces. Bishops move and attack diagonally, and if the bishop can get to any square on that line, the two pieces will be attacked simultaneously. The bishop can move to one of those squares, specifically c4. After the black king moves out of check, the bishop can take the rook.



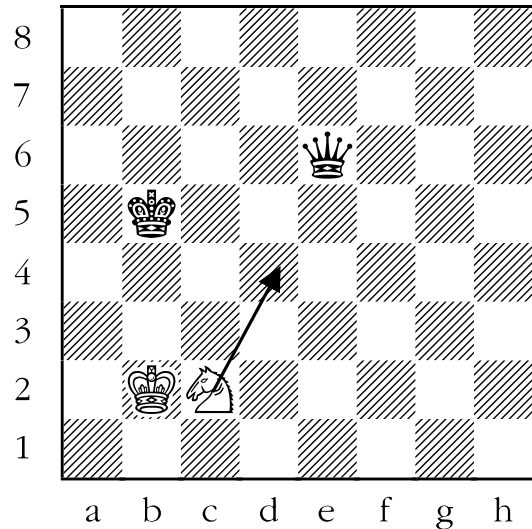
**3. ANSWER:** This one is a little more difficult. The king and the rook are lined up horizontally, and one might be inclined to play a move like queen to d8, which attacks both the king and the rook at the same time. The problem is that the rook would simply capture the queen. This is a fork, but a bad fork. In this case, what we need to do is:

1. Attack (check) the king; and,
2. Attack the rook diagonally, since rooks don't capture in that way.

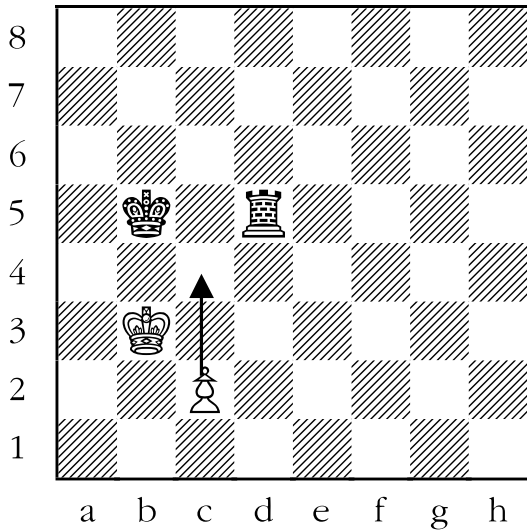
The only square where both of these objectives can be met on this turn is by moving the queen to d5.



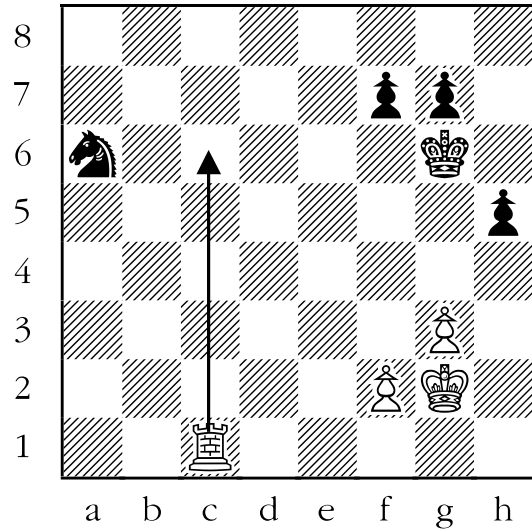
**4. ANSWER:** KNIGHT TO d4. In this instance, white has to play a move that attacks the queen and the king simultaneously. The only square where white can do that is by moving the knight to d4. After the king moves out of check, the knight can take the queen.



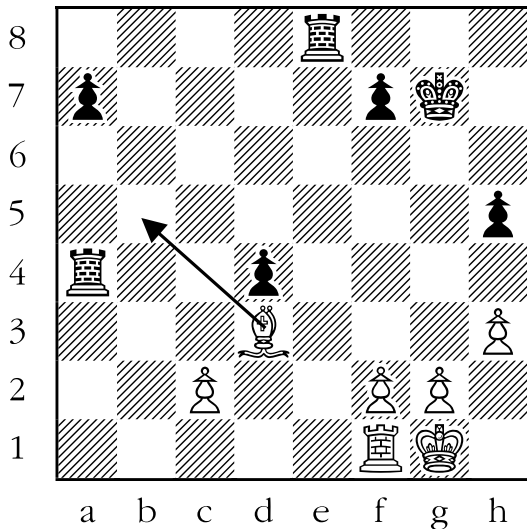
**5. ANSWER: PAWN TO c4.** White has to attack the black king and the rook at the same time. White can do this by moving his pawn to c4. Black can't take the pawn with his king, since it is guarded by the white king. After the king moves out of check, the pawn can take the black rook.



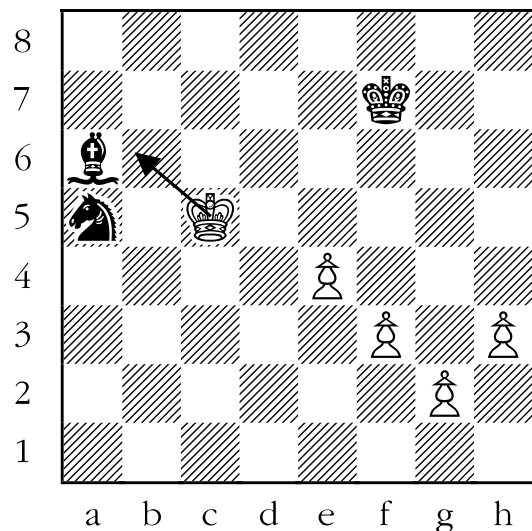
**6. ANSWER: ROOK TO c6.** The black king and the knight are lined up horizontally. Rooks move and attack horizontally, so moving the rook to c6 would attack both the king and the knight at the same time. After the black pawn moves from f7 to f6 to block the check or the king moves out of check, white could take the black knight.



**7. ANSWER: BISHOP TO b5.** This diagram is the kind of position that you could see in a game. The only prospective white pieces for delivering a fork are the white bishop and the white rook. All of the other pieces (the king and the pawns) are short-range pieces, and don't appear to be able to fork anything. With a little analysis, hopefully some students would see that the two rooks are lined up diagonally, and that white can play his bishop to b5, attacking both of them at once. The alternative fork, moving the bishop to g6 (forking the pawns on f7 and h5) is very bad, since either the black king or the pawn on f7 could take the bishop for free.



**8. ANSWER: KING TO b6.** In this example, white has only short-range pieces. That means that he can only hope to fork those pieces that are close to one another. That would be the knight and the bishop. There are two possible squares for the king to move to. These are b5 and b6. But moving to b5 is illegal, since the bishop on a6 guards that square. That leaves moving the king to b6 as the only possible fork. Black can rescue either of his attacked pieces, but not both of them.



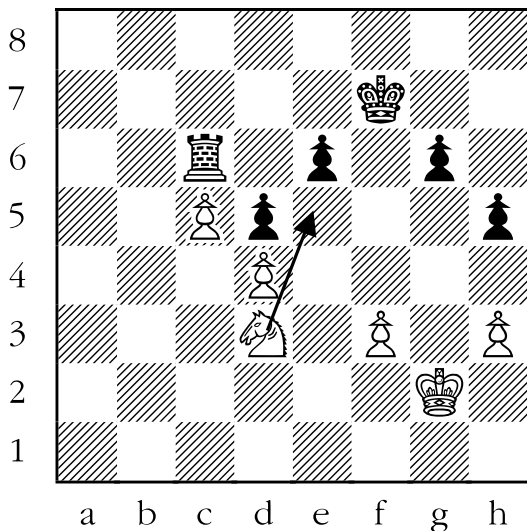
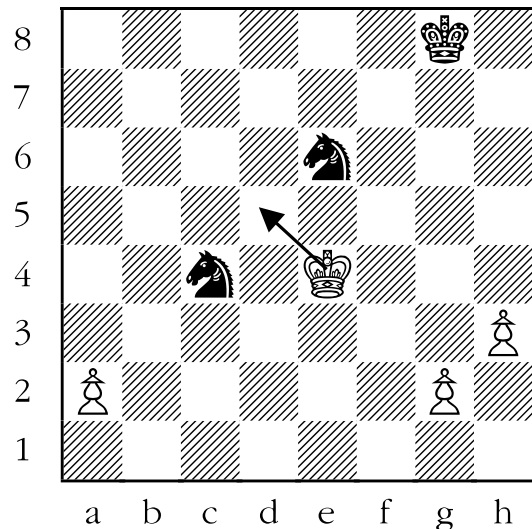
**9. ANSWER:** In this example, the only white piece that can even attack a black piece on the next move is the white knight. It appears that the knight has three squares that make forks.

The first try is to move the knight to b4, which appears to fork the rook and the pawn on d5. However, after the rook moves, white would be unwise to take the pawn on d5, because white would lose the knight after the pawn on e6 takes the knight.

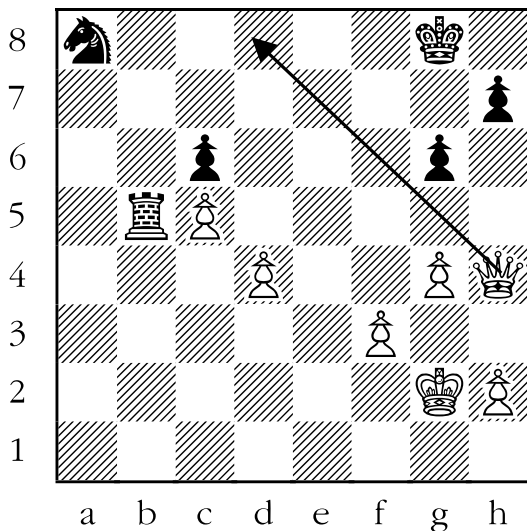
The second try is to move the knight to f4, which attacks four pawns (d5, e6, g6, and h5). Unfortunately for white, all four of them are guarded! White isn't threatening to take anything.

The third try is to move the knight to e5, which attacks both the king and the rook. After the king moves out of check, the knight would take the rook for free. This is a very good fork, indeed.

**10. ANSWER:** Here, white has only short-range pieces left. The only forks possible for white are ones that attack two pieces that are close to each other. The only pieces that are near enough to any white piece to be attacked are the two knights. The king is near both knights, and can attack both of them by moving to d5. Black can move one of his knights away, but then white can take the other one.



**11. ANSWER:** This example is the most complicated position so far. Black has various pieces; which pieces should white even think about trying to fork? One possible way is to look at all of the pieces that aren't protected, since they are particularly good candidates. The knight and the king are the most valuable undefended pieces, since the rook is guarded by the pawn on c6. The only way to attack both the king and the knight simultaneously is to move the queen to d8. The king is in check, and after it moves out of check, white can take the knight for free.



## Lesson 20

### Make a Pin

(Sheet 20-1)

#### Objective:

- Teach students “the pin”, the second elementary tactic.

#### Skills Developed:

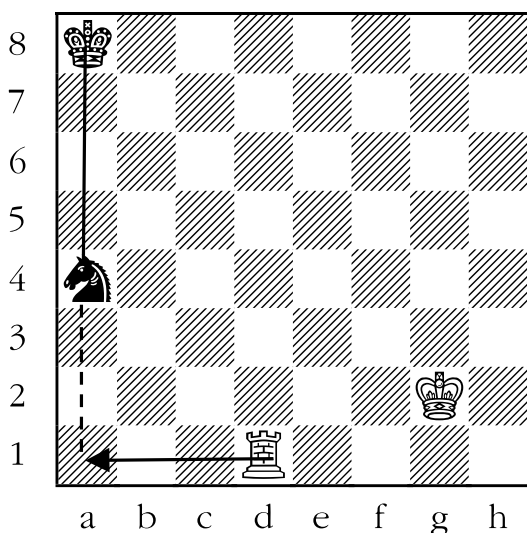
- Visualization.
- Planning.

The second tactic we will look at is the pin. We have already covered the underlying concept of the pin in **Lesson 9**. Now we will learn how to try and create our own pins to use as weapons against our opponent.

The concept of the pin is simple:

1. You see two of your opponent’s pieces in a line (horizontally, vertically, or diagonally).
2. The less valuable one is in front of the more valuable one.
3. You attack the less valuable piece in such a way that if it moves, you can then take the more valuable one.

Let’s see how this is done:



In the previous diagram, the black king and the knight are lined up vertically along the a-file (i.e. the squares a1 through a8). Draw a line, in your head, between the king and the knight; much like was done in the last lesson on forks. In this case, however, the line is extended past the knight and all of the way down to a1.

In your mind, you should now have a vertical line running from the black king, through the black knight, and all of the way down to a1.

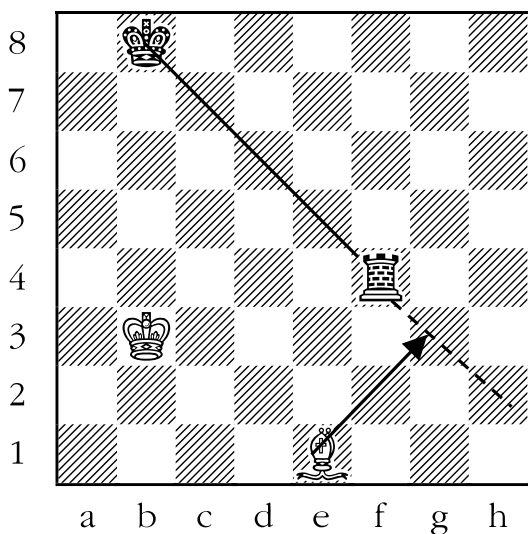
If white could place a long-range vertical piece (i.e. queen or rook) on one of the squares that you have projected on the line past the knight (i.e. a3, a2, or a1) then you can pin the knight against the king.

In the previous diagram, white can attack the black knight and pin it against the black king by moving his rook to a1. The knight can’t move, because if it did it would place the black king under attack from the rook, which we know is illegal.

Black can’t move the knight, and he can’t guard the knight, so on white’s next move, white will simply take the knight.

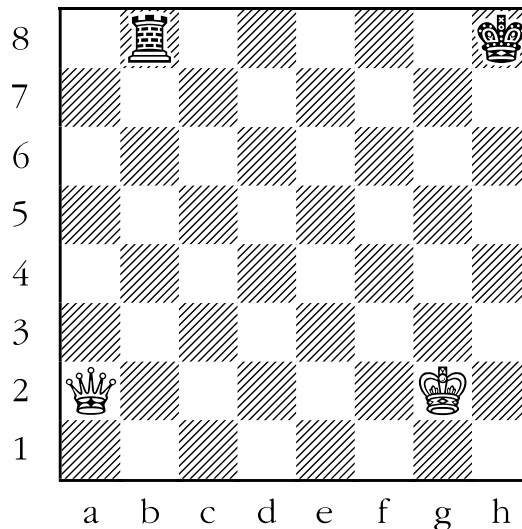
*Notice that pieces can only be pinned in long, straight lines. Therefore, the only pieces that can make a pin are the ones that travel over great distances in a straight line, also known as “long-range pieces”. Those are the bishop, rook, and queen. Kings, pawns, and knights don’t have the ability to make pins.*

Another example of white making a pin appears below:



The black king and the black rook are on the same diagonal. In your mind, draw a line between the black king and the rook, and then extend the line further down the diagonal, to the edge of the board. The line should cover the following squares: b8 (where the king is), c7, d6, e5, f4 (where the rook is), g3, and h2. If any piece that moves diagonally more than one square at a time (a queen or a bishop) were to move to either g3 or h2, the rook would be pinned. In this case, the white bishop can move to g3, pinning the black rook against the black king. He could then take the rook on his next move.

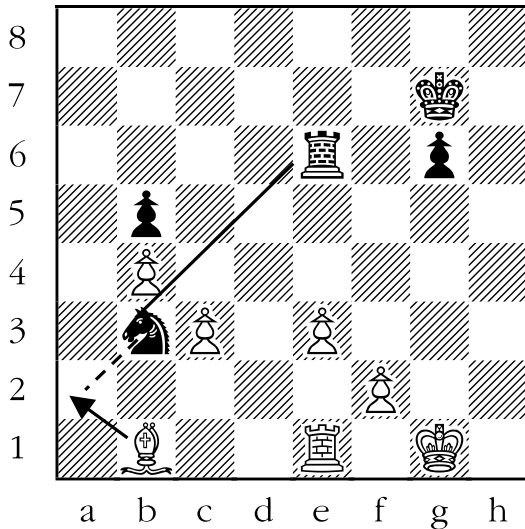
You should be warned that there are bad pins in the same way as there are bad forks. The following is a very bad pin:



White sees that the king and rook are lined up horizontally. White draws a line in his mind between the king and the rook, and extends the line all of the way across to a8. White has a piece that can move and attack horizontally, so he plays the queen to a8, pinning the rook.

Unfortunately for white, black too has a piece that moves and attacks horizontally and captures the white queen with the pinned piece. Just like with the forks, **not all pins are good.**

All of the pins in the exercise sheets involve pins where the king is the piece that is pinned, but any situation where two pieces are lined up with the more valuable one being behind the less valuable piece are potential pin situations. Here is an example of that:

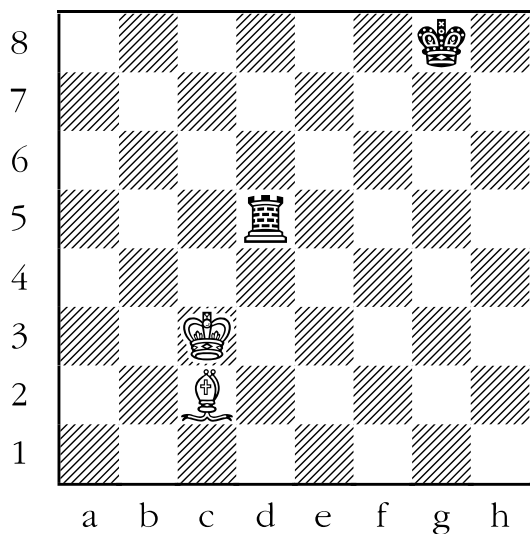


White sees that the black rook and knight are lined up diagonally. Extending the line from e6 (where the rook is) to b3 (where the knight is) and beyond to a2, white sees an opportunity to make a diagonal pin. By playing the white bishop to a2, white attacks the black knight. If the knight moves, the bishop could take the black rook. So black can't move the knight. Black also can't defend the knight, so black will lose the knight on white's next move.

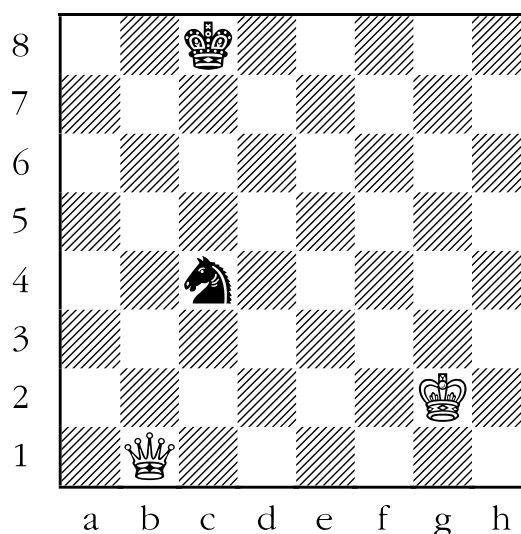
# Sheet 20-1: Make a Pin

In the following diagrams, draw an arrow to show how white can pin a black piece against the black king and win material.

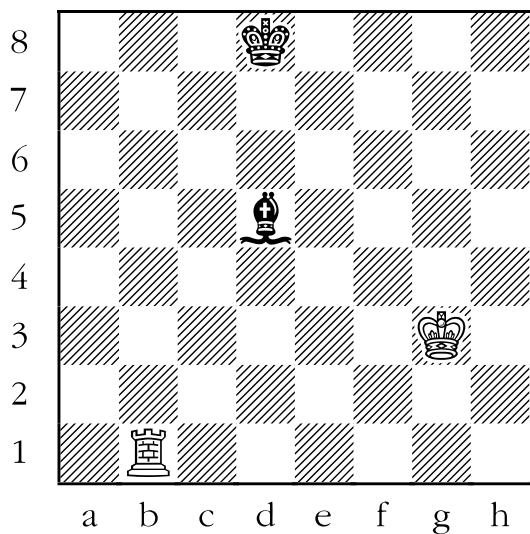
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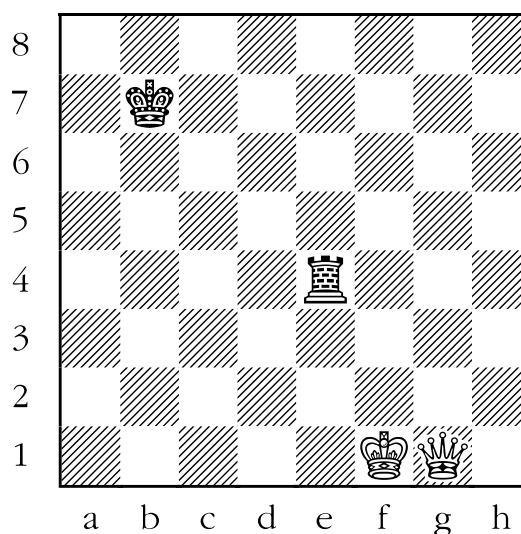
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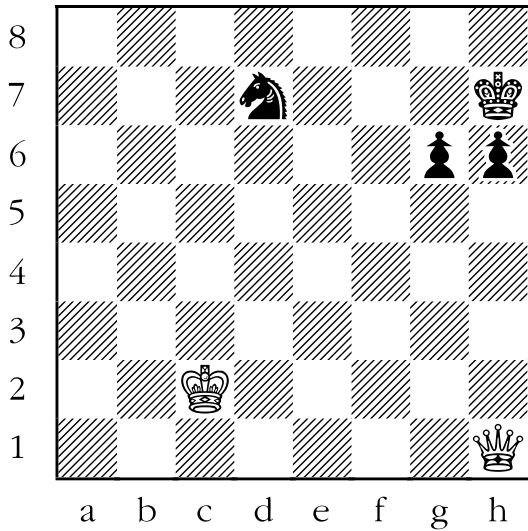


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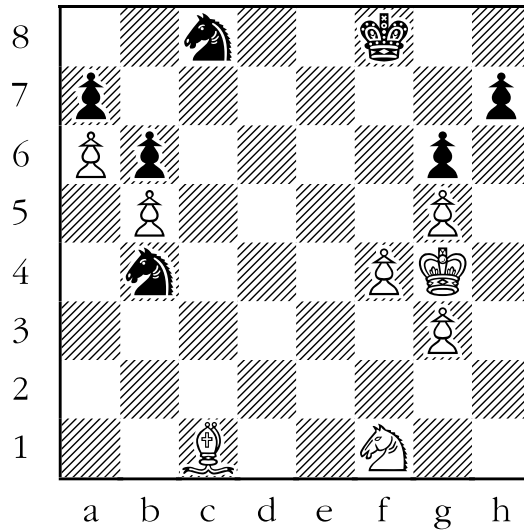


# Sheet 20-1: Make a Pin

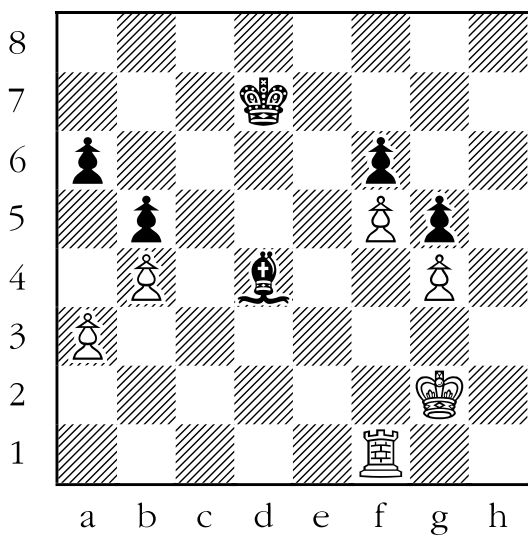
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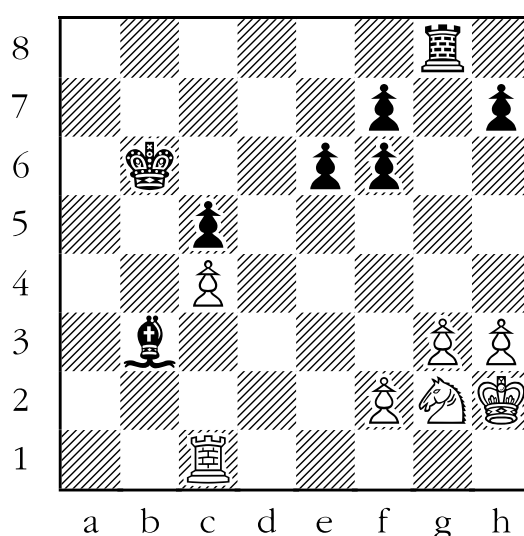
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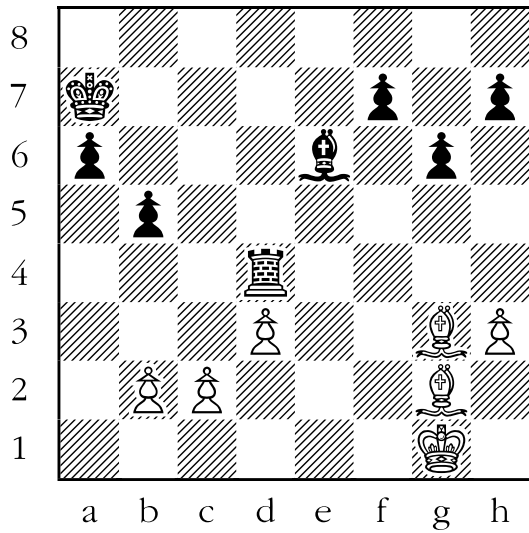


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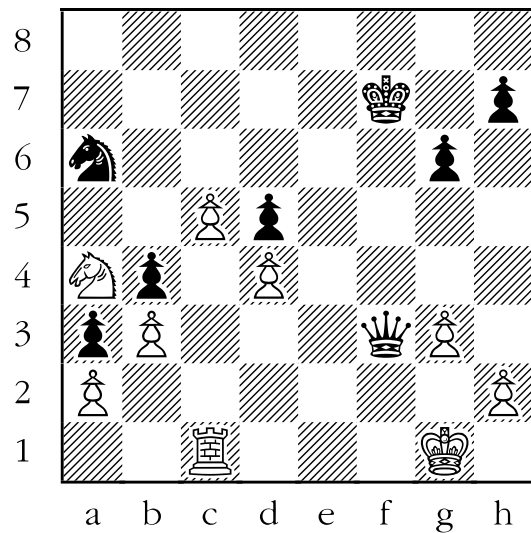


# Sheet 20-1: Make a Pin

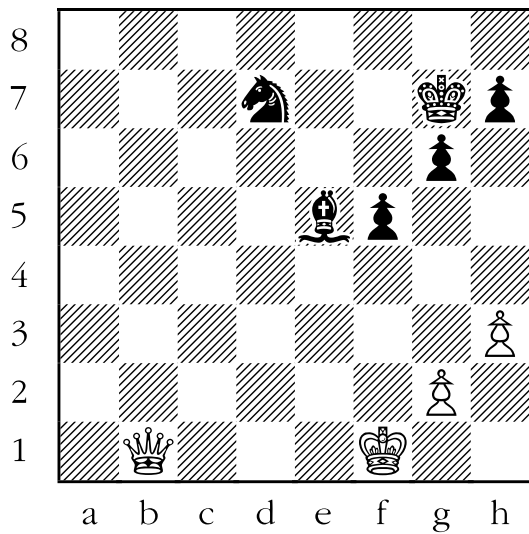
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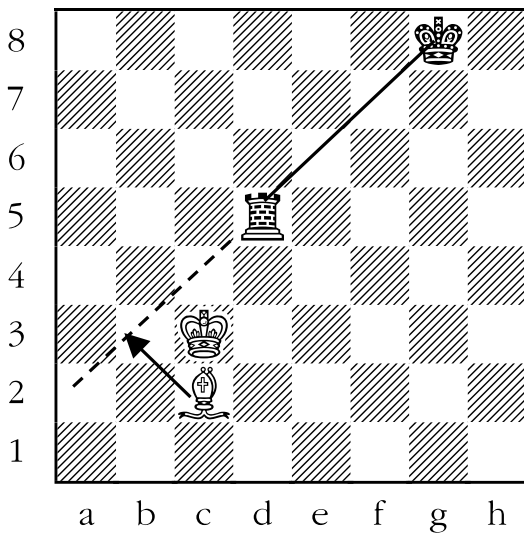


# Sheet 20-1: Make a Pin

In the following diagrams, draw an arrow to show how white can pin a black piece against the black king and win material.

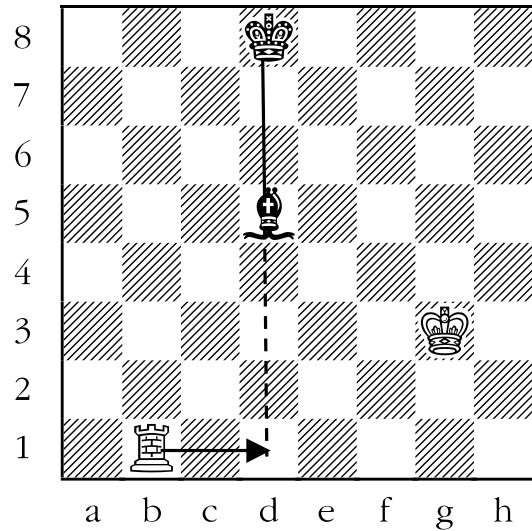
**1. ANSWER: BISHOP TO b3.** The black rook and the black king are lined up on the same diagonal. In your head, draw a line from the king to the rook, and then extend that line past the rook, all of the way to the end of the diagonal. The following squares should have a line on them: g8, f7, e6, d5, c4, b3, a2.

If a long-range piece that moves diagonally lands on one of c4, b3, or a2, then the rook is pinned. In this case, the bishop can move to b3, which attacks the rook. The rook can't move away from the attack because that would place the black king in check, which is illegal. On white's next move, he could then take the free rook.

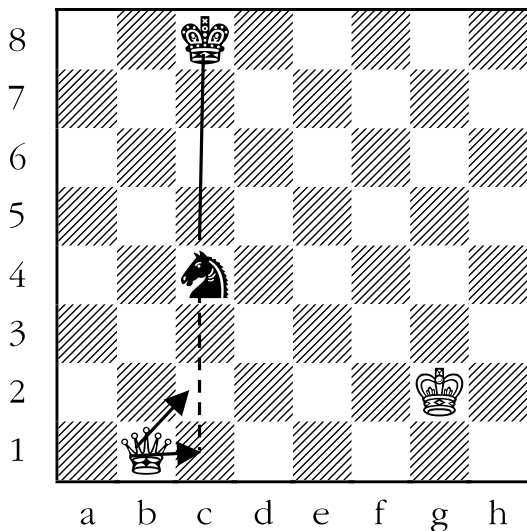


**2. ANSWER: ROOK TO d1.** The black king and bishop are lined up vertically along the d-file (the squares d1 through d8). Draw a line in your head between the king and the bishop, and then extend that line all of the way down the file, to d1. The line should go over the following squares: d8, d7, d6, d5, d4, d3, d2, and d1.

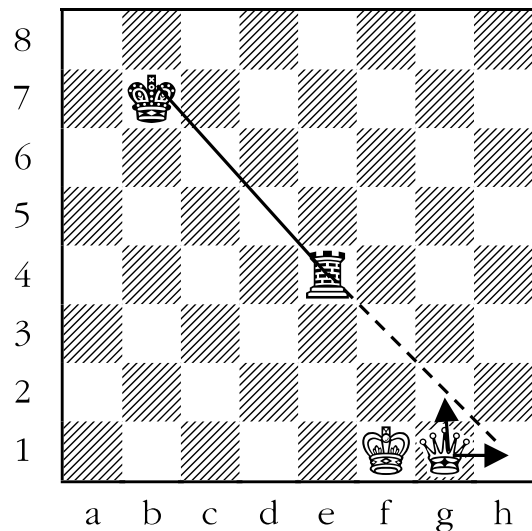
If you place a long-range piece that moves vertically on one of d4, d3, d2, or d1, then the bishop is pinned. In this case, the rook on b1 can in fact move to d1. From here it attacks the bishop. The bishop can't move because that would uncover an attack on the king, which is illegal. On white's next move, he could take the free bishop.



**3. ANSWER: QUEEN TO c1 OR QUEEN TO c2.** The knight and king are on the same vertical line, the c-file. Draw a line in your head from the king to the knight and then extend the line down towards c1. The line should go over the following squares: c8, c7, c6, c5, c4, c3, c2, and c1. If a long-range piece that can move vertically goes to any of c3, c2, or c1, then the knight would be pinned against the king. In this case, the queen has a choice of going to either c1 or c2 on this turn. Both are equally good; in both instances the knight is pinned against the king.

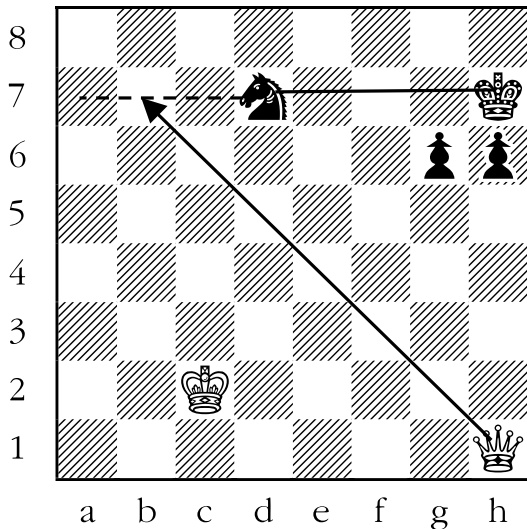


**4. ANSWER: QUEEN TO g2 OR QUEEN TO h1.** The king and rook are lined up on the diagonal h1 to a8. Draw a line in your head from the king to the rook, and then extend the line past the rook all of the way to h1. In this case we don't need the line to go to a8, because the king is not on the corner of the board. If we were to move a long-range piece that can move diagonally onto one of f3, g2, or h1, the rook would be pinned. The queen can go to either g2 or h1, and pin the rook against the king. The rook can't move, because that would place the king in check, which is illegal.

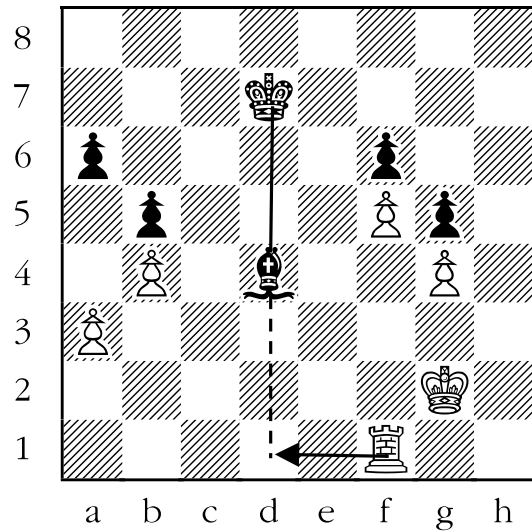


**5. ANSWER: QUEEN TO b7.** In the following example, which black piece should white pin? The best pins are ones in which the piece that is pinned is undefended. This can be demonstrated by trying to move the queen to e4, which pins the black pawn on g6 to the black king. The problem with this move is that the queen isn't actually threatening to take the pawn, since the black king guards the pawn.

A better move is to send the queen to b7. The knight is attacked, and can't move because that would place the black king in check from the queen. Black can't guard the knight, and so after black moves, white will simply take the knight for free.

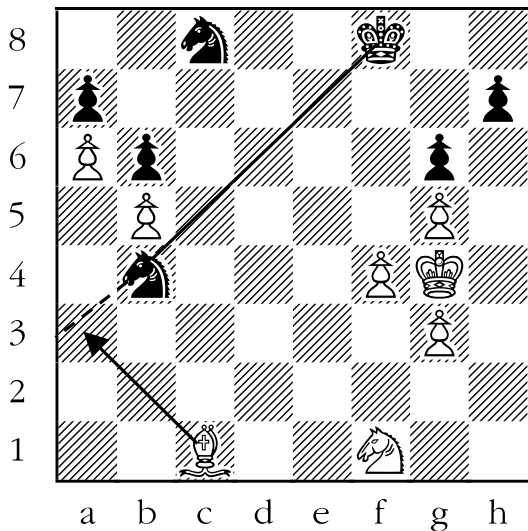


**6. ANSWER: ROOK TO d1.** Which white piece will be making the pin? Well, we know that kings, knights, and pawns don't have the power to pin things because they are "short-range" pieces. In the example below, that leaves only the rook. Black's king and bishop are lined up on the d-file. White can pin the bishop to the king by moving the rook to d1. The bishop can't move, because that would place the king in check, which is illegal.

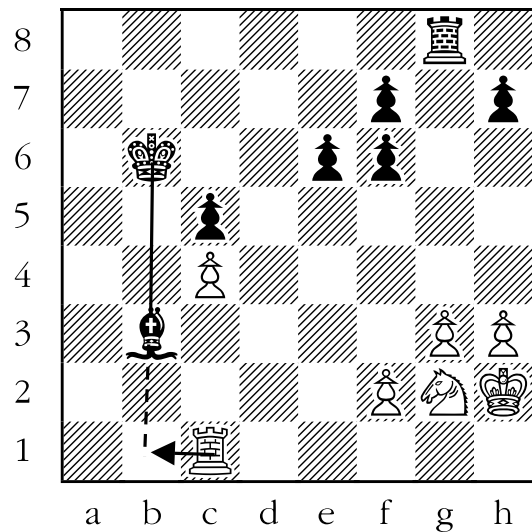


**7. ANSWER: BISHOP TO a3.** Of the white pieces on the board in the diagram below, only the white bishop is even theoretically capable of making a pin. The only two pieces that are lined up diagonally on dark squares are the black king and the knight on b4. Black makes a pin by moving his bishop to a3. The knight can't move because that would place the black king in check.

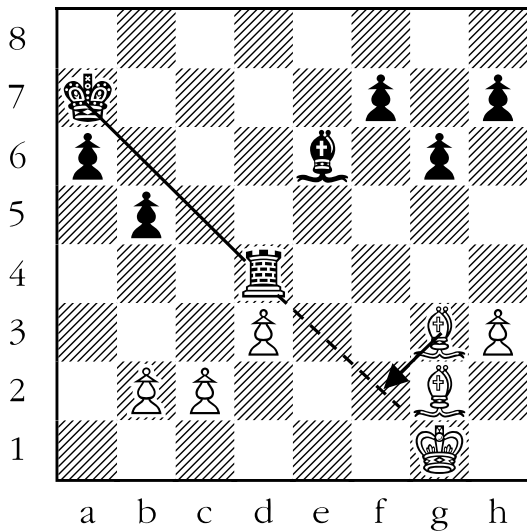
Some students might try to move their bishop to e3, thinking that they are pinning a pawn against another pawn. They are close, but not quite right. The problem is that they aren't actually threatening to win anything. If the bishop takes the pawn, then either the pawn on a7 or the knight on c8 could take the bishop. Not a good trade for white.



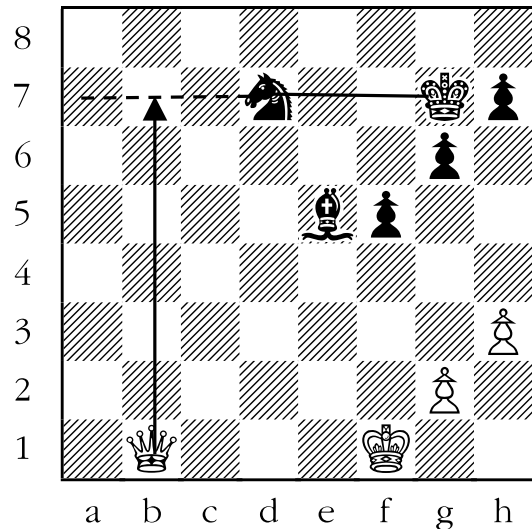
**8. ANSWER: ROOK TO b1.** Which white piece can make a pin in this position? Only the rook can. Since rooks move and attack horizontally and vertically, we should look for pieces that are lined up in that way. The black king and bishop are, and what's more the bishop isn't defended by any other black piece. If the rook moves to b1, the bishop is attacked. It can't be guarded by a black piece, and it can't run away because that would place the black king in check. On white's next move she could take the free bishop.



**9. ANSWER: BISHOP TO f2.** In the diagram below, white has two bishops, each of which could theoretically pin something. The king is on a dark square, so the dark-squared bishop must make the pin. The only other black piece on a dark square is the rook. Mentally draw a line diagonally from the black king to the rook. Now extend that line all of the way to the white king. The line should cover the squares: a7, b6, c5, d4, e3, and f2. We don't count g1 because a white piece is already on that square. If white can get his bishop to either e3 or f2, he can pin the rook against the king. Of course, he can simply move the bishop to f2.

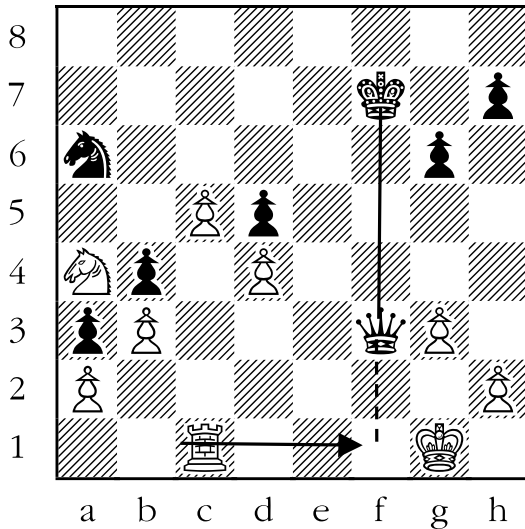


**10. ANSWER: QUEEN TO b7.** In this example, white seems to have two possible pins on the black king. The white queen can go to one of a1 or b2, pinning the black bishop against the king. Or, the white queen can go to b7, pinning the black knight against the black king. The problem with the first pin is that if white moves his queen to a1 or b2, the black bishop, which the queen is supposed to be pinning, will take the queen. The only pin that is good in this position is to move the queen to b7. The knight can't move, because then the white queen would be attacking the black king.



**11. ANSWER:** ROOK TO f1. Sometimes when you pin your opponent's piece you win material, but not for free, as in the example below. The black king and queen are lined up vertically. White has a rook, which can move and attack vertically. But if the rook goes to f1, which would pin the black queen against the king, the queen could simply capture the rook.

However, the white king could then take the black queen. In this way white would trade a rook (worth five points) for a queen (worth nine points), netting him four extra points. White wins material overall, but not for free.



# Lesson 21

## Make a Skewer

### (Sheet 21-1)

#### Objective:

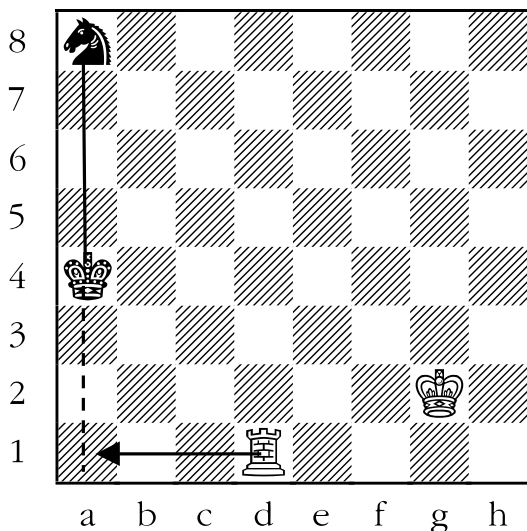
- Teach students “the skewer”, the third elementary tactic.

#### Skills developed:

- Recognizing vertical, horizontal and diagonal lines.

Skewers are basically reverse pins. In a pin, the less valuable piece is in front, and the more valuable piece is behind. In a skewer, however, the roles are reversed; the more valuable piece is in front. Many of the same techniques that we learned in doing pins also work when doing skewers.

Just like with the pin, the only pieces that can make a skewer are the long-range ones: the queen, the rook, and the bishop. Skewers, just like pins, occur on diagonals, files (vertical lines), and ranks (horizontal lines). Here’s an example:



The black king and the knight are lined up vertically along the a-file (i.e. the squares a1 through a8). Draw a line, in your head, between the knight and the king;

much like was done in the last two lessons on forks and pins. Once again, just like with the pin, the line is extended past the piece in front (in this case the king) and all of the way down to a1.

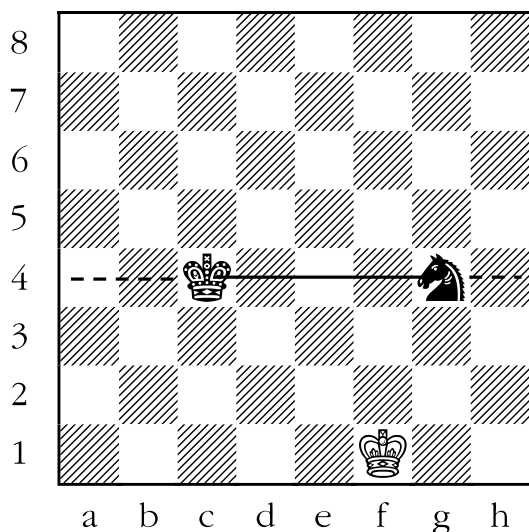
You should now have a vertical line running from the black knight, through the black king, and all of the way to a1.

If white could place a long-range vertical piece (i.e. queen or rook) on one of the squares that you have projected on the line past the knight (i.e. a3, a2, or a1) then you can skewer the knight against the king.

One warning, however. Even though placing a queen, for example, on a3 would skewer the knight, black could take the queen with the king, so a3 is a bad skewer in this instance.

In the previous diagram, white can attack the black king, and skewer the piece behind it, by moving his rook to a1. After the king moves out of check, white could then take the black knight for free.

That is all there is to skewers. Some readers may have noticed something amusing about the last three lessons. Let's look at the diagram below:

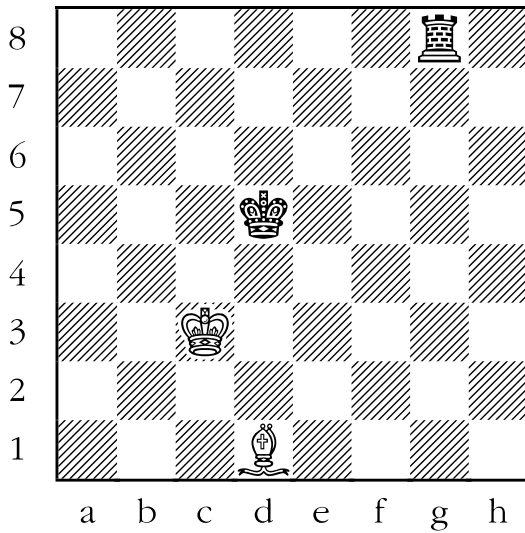


Mentally draw a horizontal line from a4 to h4. If white were to place a rook or queen on either e4 or f4, the king and the knight would be forked. If white were to place a rook or queen on h4, the knight would be pinned against the king. Finally, if white were to place a rook or queen on a4 the knight would be skewered. Drawing these imaginary lines really increases the possibility of finding tactics!

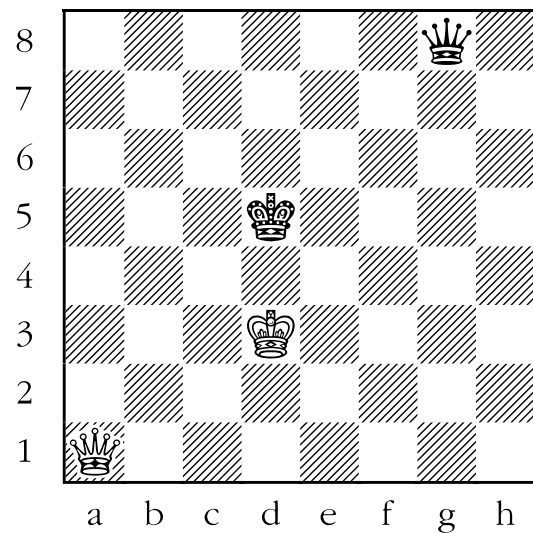
# Sheet 21-1: Make a Skewer

In the following diagrams, draw an arrow to show how white can skewer the black king against a black piece and win material.

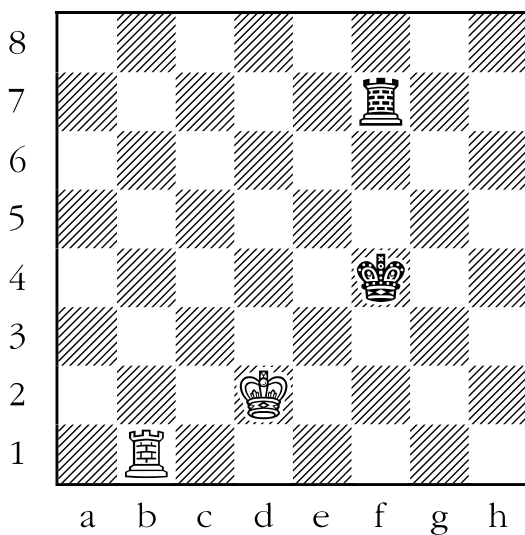
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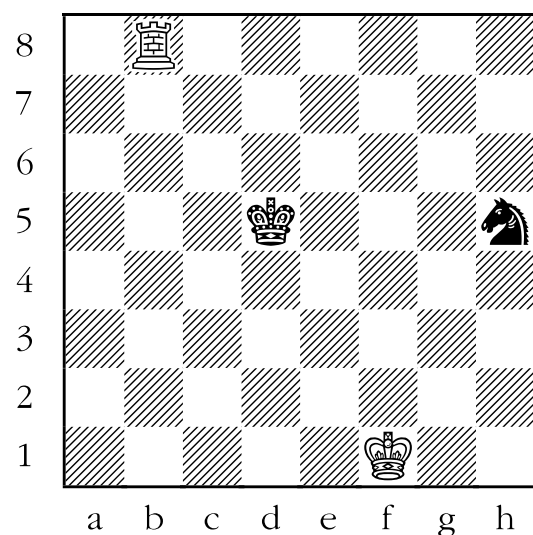
3.



2.

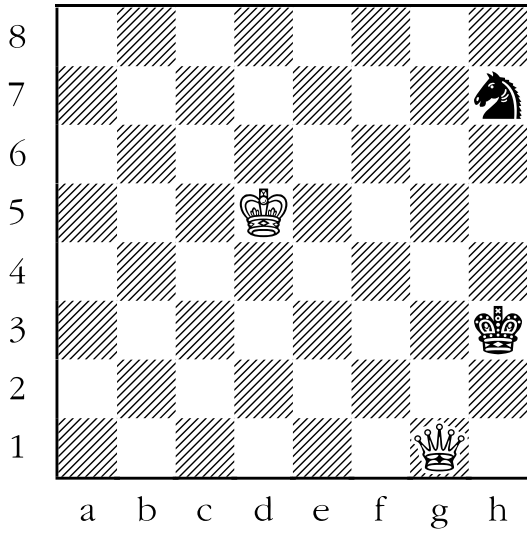


4.

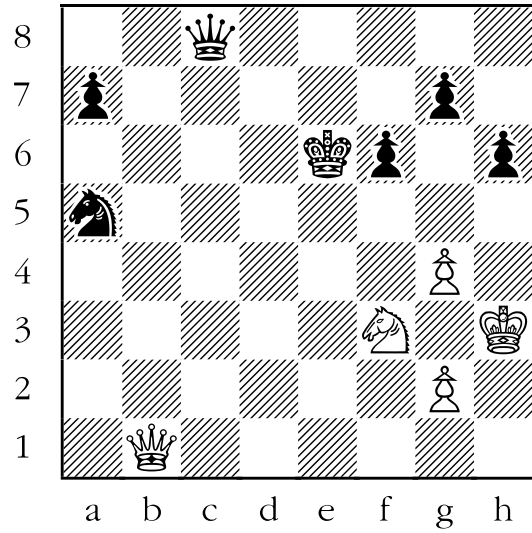


# Sheet 21-1: Make a Skewer

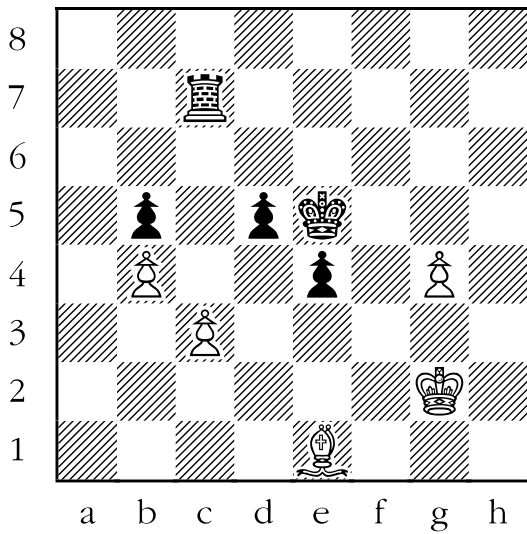
5.



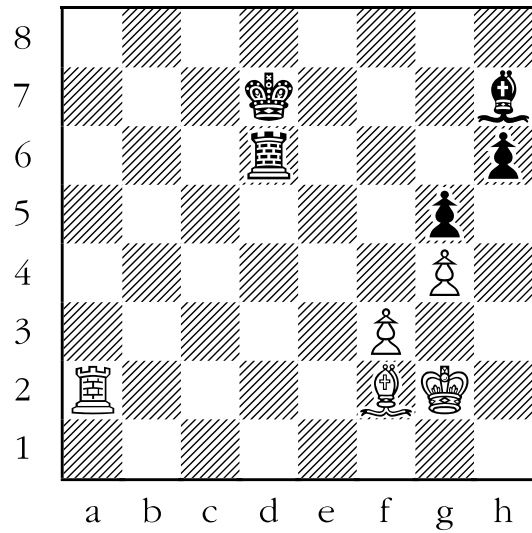
7.



6.

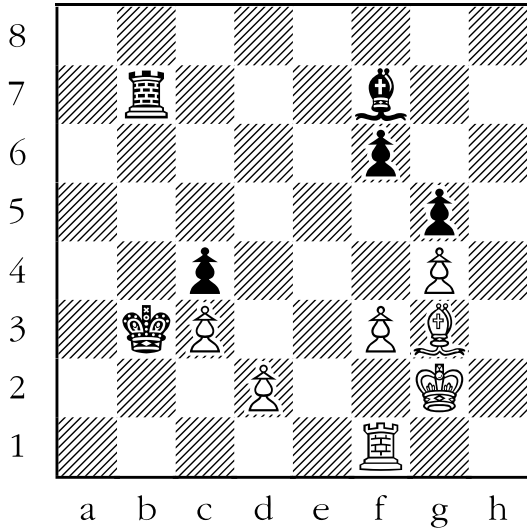


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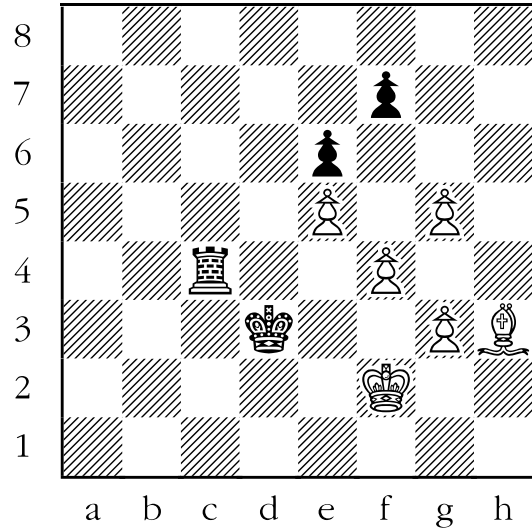


# Sheet 21-1: Make a Skewer

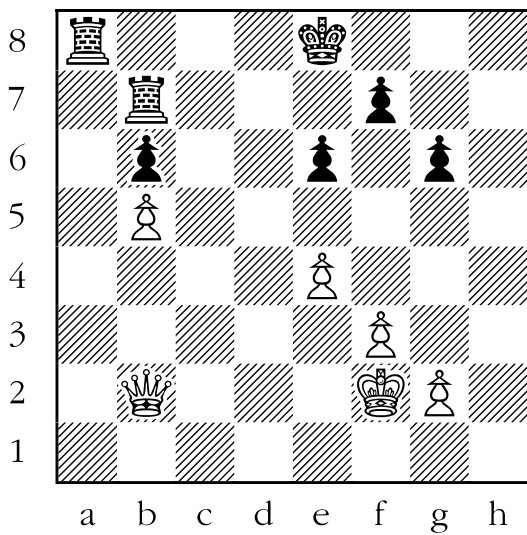
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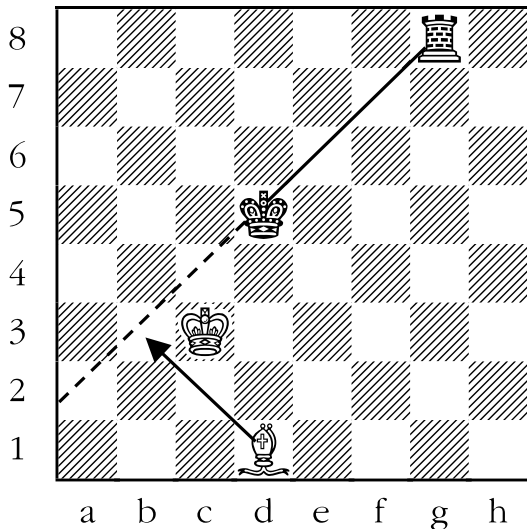
10.



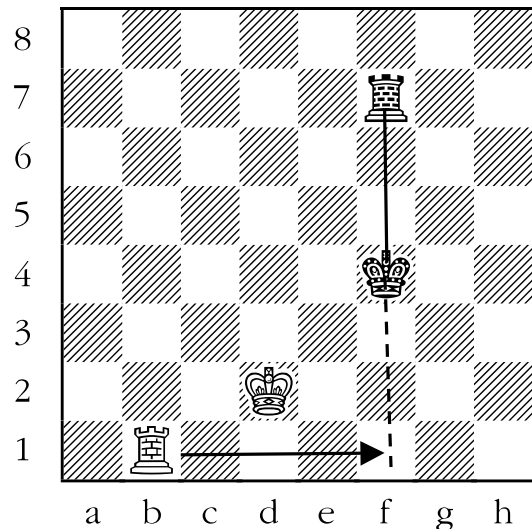
# Answer Sheet 21-1: Make a Skewer

In the following diagrams, draw an arrow to show how white can skewer the black king against a black piece and win material.

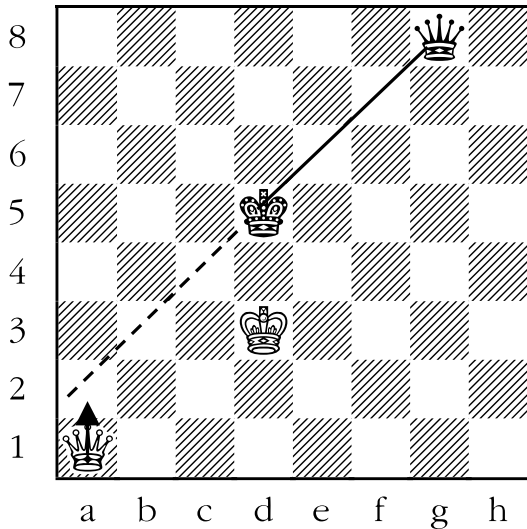
**1. ANSWER:** BISHOP TO b3. The black rook and the black king are lined up on the same diagonal. In your head, draw a line from the rook to the king, and then extend that line past the king, all of the way to the end of the diagonal. The following squares should have a line on them: g8 (where the rook is), f7, e6, d5 (where the king is), c4, b3, a2. If a piece that moves diagonally lands on one of c4, b3, or a2, then the rook is skewered. In this case, the bishop can move to b3, which attacks the king. The king must move away from the attack, but that would place the black rook under attack. On white's next move, he could then take the free rook.



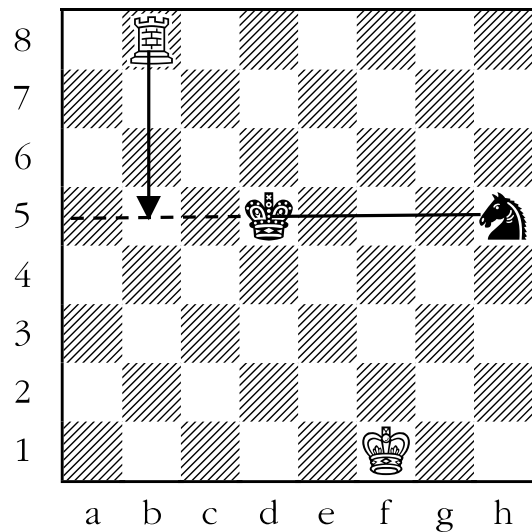
**2. ANSWER:** ROOK TO f1. The black king and the black rook are aligned vertically along the f-file (the squares f1 through f8). Draw a line in your head between the black rook and the king, and extend that line forward all of the way to f1. The squares that are covered by this line are: f7 (where the rook is), f6, f5, f4 (where the king is), f3, f2, and f1. If a piece which moves and attacks vertically can go to either f2 or f1 (but not f3 because the king would take it there), then white will be attacking the black king, and skewering the black rook behind it. In this position the white rook can move to f1, which checks the black king and wins the rook on f7.



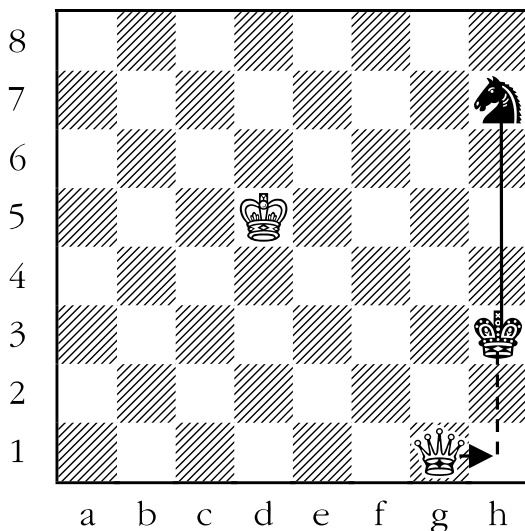
**3. ANSWER: QUEEN TO a2.** In this example, the black king and queen are lined up on the same diagonal. In your head, draw a line from the queen through the king, and then extend the line to the end of the diagonal. The squares that should be covered by this line are: g8, f7, e6, d5, c4, b3, and a2. If a long-range piece that moves and attacks diagonally were placed on one of c4, b3, or a2, the black king would be attacked, and the black queen would be skewered. White can move her queen to a2. After black moves the king out of check, white could then take the black queen.



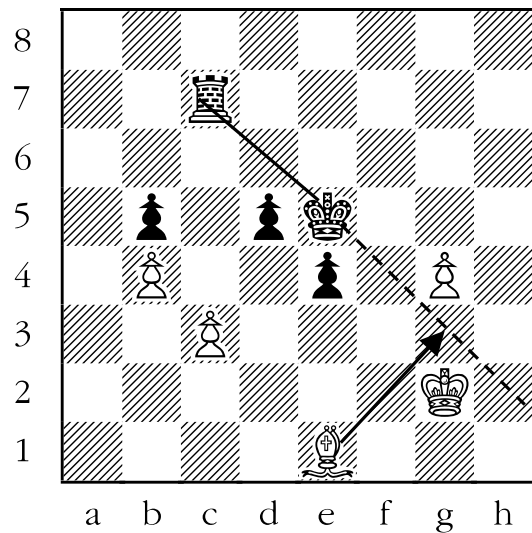
**4. ANSWER: ROOK TO b5.** The black king and knight are located on the same horizontal line (black's fourth rank). Draw a line from the knight through the king, and extend it to the end of the board. The squares covered by the line are: h5, g5, f5, e5, d5, c5, b5, and a5. If a piece which moved horizontally were to land on either b5 or a5 (but not c5, since the king would take any piece that went there), then the black king would be in check, and the black knight would be skewered. Here the white rook could do just that, by moving to b5.



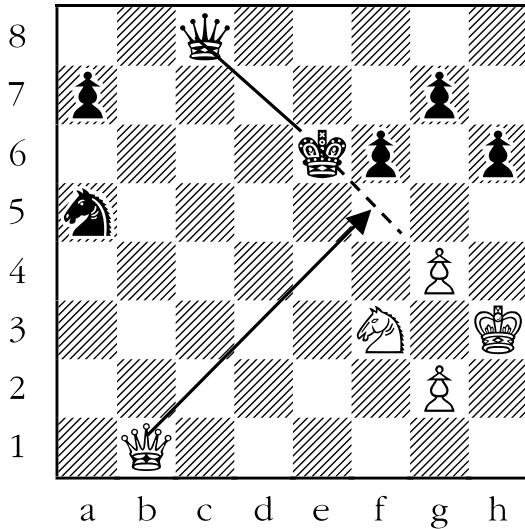
**5. ANSWER: QUEEN TO h1.** The black king and knight are on the same vertical line (the h-file). Draw a line from the knight through the king and beyond to the edge of the board. The line should cover the following squares: h7, h6, h5, h4, h3, h2, and h1. If a piece that moved vertically were to land on h1 (but not h2, since the king would take any such piece), then the king would be in check, and the knight would be skewered. In fact, the white queen would make the skewer by moving to h1.



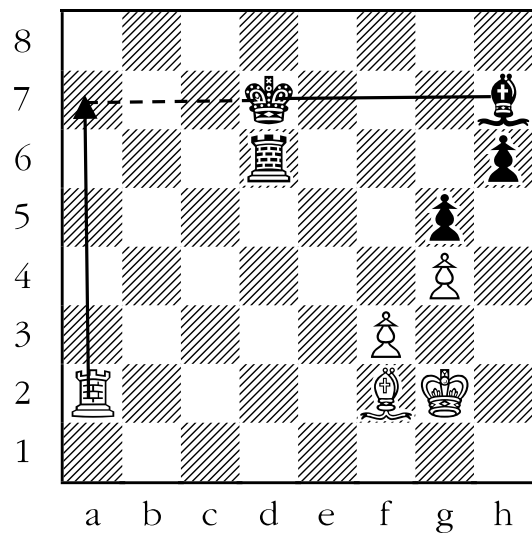
**6. ANSWER: BISHOP TO g3.** The only long-range piece still left of the white army is the dark-squared bishop on e1. The only black pieces on dark squares are the black rook and king. If the bishop were able to go to g3 or h2 on this turn, then the rook would be skewered. In this position, the bishop can make the skewer by going to g3.



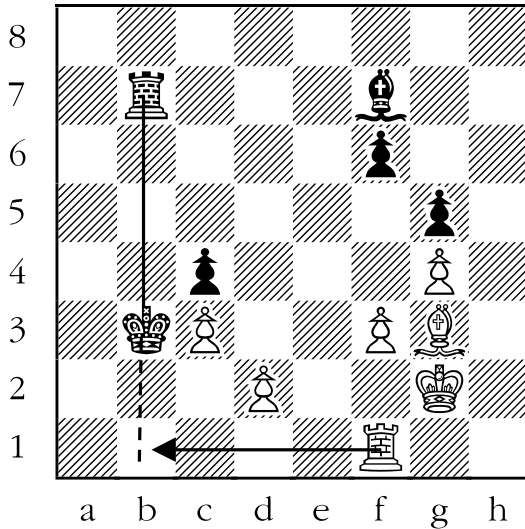
**7. ANSWER: QUEEN TO f5.** The only white piece with the ability to make a skewer in the diagram below is the queen. The black king and the queen are lined up diagonally. When the queen moves to f5, the king is in check, and the queen is skewered. The king can't take the queen because the queen is guarded by the white pawn on g4.



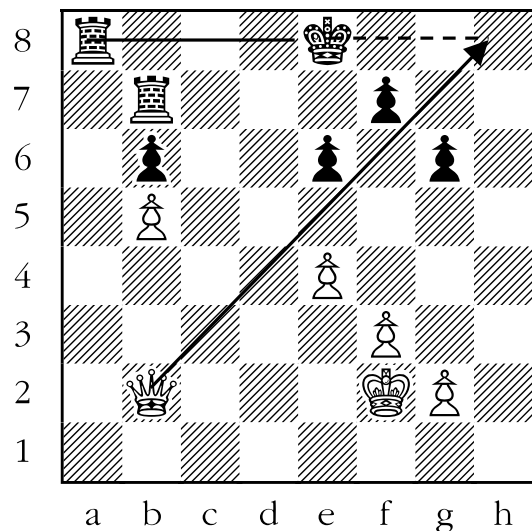
**8. ANSWER: ROOK TO a7.** Both the white bishop and the white rook are capable of making a skewer. After some reflection, it should be clear that no skewer on a diagonal is possible in the diagram below. But a skewer is definitely possible horizontally. In particular, the king and bishop are lined up on the black second rank. If white could move his rook to either a7 or b7, then the bishop would be skewered. Here the white rook can skewer the bishop by moving the rook to a7.



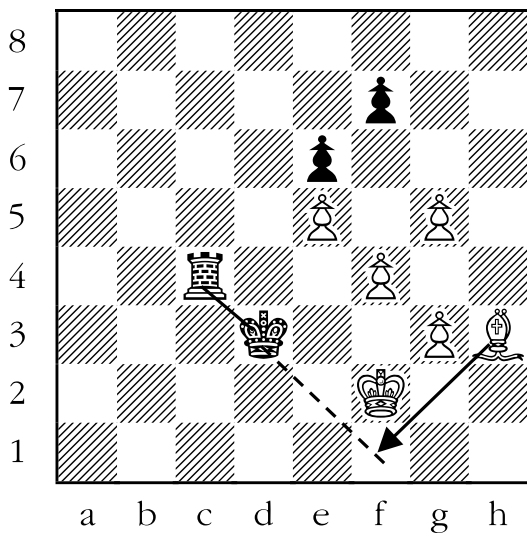
**9. ANSWER: ROOK TO b1.** In this diagram, white has two pieces that could theoretically make a skewer: the rook and the bishop. But no diagonal skewer is possible. A vertical skewer is possible if the white rook could go to b1 - and it can.



**10. ANSWER: QUEEN TO h8.** The example below is a bit tricky. It should be clear that of what remains of white's army, only the white queen is capable of making a skewer. But where does the queen go? To answer that question, look for black pieces that are lined up with the black king. The black rook on a8 is is. Draw a line in your head between the black rook through the king and extend it to h8. The following squares should be covered: a8, b8, c8, d8, e8, f8, g8, and h8. If the queen were theoretically capable of going to either g8 or h8, then the black rook would be skewered. In this case, the queen can go to h8, and skewer the rook. Long move, long skewer.



**11. ANSWER:** BISHOP TO f1. Only the white bishop can make a skewer in the diagram below. The bishop moves to f1, and skewers the rook. After the king moves out of the way (say to d4, for example) the bishop could take the rook. Even though the king could then recapture the bishop, white would still gain five points (the rook) for three points (the bishop), for a net gain of two points. Even though white did not win anything for free, he still won material using a skewer.



## Lesson 22

### The Discovered Check

(Sheet 22-1)

#### Objective:

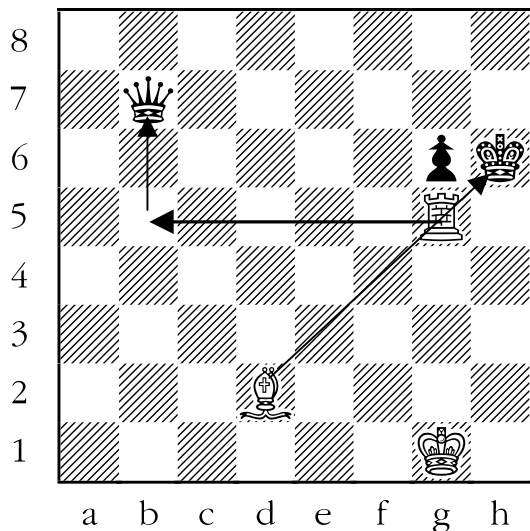
- Teach students “the discovered check”, the fourth elementary tactic.

#### Skills developed:

- Comparing similar possibilities to find the best one.

Despite what you might think from its name, a discovered check is not when one or both players “discover” that someone has been in check for the last couple of moves. Perhaps it would be more accurate to call them “**uncovered**” checks.

Discovered checks occur when a piece moves out of the way, and in doing so, “uncovers” a check from a friendly piece to the enemy king. Here is a simple example:



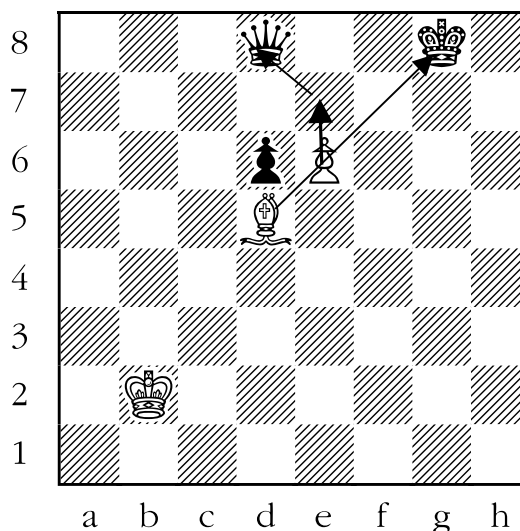
Notice that the white bishop would be attacking the black king, except that the white rook is in the way. No matter where the white rook goes on this turn, the bishop would be attacking the king. White can move his rook wherever he wants without fear of it being captured, since black’s first

priority would be getting his king out of check.

In the preceding diagram, white’s best move is to transfer the rook from g5 to b5. The white rook is attacking the queen, and the queen can’t take it because, as mentioned above, black’s first priority is to get his king out of check. After black gets his king out of check (e.g. by moving it to h7), white could then take the black queen for free.

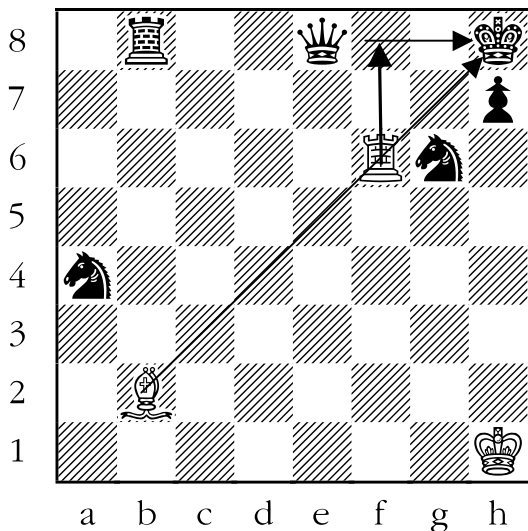
Just like with pins and skewers, only long-range pieces can deliver the discovered check. However, any piece can be the one that “uncovers” the check.

Even the lowly pawn, as shown below:

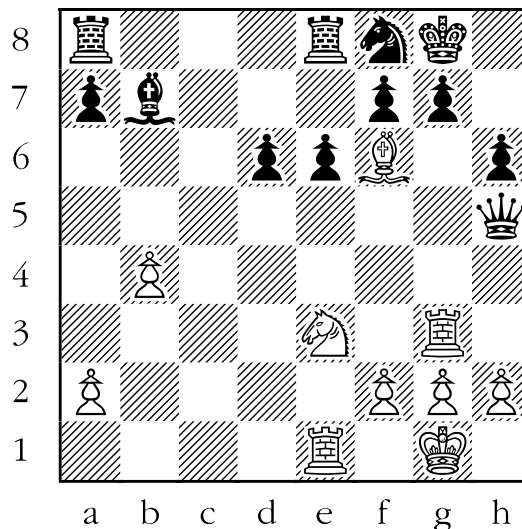


White can attack black’s king with the bishop by moving the pawn from e6 to e7. Meanwhile, the pawn is attacking the black queen. Black has to answer the check first, and that gives white enough time to take the black queen.

A special kind of discovered check is the **double check**. In the double check, both the piece that is behind, and the one in front, give check to the king. An example of the power of the double check is shown below:



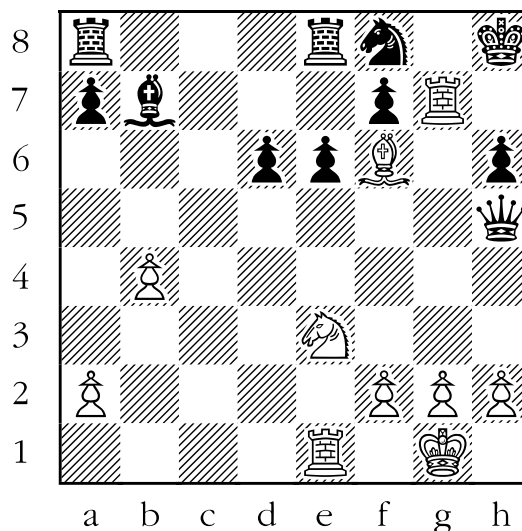
Here is a famous example underlining the power of the discovered check. Black had at one time held the title of World Chess Champion.



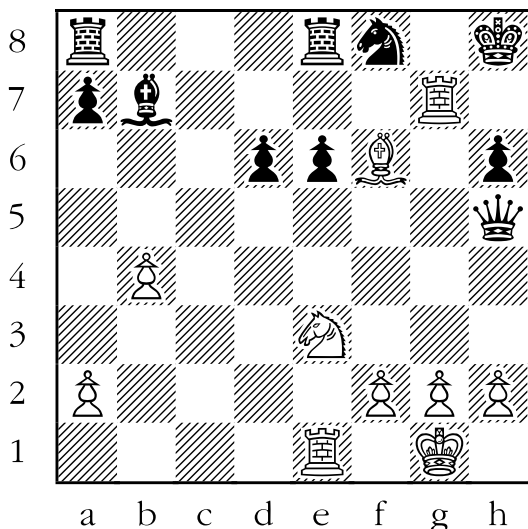
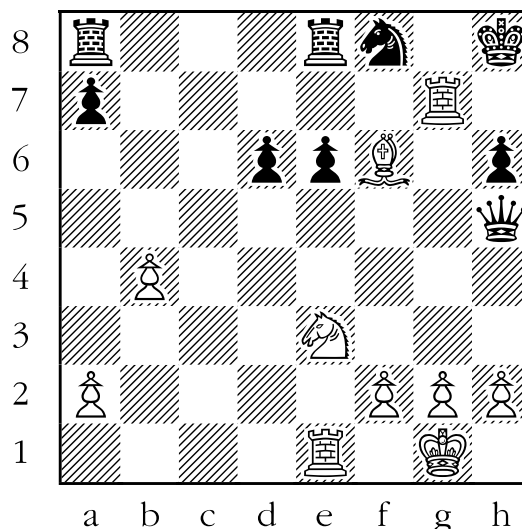
White is down by a lot of material (twenty-one points to eight), but can win the game in one move by playing rook to f8. The white rook and the white bishop attack the black king. Neither the knight on a4, nor the rook on b8, can take the bishop because the white rook would still be attacking the black king. Similarly, neither the queen on e8, nor the knight on g6, can take the white rook because the white bishop would still be attacking the king.

White is down a queen and a pawn, which he had sacrificed to set up a series of discovered checks. From the position above, the game continued with white taking the pawn on g7 with his rook, giving check to the black king. Black was forced to move his king to h8, as the only way to get out of check. Now white was ready to begin the discovered checks.

In fact, the only way to answer any double check is to move the king out of the way of both checks. Unfortunately for black in this instance, there is no place that he can move his king where either the white bishop or the white rook will not still be attacking it, so he is checkmated.

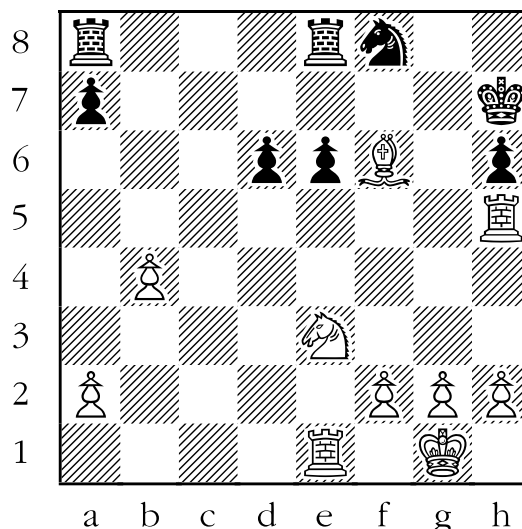


From the position above, white took the pawn on f7. Black was forced to move his king back to g8 to get out of check from the bishop on f6, which had been “uncovered” by the movement of the white rook from g7 to f7. Then white moved his rook back to g7, attacking the black king. Black had to move his king back into the corner. The position below was reached. Notice that the only difference between this diagram and the previous one is that the black pawn on f7 is missing.



White now took the bishop on b7, once again “uncovering” a check from the white bishop on f6 to the black king on h8. Black was, once again, forced to move his king to g8 in order to get it out of check from the white bishop. White returned to g7 with his rook, which caused the black king to run back into the corner. We now get to the position below. The position is identical to the last one, except that another piece is missing, this time the black bishop on b7.

White now switched directions, and moved his rook to g5, “uncovering” a check by the bishop on f6 to the king on h8 for the third time. Black had to move his king out of check to h7, the only place it could go. Then white took the black queen.

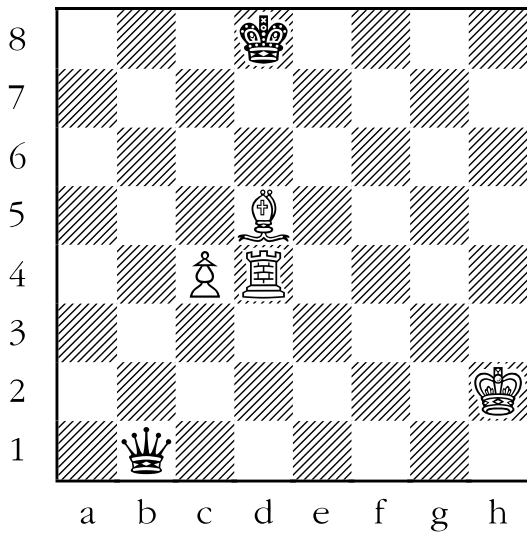


White had won a queen, bishop, and pawn because of the discovered checks, and there was absolutely nothing black could do to save himself. White won the game shortly thereafter. Remember that if a player who had been World Champion could lose to discovered checks, anybody could!

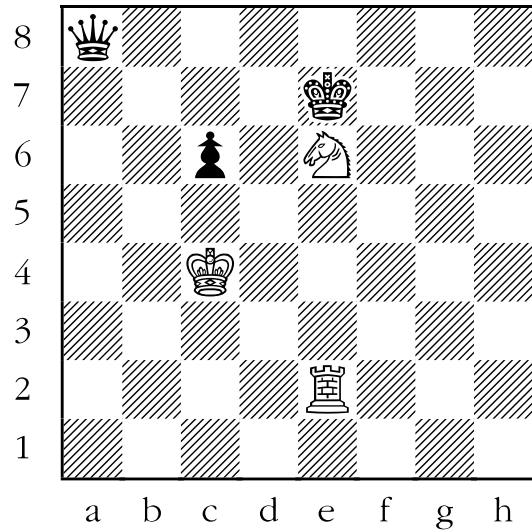
# Sheet 22-1: Make a Discovered Check

White can move and make a discovered check that attacks black's queen and wins it on the next move. In the following diagrams, draw an arrow to show how.

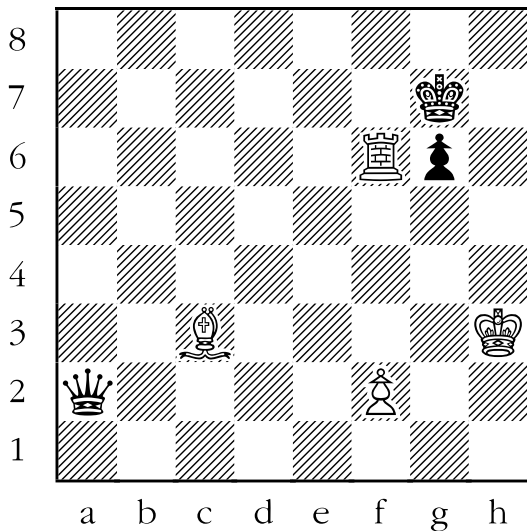
1.



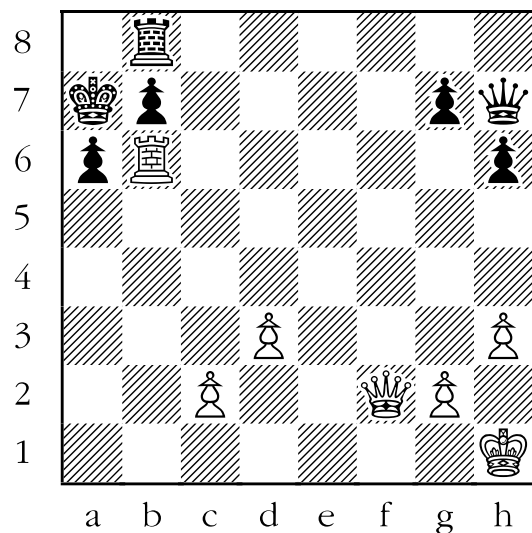
3.



2.

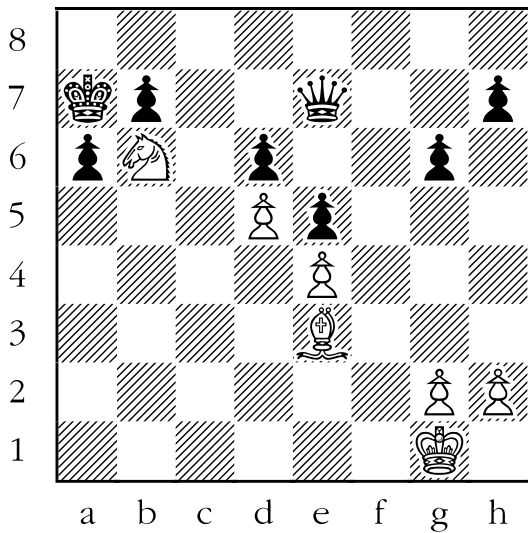


4.

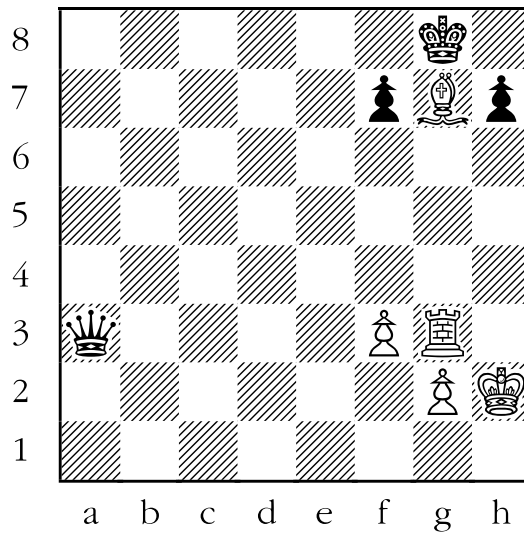


# Sheet 22-1: Make a Discovered Check

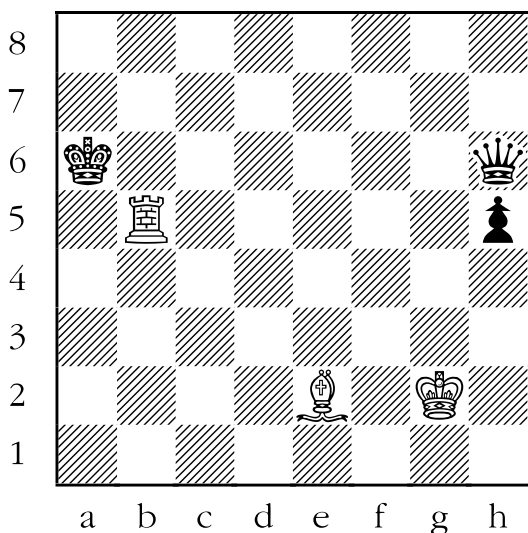
5.



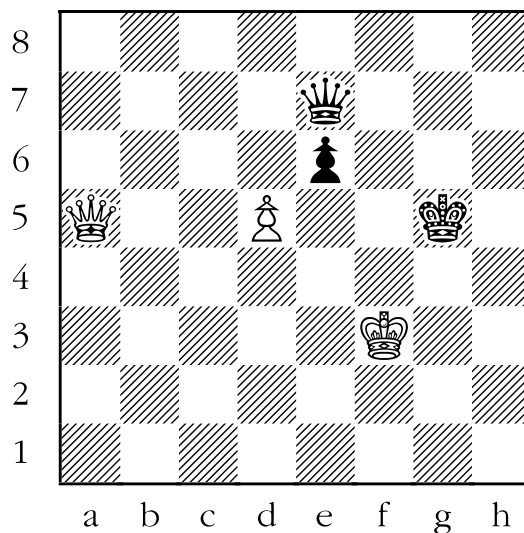
7.



6.

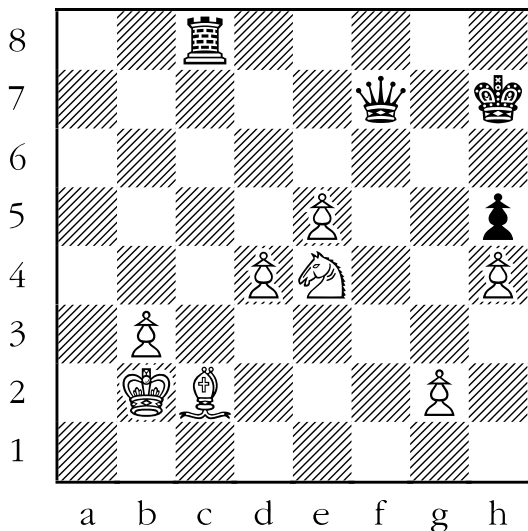


8.

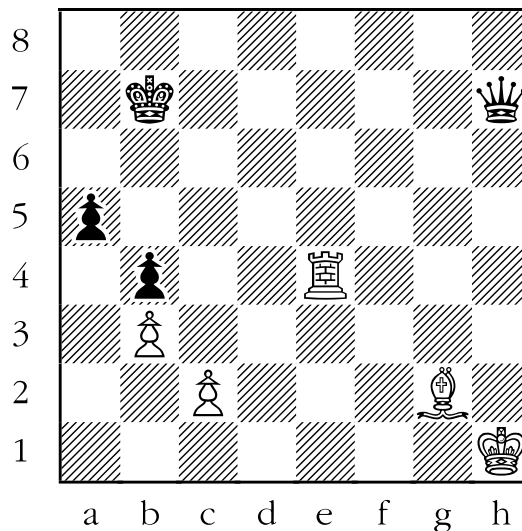


# Sheet 22-1: Make a Discovered Check

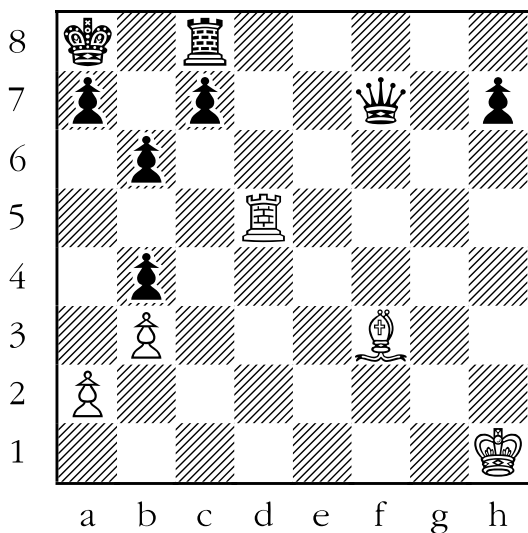
9.



11.



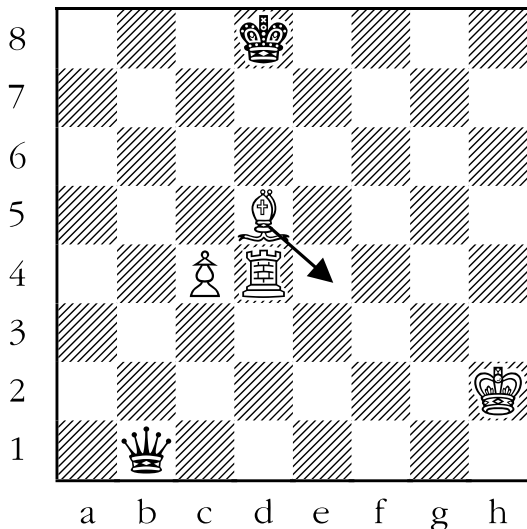
10.



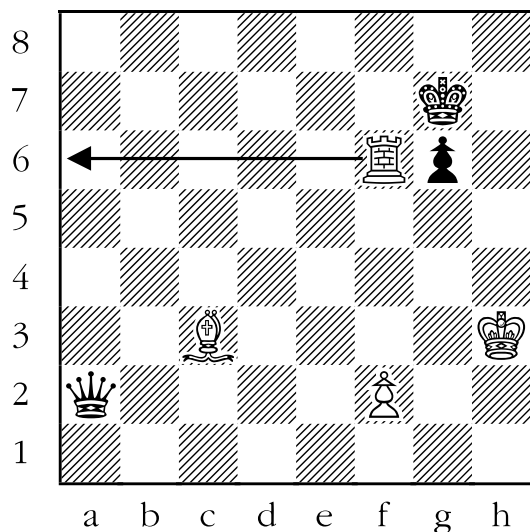
# Sheet 22-1: Make a Discovered Check

White can move and make a discovered check that attacks black's queen and wins it on the next move. In the following diagrams, draw an arrow to show how.

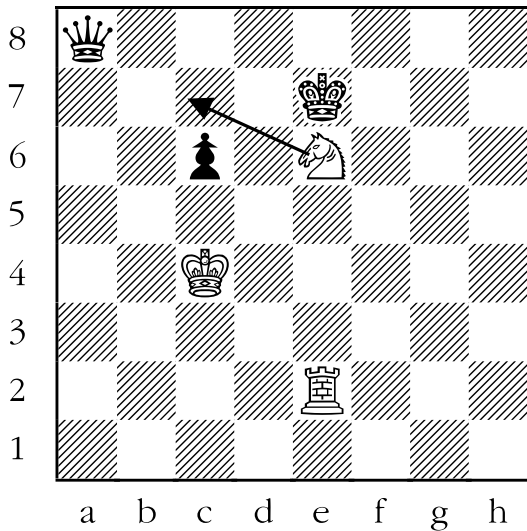
**1. ANSWER: BISHOP TO e4.** In the diagram below, if the white bishop weren't on d5, then the black king would be in check from the white rook. In fact, wherever the white bishop moves to on this turn (ten different choices), black will be in check. The question is, from which of these ten squares is the queen attacked? The answer is e4. Therefore, if bishop to e4, black has to move his king because of the discovered check from the rook, and then the bishop can take black's queen for free next move.



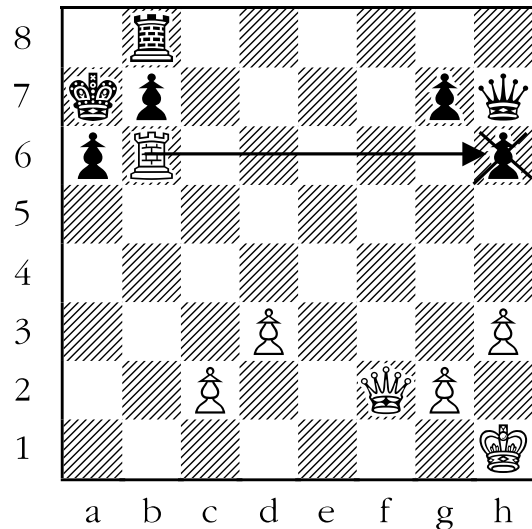
**2. ANSWER: ROOK TO a6.** In the next diagram, the white rook on f6 is preventing the bishop on c3 from checking the king on g7. If the rook were to move anywhere, the king would be in a discovered check from the white bishop. The key is to move the rook to a square that attacks the black queen. That square is a6. After the king moves out of check from the white bishop, the rook can then take the queen for free.



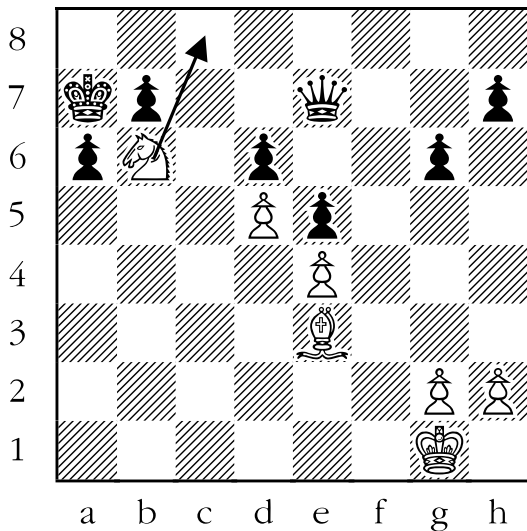
**3. ANSWER: KNIGHT TO c7.** Below, if the knight weren't on e6, then the white rook would be attacking the black king. The knight has many moves to choose from, but only one, moving to c7, attacks the black queen. After the king moves out of check from the rook, the knight can take the black queen for free.



**4. ANSWER: ROOK TAKES PAWN ON h6.** The black king would be in check from the white queen, except that the white rook is in the way. Wherever the rook moves to, the black king will be in check. The key is to find a square where the rook attacks the queen on h7. The only square where this will happen is h6. The rook takes the pawn on h6. Black is forced to remove his king from the check of the queen on f2, either by moving the king to a8, or by blocking the check by moving the pawn to b6. In either case, the rook takes the queen on h7 for free.



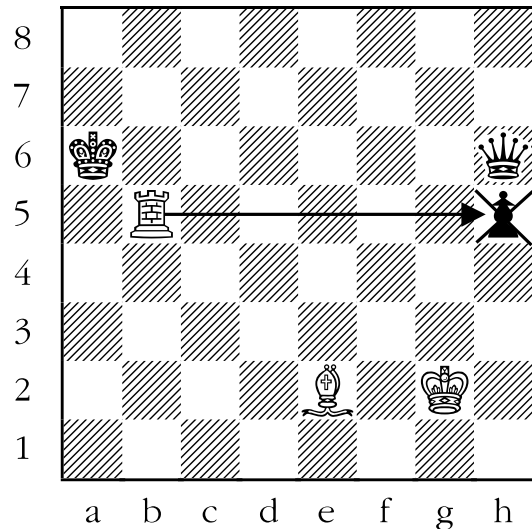
**5. ANSWER: KNIGHT TO c8.** The king would be in check from the bishop on e3, except that the knight on b6 is in the way. If the knight moves to c8, the queen would be attacked by the white knight. Meanwhile, both the bishop and the knight would attack the black king. This is a *double check*, a type of discovered check. After black moves his king out of check, white can take the black queen for free.



**6. ANSWER: ROOK TAKES PAWN ON h5.** White seems to have two ways of winning the black queen via a discovered check from the bishop on d3: the rook could move to b6, or take the pawn on h5.

The problem with the first choice is that the black king could remove the threat to both itself and the black queen by taking the rook on b6.

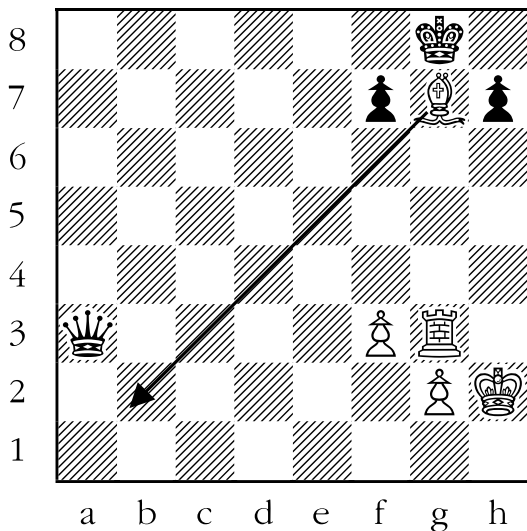
Only the second choice, taking the pawn on h5 with the rook, leads to the desired result. After the king moves out of check from the bishop, the rook can take the queen for free.



**7. ANSWER: BISHOP TO b2.** In the next diagram, white appears to have two possible ways to win black's queen, by moving the bishop to either f8 or b2.

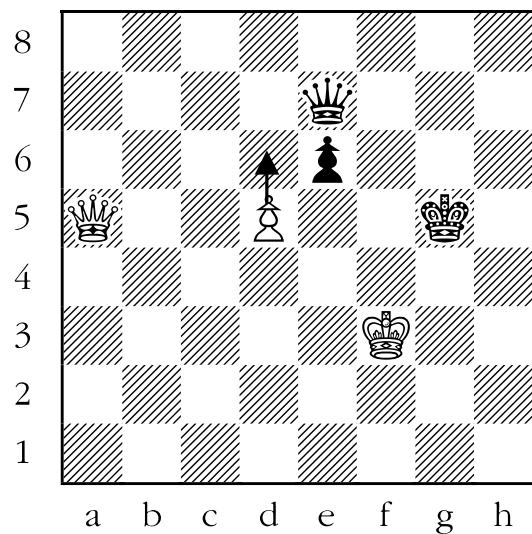
Unfortunately, the idea of moving the bishop to f8, attacking the queen while discover checking the black king, can profitably be answered by taking the bishop on f8 with the king. The king has removed itself from check, and saved the black queen from being captured.

The correct way to win the queen is by playing the bishop to b2. The king must remove itself from check by the rook, and after it does, white can then take the queen with the bishop.



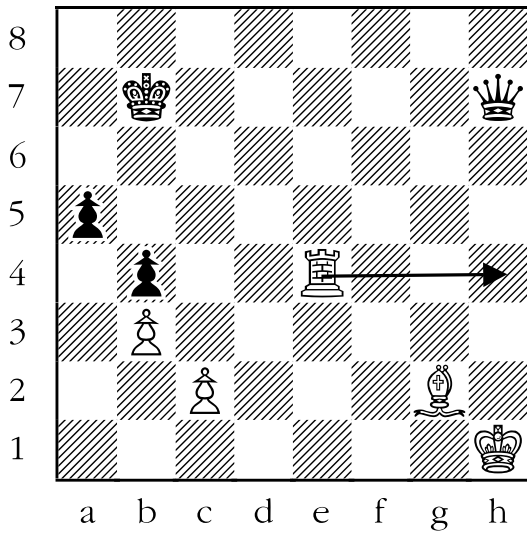
**8. ANSWER: PAWN TO d6.** The white queen would be attacking the black queen except that the white pawn is in the way.

The pawn has two possible moves. Capturing the black pawn is not so good, since black could move his king to f6 and then take the white pawn next move. A better move for white is to move his pawn to d6. The white queen would be attacking the king, and the white pawn would be attacking the black queen. After black gets out of check, white could then take the queen with the pawn.





**11. ANSWER: ROOK TO h4.** White is in check from the black queen. White can simultaneously block the check to white's king, check black's king, and attack the black queen with the same move. That move is rook to h4. After black gets his king out of check, white can take the black queen for free. Incredible, but true!



# Lesson 23

## “En Passant”

### (Sheet 23-1)

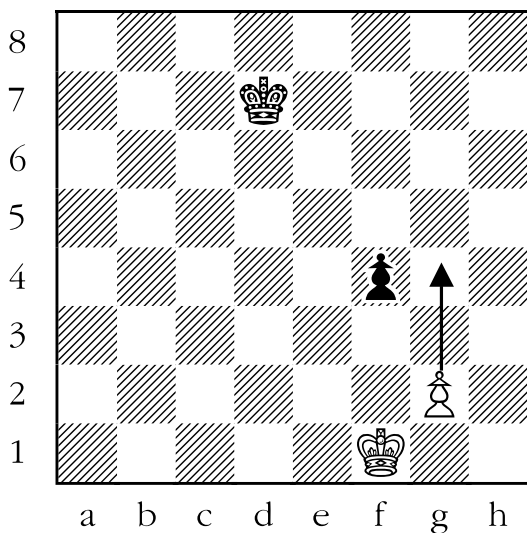
**Objective:**

- Teach students the “En Passant” rule.

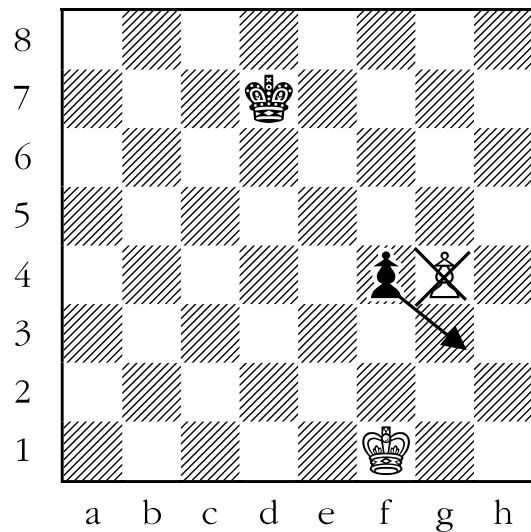
**Skills Developed:**

- Judgement.

Probably no rule concerning chess causes more confusion than the “**En Passant**” Rule. “En passant” is a French term for “in passing”, which is a pretty good description of what the rule is all about. Here is an example of “en passant”:



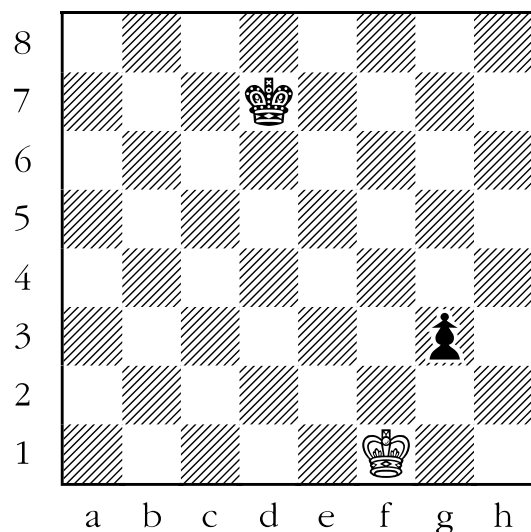
It is white’s move, and he decides to move the pawn, which has yet to move in the game, from g2 up to g4, reaching the position at the top of the next page:



The two pawns are now right beside each other. Normally, a pawn would not be able to take a pawn that is sitting right beside it.

**In this instance though, black is allowed to pretend as if the white pawn had moved one square instead of two, and take it “en passant”.**

This would produce the following position:

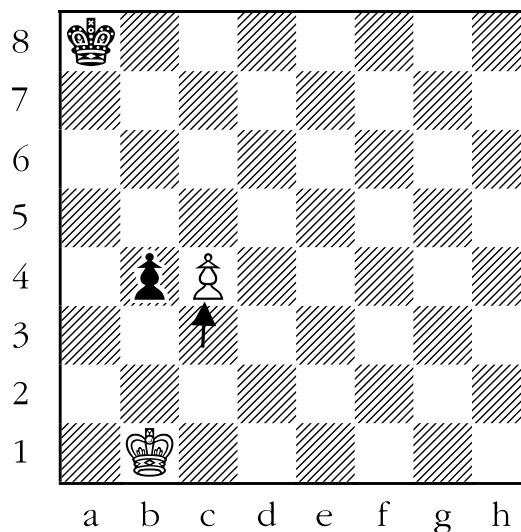


The game would continue from there.

There are a number of rules specifically concerning “en passant”:

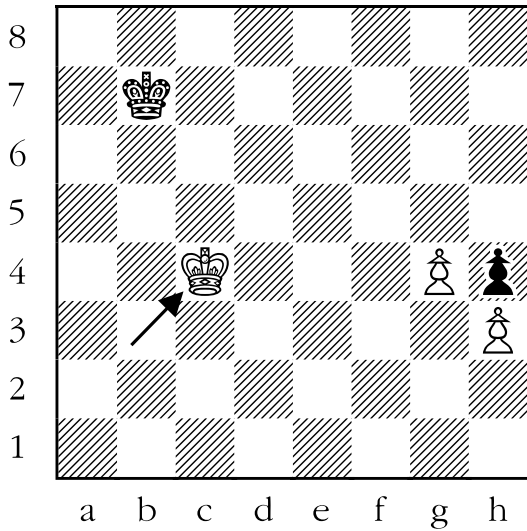
1. **“En passant” capturing can only be done by pawns, and only to pawns.** A player can’t take the opponent’s queen, for example, “en passant”. Nor may a player take the opponent’s pawn with their rook, for example, “en passant”. To repeat, all “en passant” captures are restricted to battles between two pawns.
2. A pawn may take the opponent’s pawn “en passant” if that pawn has just moved **two squares** on one turn. If the pawn has moved only one square, then the pawn can’t be taken “en passant”.
3. **The option to capture “en passant” must be exercised immediately, or the option is forfeited for that pawn.** You can’t take a pawn “en passant” that has been sitting there for more than one move.
4. **Only pawns that are sitting horizontally beside each other may take “en passant”.**

Let’s see some typical misunderstandings regarding “en passant” capturing.



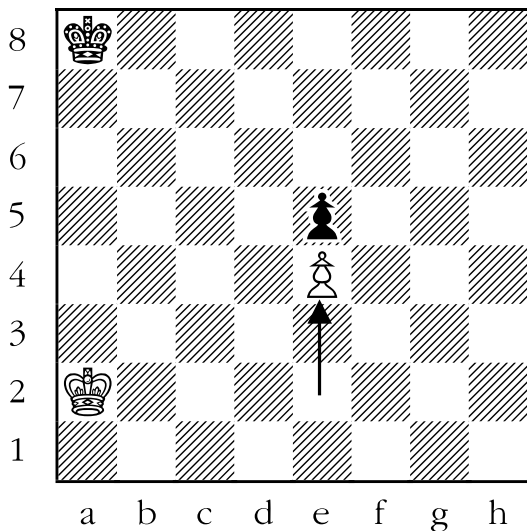
White has just moved his pawn from c3 to c4 on the very last move. Black can’t take the pawn “en passant” because the pawn had previously moved off of the second row (or “rank”), and therefore didn’t (and couldn’t) move two squares at once. Only pawns that have moved two squares are candidates to be captured “en passant”.

Another example:



White has just moved his king from b3 to c4. Black wants to take the white pawn “en passant”, but can’t do so because white’s most recent move wasn’t moving the pawn from g2 to g4, but was with the white king, as mentioned above. The option to take “en passant” must be exercised immediately, or can’t be exercised at all against that particular white pawn.

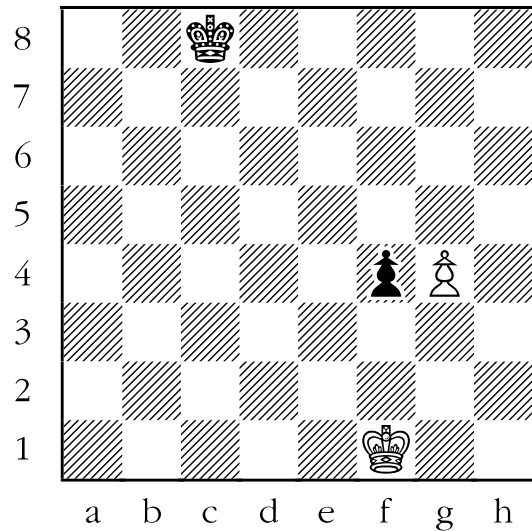
Here is yet another example:



White has just moved his pawn from e2 to e4. Black can’t take the pawn “en passant” because the two pawns are sitting

vertically from one another, rather than horizontally.

Once students have mastered the material about “en passant” given above, there is usually only one thing about it that they get confused about:

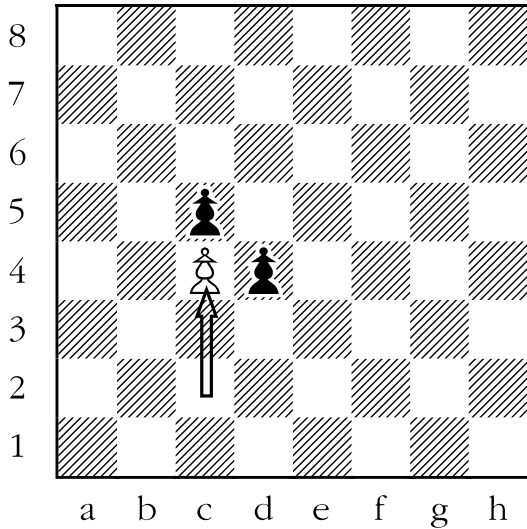


White moved his pawn to g4, and black decided to move his king, rather than take the pawn “en passant”. White now decided that HE would exercise the right to the “en passant” rule, and take the black pawn. This is not allowed, since the black pawn did not just move two squares. The “en passant” rule is a one-way street. If your opponent doesn't capture your pawn “en passant” you cannot turn around and capture that particular pawn “en passant” with your pawn. I hope that’s clear.

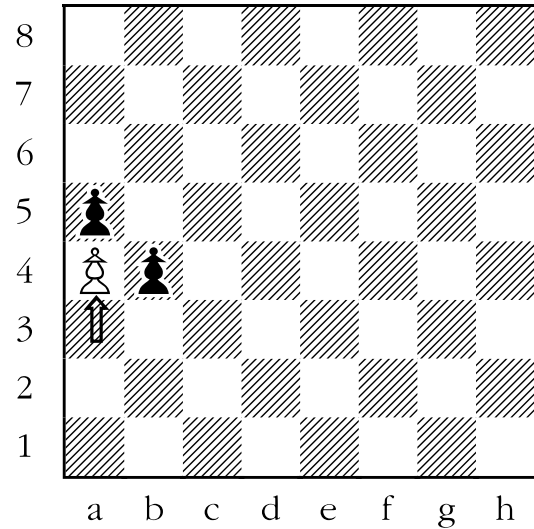
# Sheet 23-1: En Passant

In the following diagrams, circle all of the black pawns that can take “en passant” the white pawn that just moved (indicated by the ↑ arrow). If no black pawn can take “en passant” write NONE above the diagram.

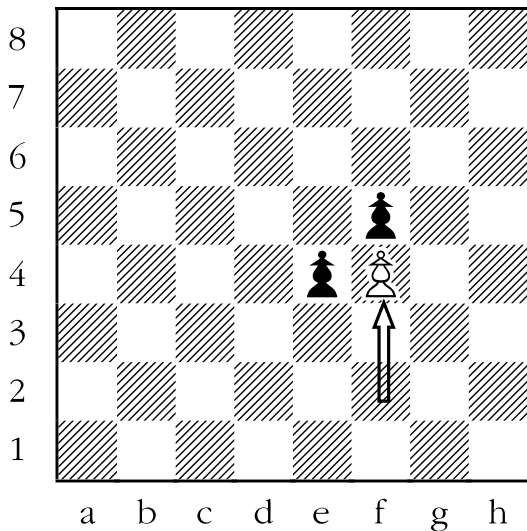
1.



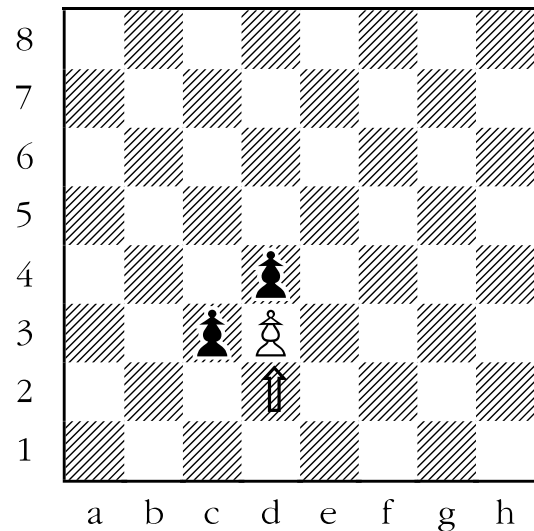
3.



2.

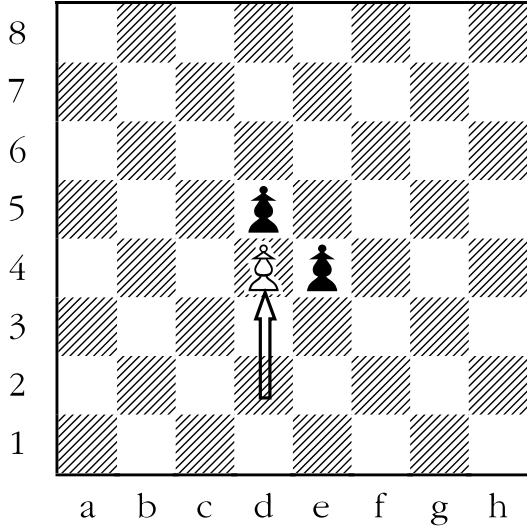


4.

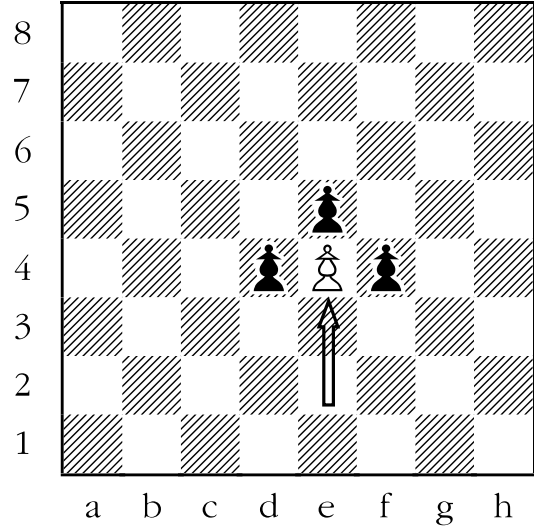


# Sheet 23-1: En Passant

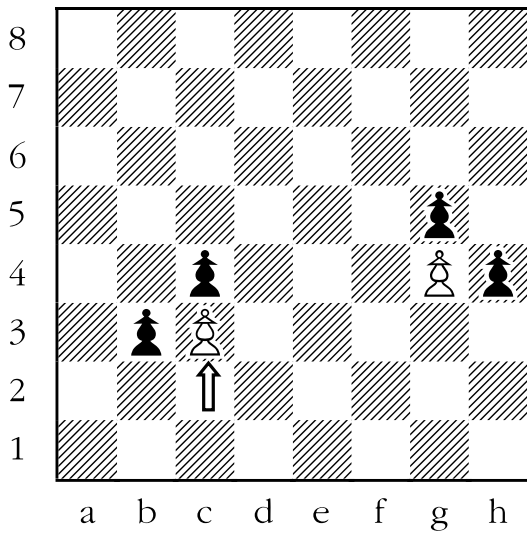
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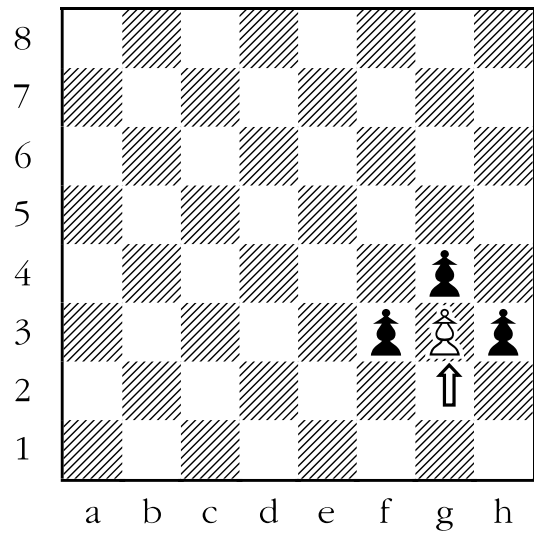
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6.

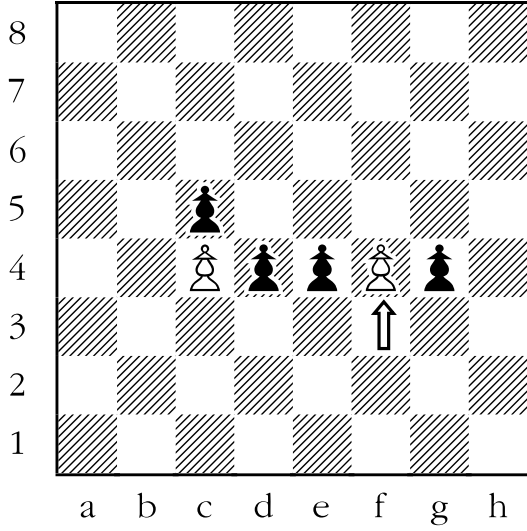


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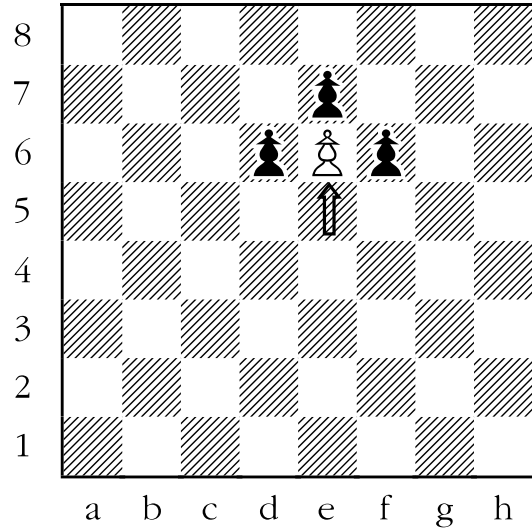


# Sheet 23-1: En Passant

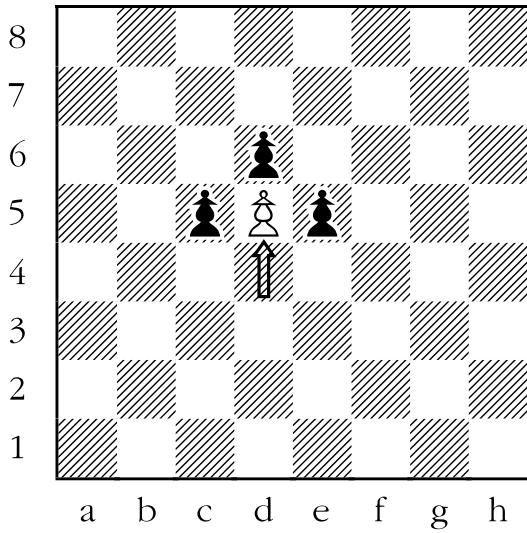
9.



11.



10.

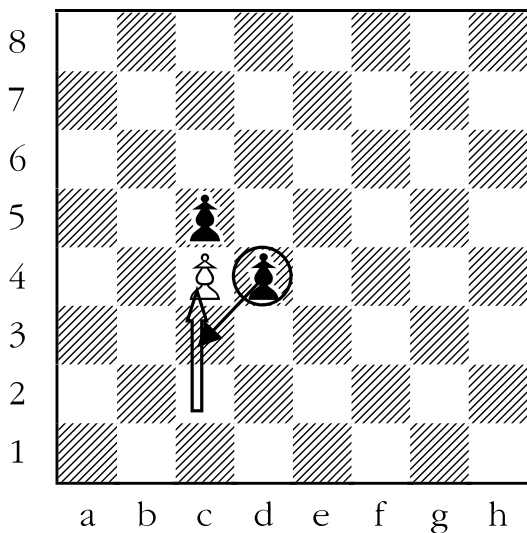


# Answer Sheet 23-1:

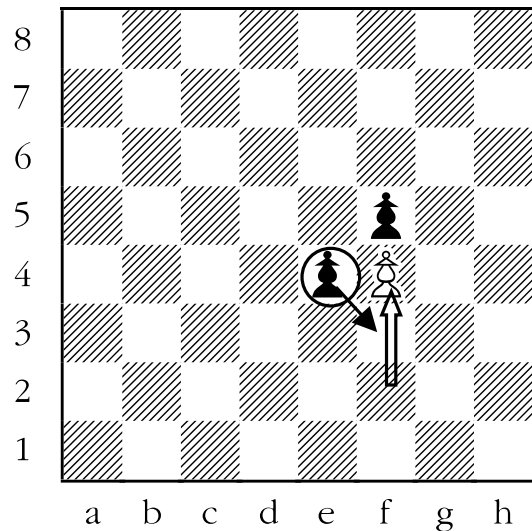
## En Passant

In the following diagrams, circle all of the black pawns that can take “en passant” the white pawn that just moved. If no black pawn can take “en passant” write NONE above the diagram.

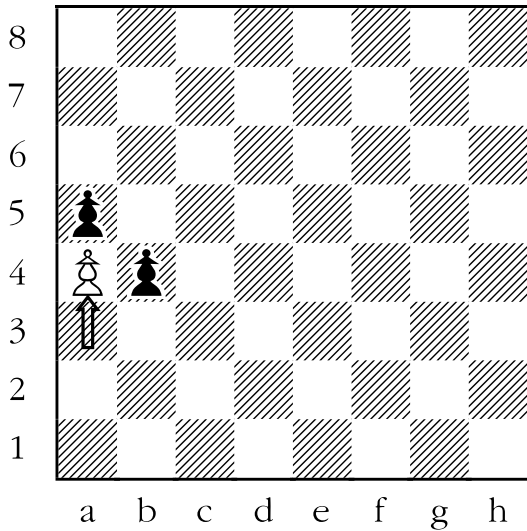
**1. ANSWER:** White’s pawn has just moved two squares, from c2 to c4. The pawn on d4 can take the white pawn “en passant” on this turn and this turn only. In order to capture “en passant”, black could pretend that the white pawn had only one square, to c3, and capture the pawn as if it were there. The pawn on d4 would then end up on c3.



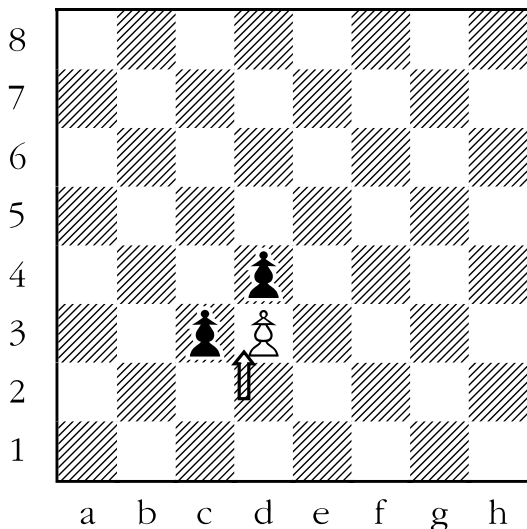
**2. ANSWER:** The white pawn has just moved two squares, from f2 to f4. The pawn on e4 could take the pawn on this move, but if black chose not to take the pawn “en passant”, he could not later take the pawn “en passant”. In order to complete the “en passant” capture in this instance, black would remove the white pawn from f4, and move the black pawn from e4 to f3. In a sense, it would be identical to if the pawn had moved from f2 to f3 and been captured by the black pawn on e4.



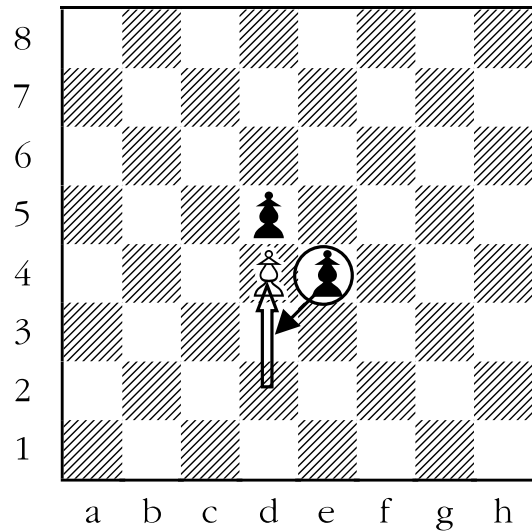
**3. ANSWER: NONE.** Here the white pawn has just moved one square, from a3 to a4. No “en passant” capture is possible, since “en passant” only occurs in cases where the enemy pawn has advanced two squares.



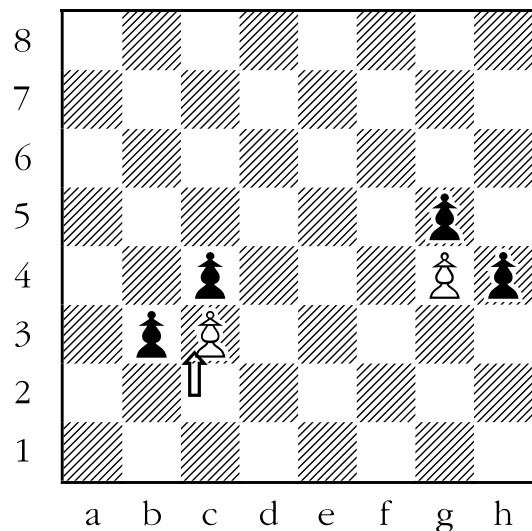
**4. ANSWER: NONE.** The white pawn has just moved one square, from d2 to d3. “En passant” capturing is not possible here, since the pawn did not move forward two squares.



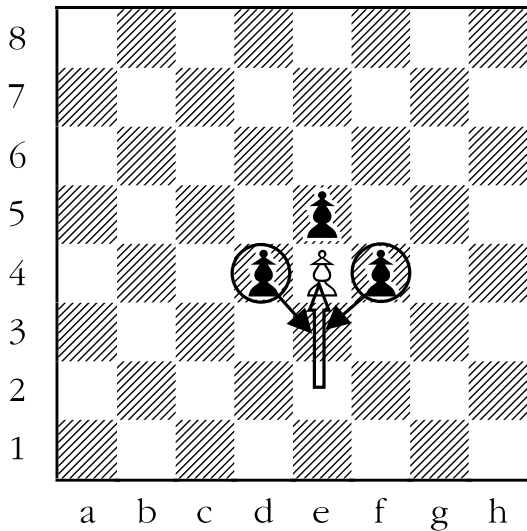
**5. ANSWER:** The pawn on d4 has just advanced two squares, from d2 to d4. The black pawn on e4 can take the pawn on d4 “en passant”. If black does not exercise this right, he can never take the pawn on d4 “en passant”.



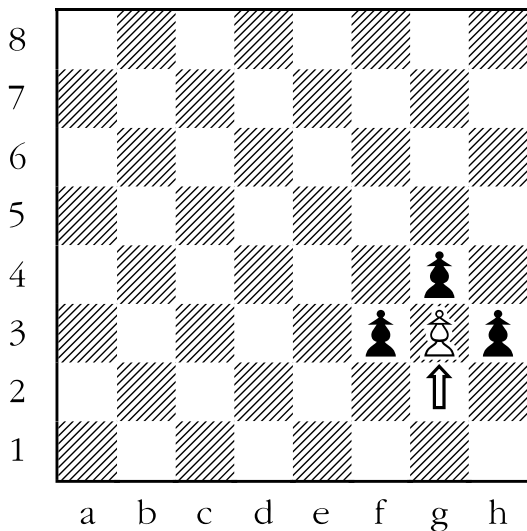
**6. ANSWER: NONE.** The white pawn on c3 had just moved from c2. Black can't take this pawn because it did not move two squares. Nor may black take the pawn on g4, because white did not move this pawn on his most recent move.



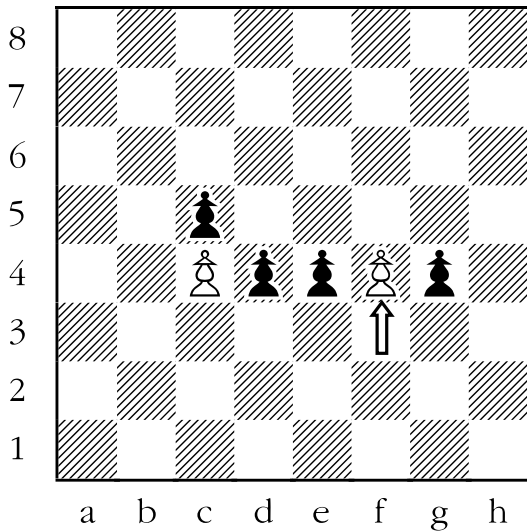
**7. ANSWER:** White's pawn has just moved two squares from e2 to e4. Black may take the pawn "en passant" with either of the pawns on d4 or f4 on this turn. If black does not exercise this option, he can't later take this pawn "en passant". Whichever pawn black chooses, that black pawn will end up on e3.



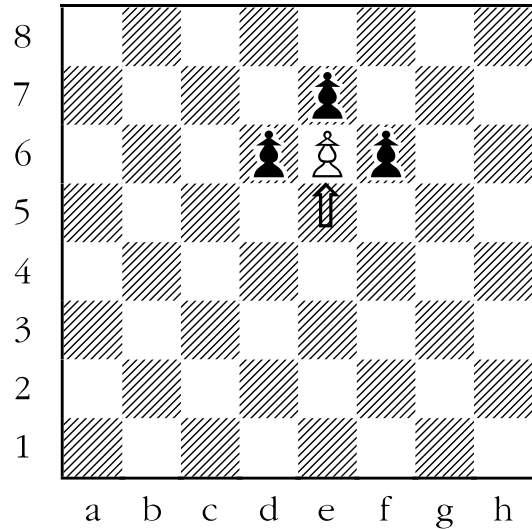
**8. ANSWER:** NONE. White's pawn has just moved one square, from g2 to g3. No pawn can take this pawn "en passant" because such captures only occur if the enemy pawn has moved two squares.



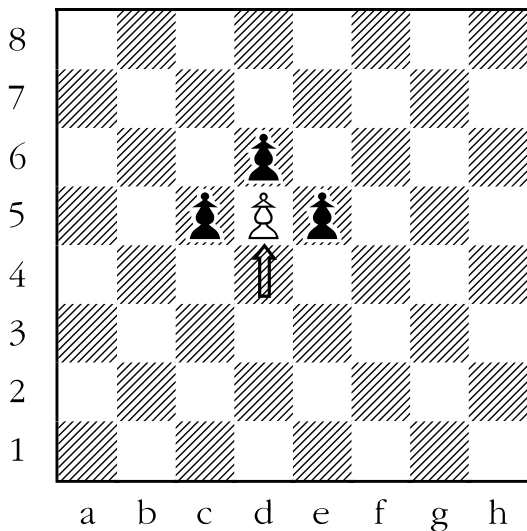
**9. ANSWER:** NONE. The white pawn has just moved from f3 to f4. Neither of the black pawns on e4 or g4 can take this pawn because it has just moved one square, not two. Further, the black pawn on d4 can't take the white pawn on c4 because it did not just arrive there, but must have done so sometime earlier.



**11. ANSWER:** NONE. The white pawn has just moved one square, from e5 to e6. None of the black pawns can take the white pawn because it has just moved one square. "En passant" capturing occurs only if the pawn moves two squares.



**10. ANSWER:** NONE. The white pawn has just moved one square from d4 to d5. No black pawn may take this pawn "en passant". Such captures occur only if the enemy pawn has just moved two squares.



## Lesson 24

### Checkmate with two Major Pieces (Sheet 24-1)

#### Objective:

- Teach students to checkmate a lone king with: two queens; a queen and a rook; two rooks

#### Skills Developed:

- Planning.
- Carrying out a series of instructions.

First, two definitions:

The term “**major pieces**” refers to queens and rooks.

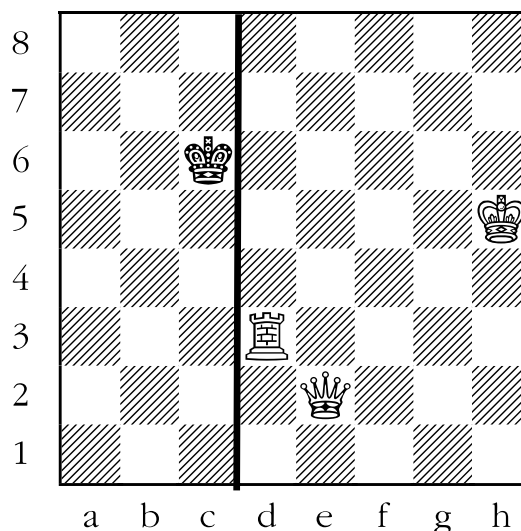
The term “**minor pieces**” refers to bishops and knights.

Kings and pawns are referred to neither as major, nor minor, pieces.

Checkmating with two major pieces (two queens, a queen and a rook, or two rooks) is very easy once you get the hang of it. There are many methods to do this, but all rely upon the ability of the stronger side to drive the weaker side’s king to the edge of the board. The reason we do this is to restrict its mobility, which makes it an easier target to trap and checkmate.

The simplest method is called the “**step ladder checkmate**”. In the same way a person alternates feet as they climb a ladder, the primary idea behind this type of mate is to alternate moving the two pieces to drive the opposing king into the corner.

Here is an example of a “step ladder” checkmate in action:



First we decide which edge of the board it is easiest to drive the king to. In this instance, because the white rook is preventing the black king from running towards the right side of the board, it would be easiest to drive the king to the left side of the board.

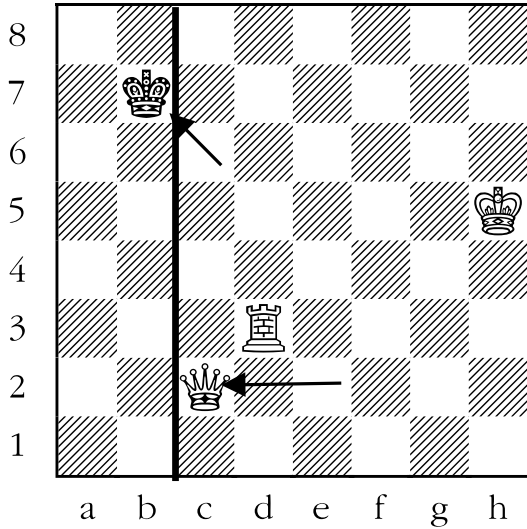
Now we co-ordinate our pieces. For the sake of analogy, we will call the white rook “right foot” and the white queen “left foot”. Our “right foot” is already ahead of the “left foot” on the ladder (which we are “climbing” from right to left), so now we move our “left foot” ahead with queen to c2.

In response, the black king can’t:

- run to the d-file (d7, d6, or d5) because the rook is preventing it.
- remain on the c-file (c7, or c5) because the white queen is preventing it.

This means that the black king must run to the b-file, for example b7.

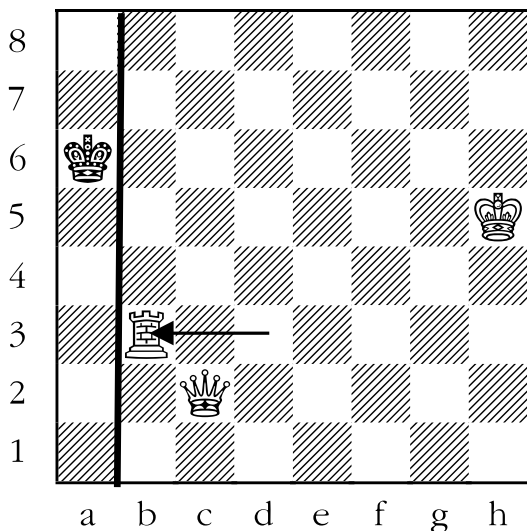
We reach the following position:



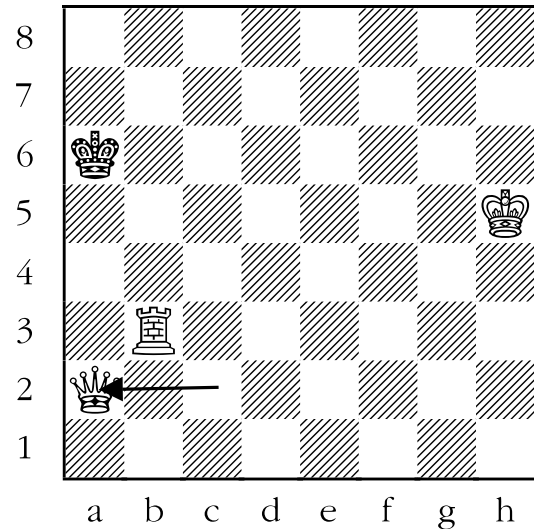
Notice that now the “left foot” (queen) is ahead. We alternate again by moving our “right foot” ahead with rook to b3. In response, the black king can’t:

- escape to the c-file (c8, c7, or c6) because the queen is preventing it.
- remain on the b-file (b8 or b6) because the rook is preventing it.

That means that the only place for the black king to flee is the a-file, on the edge of the board. We would get a position that looks like this:



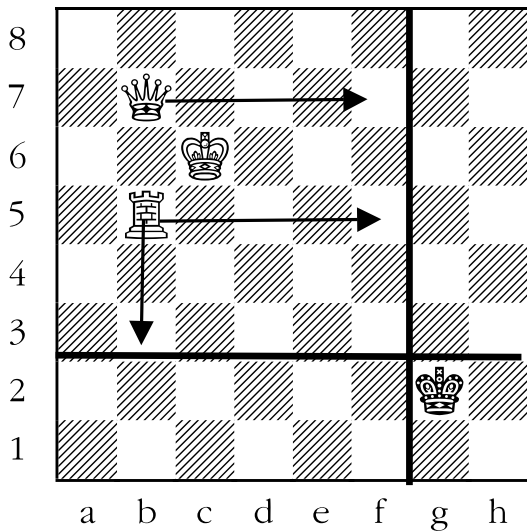
By now positions like the one above should look very familiar. White has managed to force the black king to where it didn’t want to go, the edge of the board. All that remains is to deliver the finishing checkmate with queen to a2. This is the final position:



The main things to remember when delivering a “step ladder” checkmate are:

1. pick an edge of the board (any edge) as your target
2. alternate attackers. At any one time, one attacker will be keeping the king from running to the centre of the chessboard, while the other attacks (checks) the king and forces it to the edge.

There is one other thing that can speed up the process when delivering “step ladder” checkmates. This is seen below:



The black king is already very near both the far right edge (the h-file), and the bottom (black’s eighth rank) of the chessboard. It would be a good idea to keep him there.

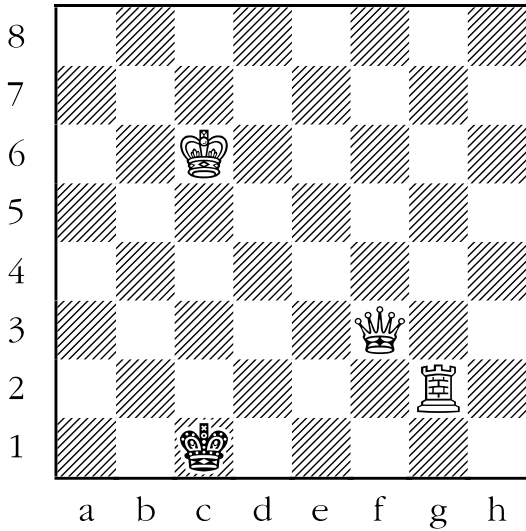
- Moves that prevent the black king from running to the left are good. In this position such moves would be rook to f5 or queen to f7.
- Moves that prevent the black king from running to the top are good. For example, moving the rook to b3 is a good idea.

**In either case, it is not the move so much as the intention behind the move that makes it good.** If you see that your opponent’s king is near one of the edges of the board, try to keep it there. It makes the job of checkmating him much easier.

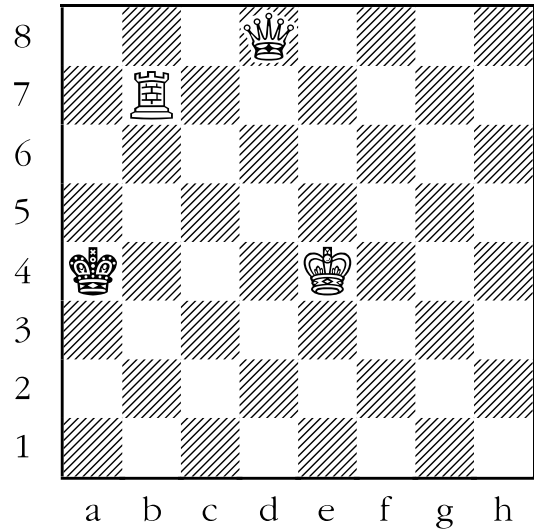
# Sheet 24-1: Checkmate with Two Major Pieces

In the following diagrams, draw an arrow to show white's best move.

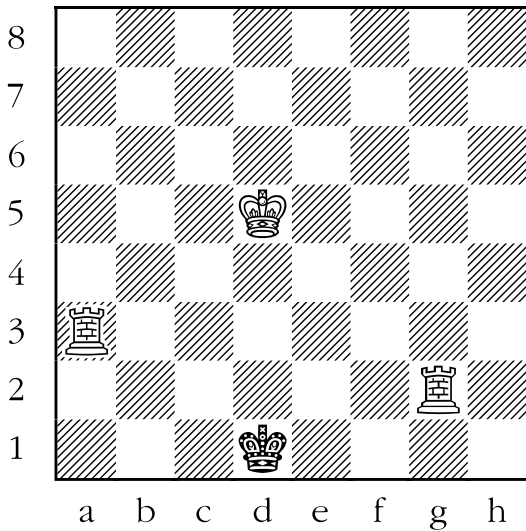
1.



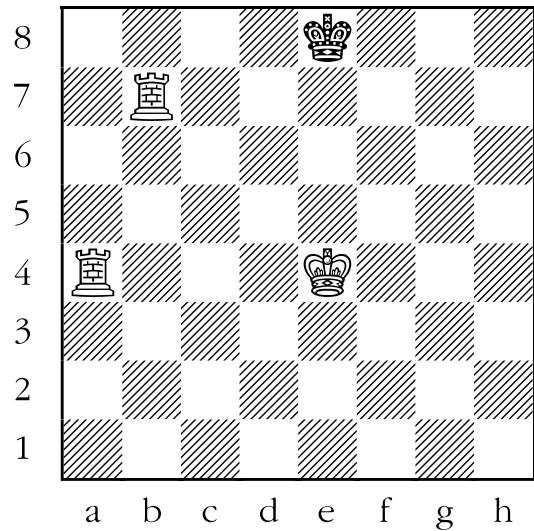
3.



2.

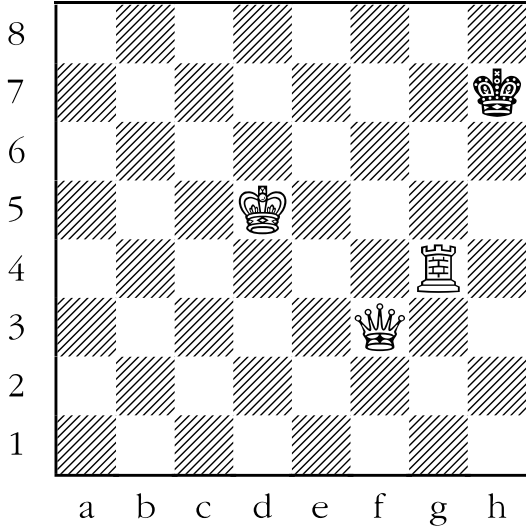


4.

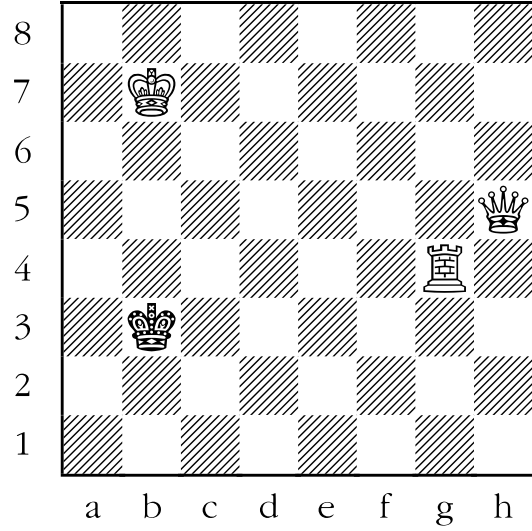


# Sheet 24-1: Checkmate with Two Major Pieces

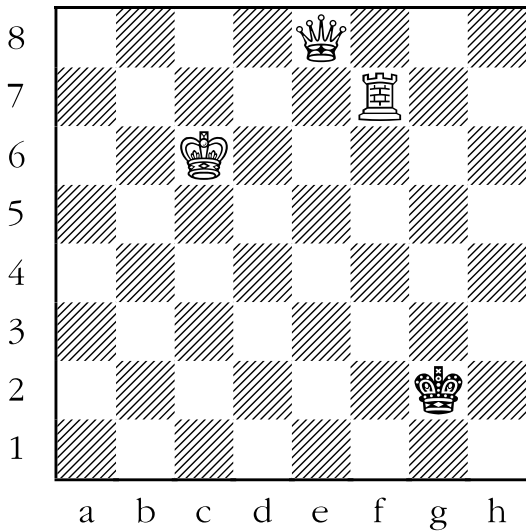
5.



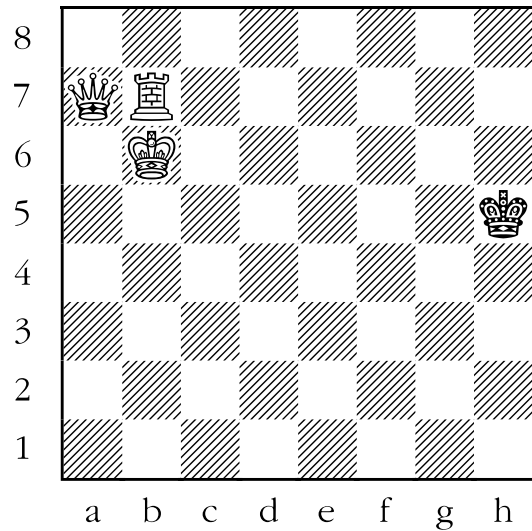
7.



6.

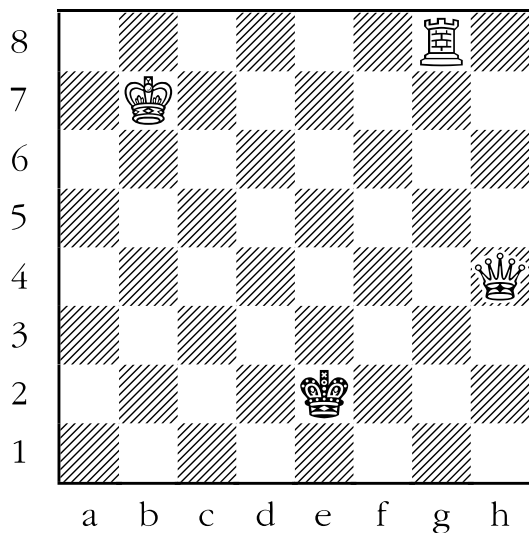


8.

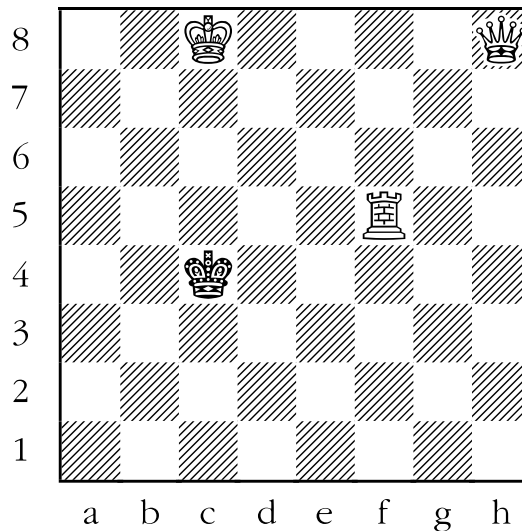


# Sheet 24-1: Checkmate with Two Major Pieces

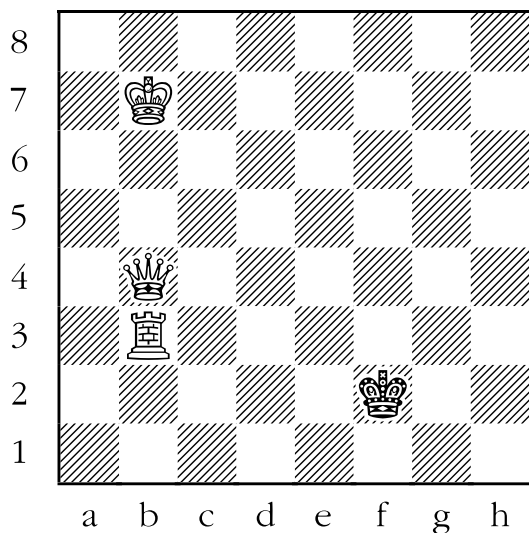
9.



11.



10.



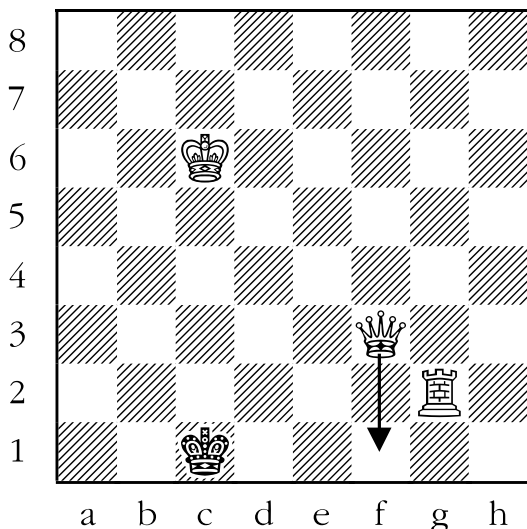
# Answer Sheet 24-1: Checkmate with Two Major Pieces

In the following diagrams, draw an arrow to show white's best move.

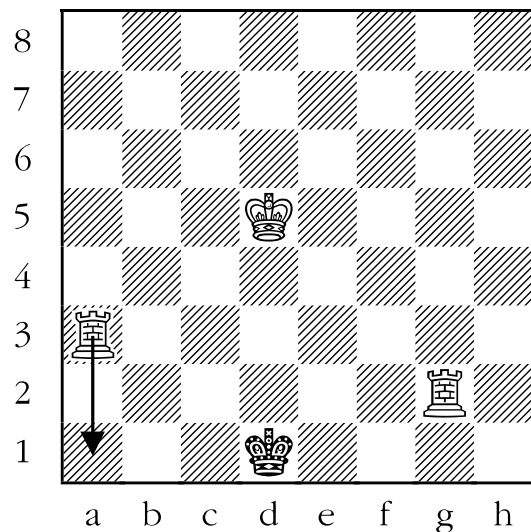
*In the first five questions, white can checkmate black in one move by completing the "step ladder" checkmate.*

**1. ANSWER: QUEEN TO f1.** In the diagram below, the black king is trapped on the edge of the board. The white rook is preventing the black king from leaving the edge of the board, since it controls the escape squares b2, c2, and d2. At the moment, the queen isn't doing anything useful, but it would be if it could attack the king and cover its remaining escape squares of b1 and d1. All of these squares are in a horizontal line, and from any safe square along the first rank, the queen would be checkmating the king.

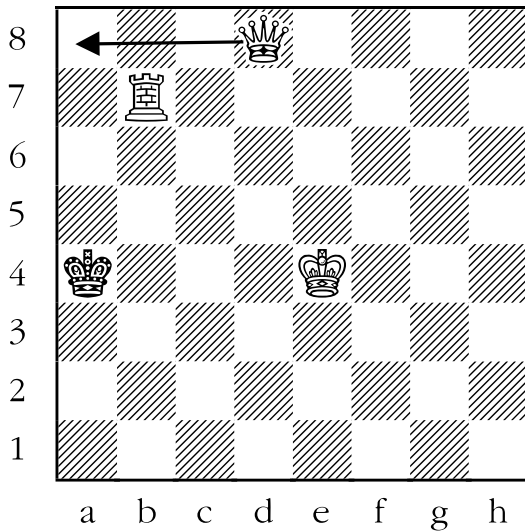
The only square that would fit this criterion on this move is queen to f1, since moving the queen to d1 would lose the queen when the king takes it.



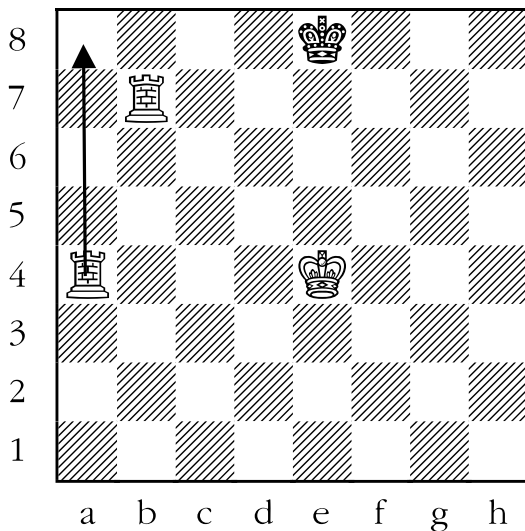
**2. ANSWER: ROOK TO a1.** The king is trapped on the edge of the board by the rook on g2. The other rook isn't doing anything, but it would checkmate black if it could attack the black king while controlling its escape squares of c1 and e1. White can do this right now by moving the rook to a1. Black is checkmated.



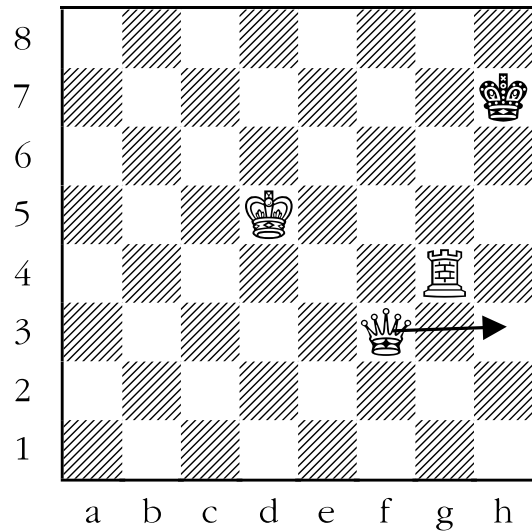
**3. ANSWER: QUEEN TO a8.** The black king is trapped on the edge of the board by the rook on b7. The queen can deliver checkmate by moving to a8, which both attacks the black king and prevents it from escaping to either a3 or a5.



**4. ANSWER: ROOK TO a8.** The black king is trapped on the edge of the board by the white rook on b7. The other rook delivers mate by moving to a8, which simultaneously attacks the king while also attacking its flight squares of d8 and f8. The king is checkmated.



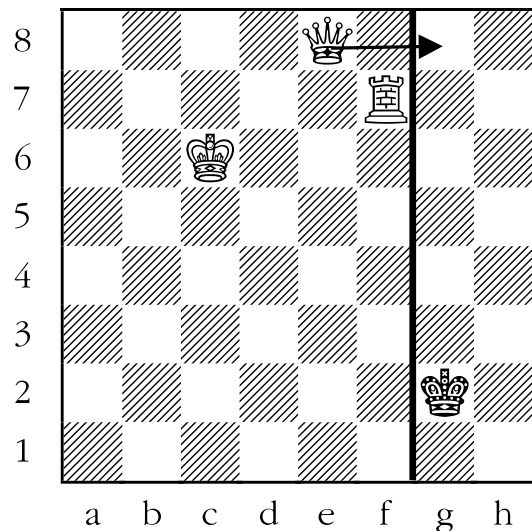
**5. ANSWER: QUEEN TO h1 OR QUEEN TO h3.** The black king is confined to the edge of the board by the rook. The queen can move to either h1 or h3, both of which attack the king while denying it the flight squares of h6 and h8.



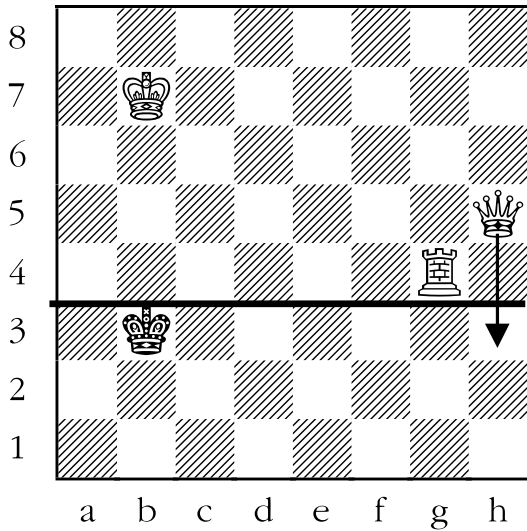
*The rest of the questions in this set do not end in checkmate in one move.*

**6. ANSWER: QUEEN TO g8.**

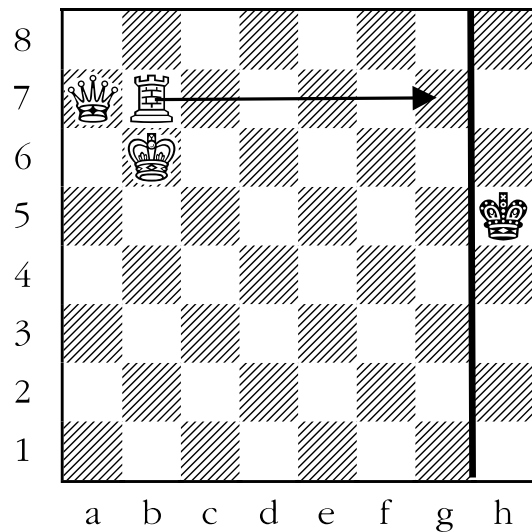
In this example, the black king is being prevented from running towards the relative safety of the centre by the white rook, which controls the squares f1, f2, and f3. The white queen forces the black king to head toward the edge by going to g8.



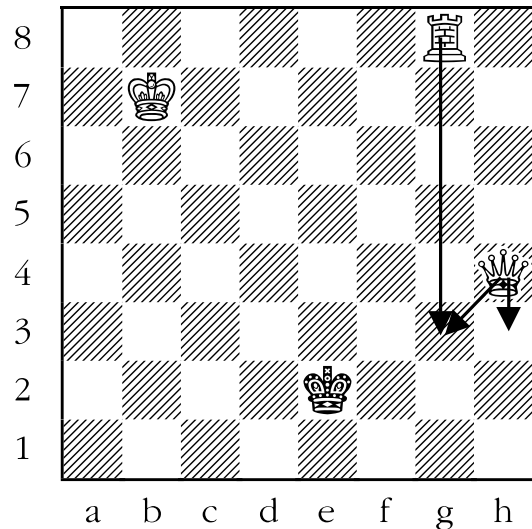
**7. ANSWER: QUEEN TO h3.** The rook is preventing the black king from heading towards the centre by guarding the escape squares a4, b4, and c4. The queen goes to h3, which further restricts the black king by forcing him to go towards the bottom edge of the board.



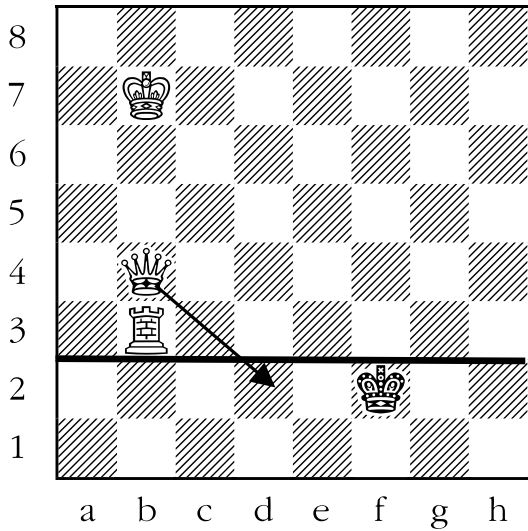
**8. ANSWER: ROOK TO g7.** The black king is on the edge of the board. White should try to keep him there if possible. The best move to do that is to move the rook to g7. Now the black king can't leave the edge of the board because the white rook is covering all of the escape squares: g4, g5, and g6.



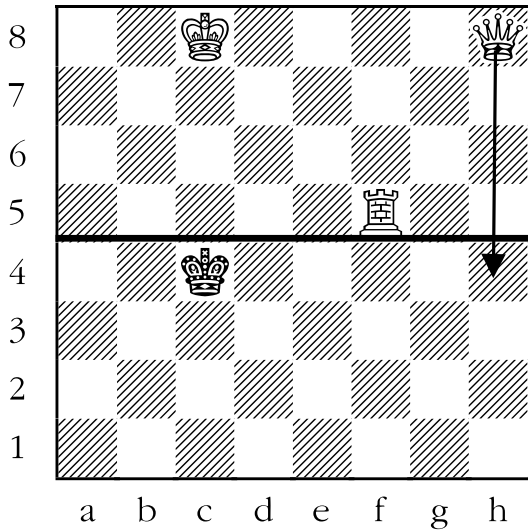
**9. ANSWER: QUEEN TO h3 OR QUEEN TO g3 OR ROOK TO g3.** White can prevent the black king from running to d3, e3, or f3 in one of three ways. The first is to move the rook to g3. The other two are to move the white queen to h3 or g3. In all three of these cases the king is restricted to the bottom two ranks (rows).



**10. ANSWER: QUEEN TO d2.** The white rook is preventing the black king from escaping to e3, f3, or g3. The white queen can confine the king further by moving to d2. Now the king is forced to go to the bottom rank.



**11. ANSWER: QUEEN TO h4.** The black king is being denied a route to the centre of the board by the rook. The queen assists the rook in pushing the king back by moving to h4. Now the king is forced back even further to black's sixth rank (row).



# Lesson 25

## Checkmate with the Queen

### (Sheet 25-1)

#### Objective:

- Teach students to checkmate a lone king with a king and a queen.

#### Skills Developed:

- Organizing thoughts.
- Learn about and identify symmetry (both 90 and 180 degree).

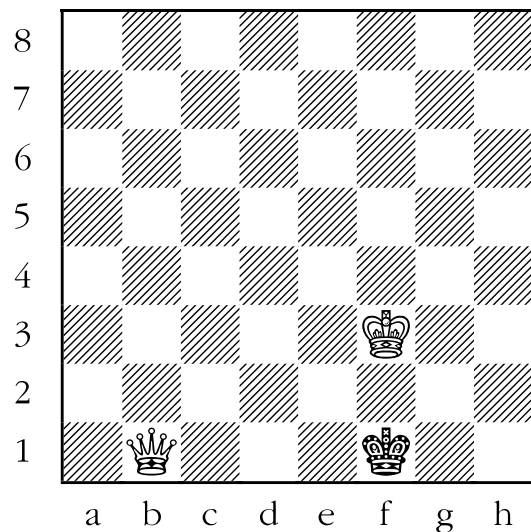
### PART I

Checkmating a lone king with a king and queen is not nearly as easy as checkmating a lone king with two major pieces.

Nevertheless, the theory is the same in that checkmate can only be delivered on the edge of the board. In order to teach how to checkmate with a king and queen against a lone king, it is necessary to work backwards.

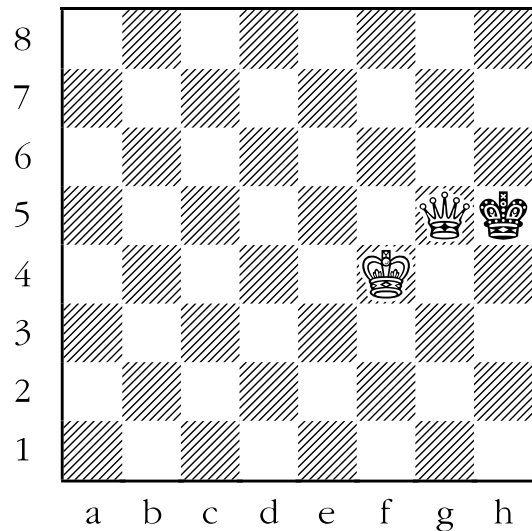
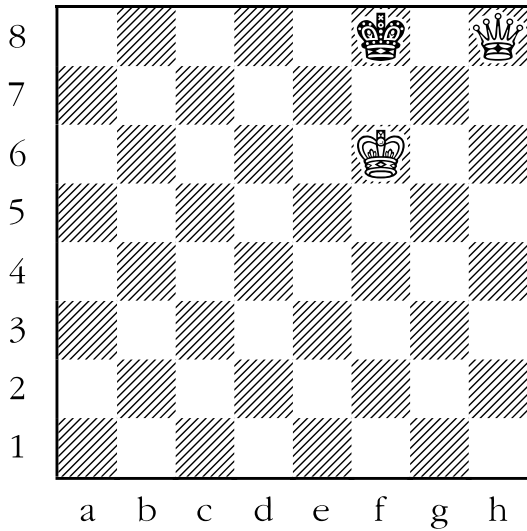
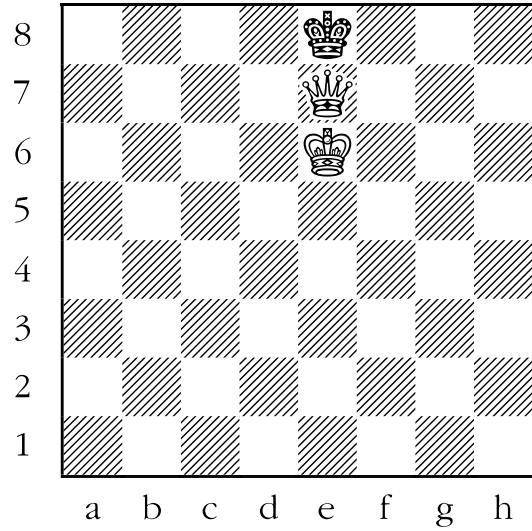
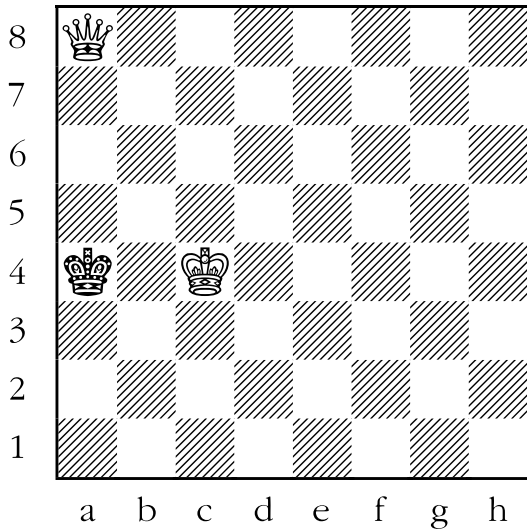
First, we need to know what the ultimate checkmating position will look like. Below are two schematic checkmates that the students should thoroughly understand before beginning to do the sheets. Any checkmate with this material distribution will look remarkably like one of these patterns.

The first schematic mate looks like these:

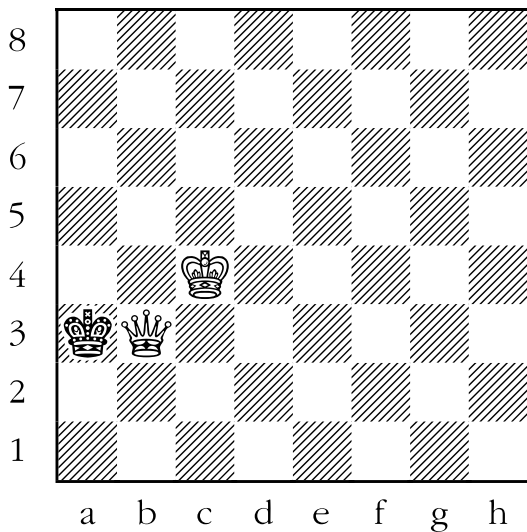


In the first example, shown above, white has the black king trapped on the edge of the board, and it can't escape because if it tried to move to e2, f2, or g2 the two kings would be on adjacent squares, which is not allowed. The queen is far enough away from the king that it can't be taken, and is attacking the king as well as guarding its flight squares of e1 and g1. *Note that the two positions that follow are analogous, and similar positions could occur on a variety of squares, on any edge of the board.*

The second schematic position the students should thoroughly understand look like these:



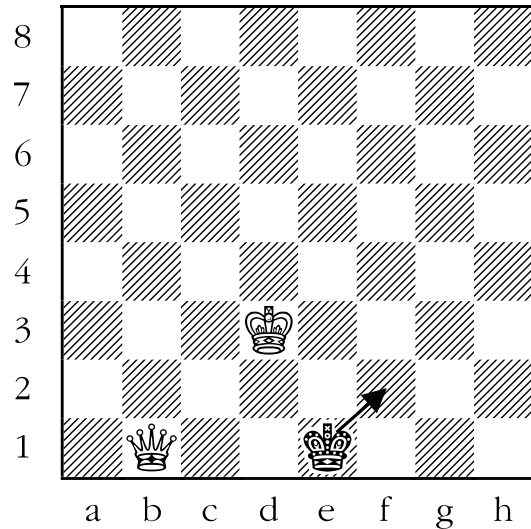
The above are examples of one type of position that the strong side is trying to force the weak side into. The black and white kings are facing off directly in front of each other, with only one square between them. When kings are situated like this, it is known in chess as “the opposition”.



The king is once again confined to the edge of the board, but this time the queen is adjacent to the king either vertically or horizontally. The black king can't take the queen because the white king is guarding it. Of course, one could find many similar positions on squares on all four edges of the board.

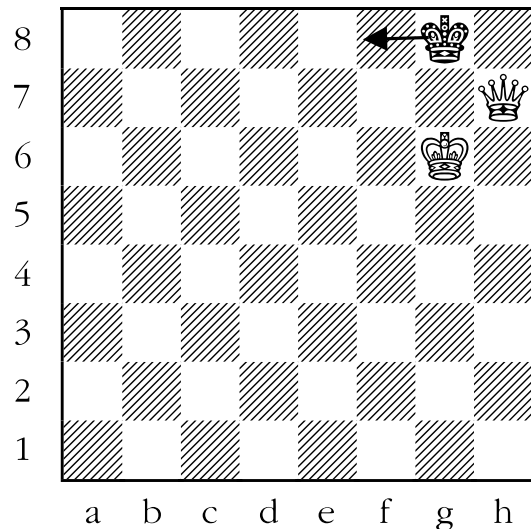
To repeat, every mating pattern with king and queen versus king ends in one of these two types of positions, so the student must know what they are aiming for.

Here are three examples of what **NOT** to aim for. They are close but not quite right:



This is an attempt to duplicate the first mating pattern. It is almost correct, but the white king and black king are not "in opposition" so the black king can escape to f2.

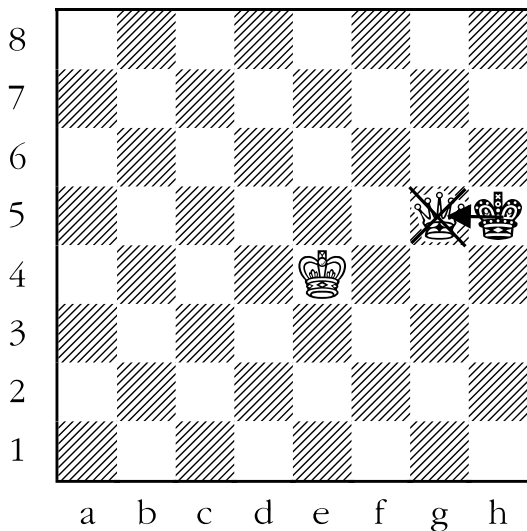
Here is the second example:



This is another near miss, this time as an attempt to duplicate the second mating pattern. Unfortunately the white queen and king, although adjacent, are not vertically or

horizontally so, and the black king can escape to f8.

But perhaps the most tragic finales are the ones that look like this:

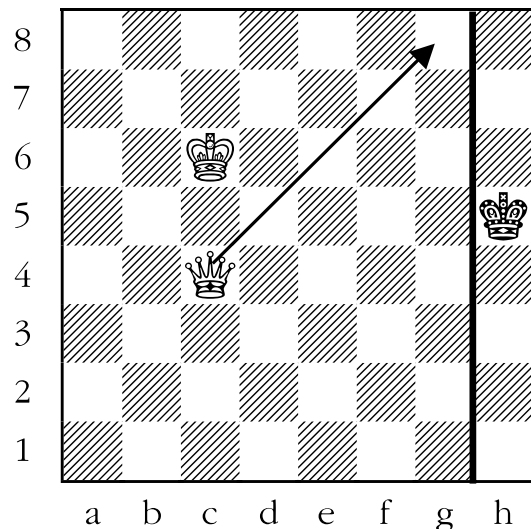


The black king is trapped on the edge of the board. The white queen is preventing the black king from running away, since the queen guards all of the squares. The problem is that the white king isn't guarding the white queen, so the black king can take it for free.

Now we know what the final position should look like. You might consider handing out **Sheet 14-1: Mate with the Queen** again to make sure that all of the students are confident about the final position. Once the above has been accomplished, move on to Part II, which will tell you how to get to the positions found in Part I.

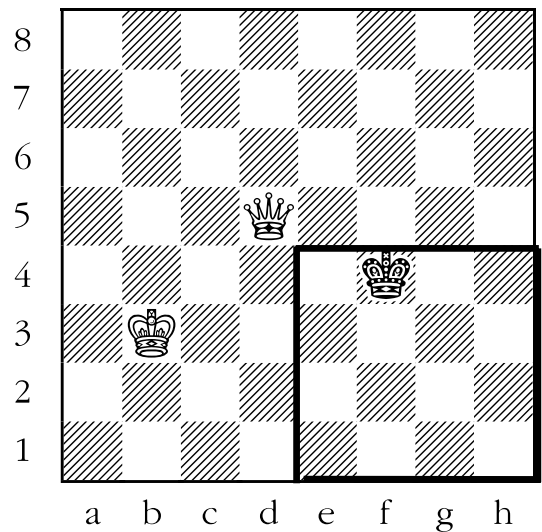
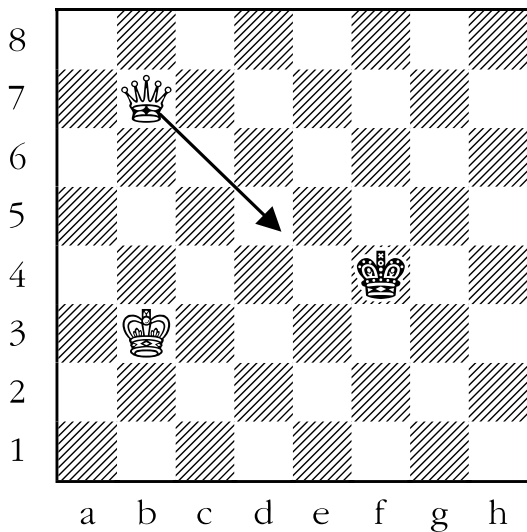
## PART II

This part concerns trapping the king on the edge of the board. In a sense, it is very similar to checkmating a lone king with two major pieces, in that the closer to the edge of the board you can trap the king, the easier it is. Here is an example:



The black king is on the edge of the board. White would like to keep him there. In order to do this most easily, white should play his queen to g8. The king would be stuck on the edge of the board, and the queen would keep it from escaping. White would then ignore his queen for a while, and walk his king towards the black king and try to deliver checkmate as in the earlier schematic positions.

Of course, the stronger side probably won't get so lucky as to have the opponent's king stuck on the edge of the board as in the example above. More likely the position will look something like this:



In a position like the one above, the key is to picture the king as being in a large box, whose dimensions you will shrink by using the queen. For this reason the author, when teaching students, has his own name for both this checkmate and the one with the rook as **“the incredible shrinking box checkmates”**.

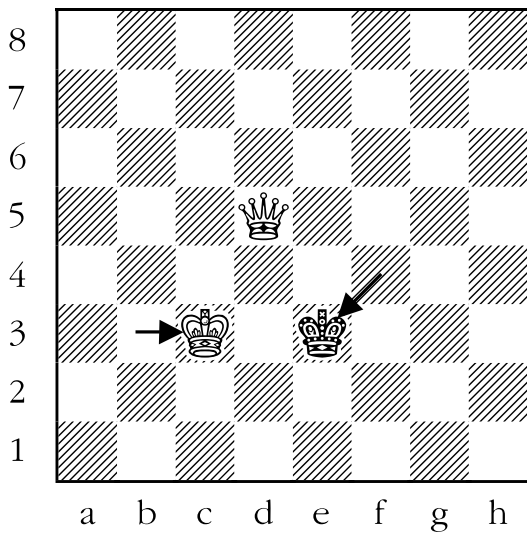
The dimensions of the box (okay, rectangle is more appropriate but somehow not quite as dramatic, in my opinion), are determined by the placement of the white queen and the black king. White should always try to move his queen as close to the opposing king as is safely possible, and guide the black king to the edge of the board.

In the preceding diagram, white’s most efficient move is queen to d5, where the queen is a knight’s move away from the king. This positioning of the queen a knight’s move away from the opponent’s king is quite common. Here is a sample box.

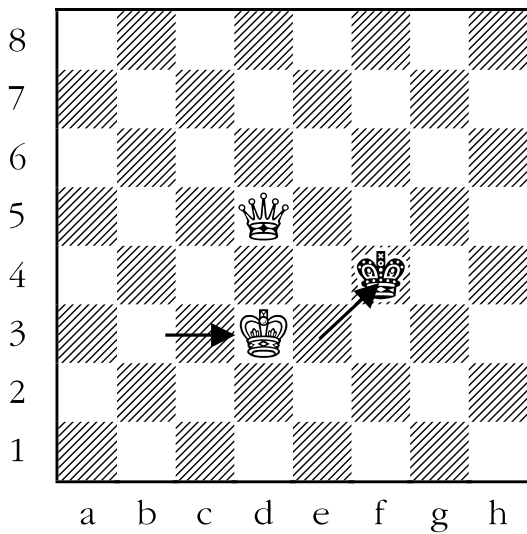
The sides of the rectangle run from the queen to the two edges of the chess board which would pen in the black king, and along the edge of the board itself. In this instance the black king can’t set foot on the d-file, or black’s fourth rank, because the white queen prevents him from doing so.

It is now black’s move, and he decides to try to stay near the middle of the board, and goes to e3. This is a good decision, since the goal of the defender is to try and stay off of the edge of the board.

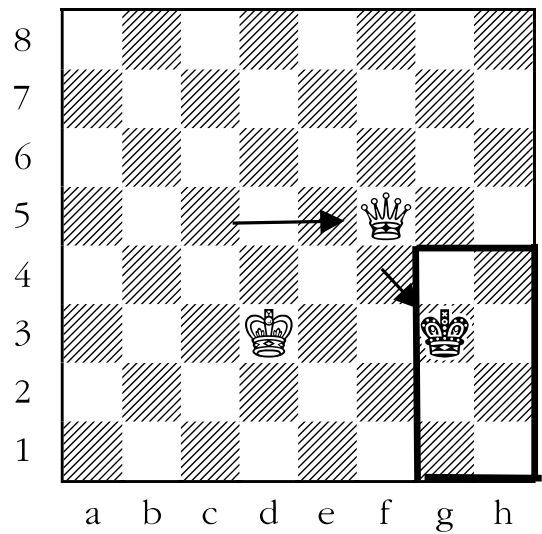
The question for white is: how can he make his position better? He can’t shrink the box, so he should move his king closer to the opponent’s king. In this case, we will choose c3, even though c2 or c4 would be just as good. That brings about the following position:



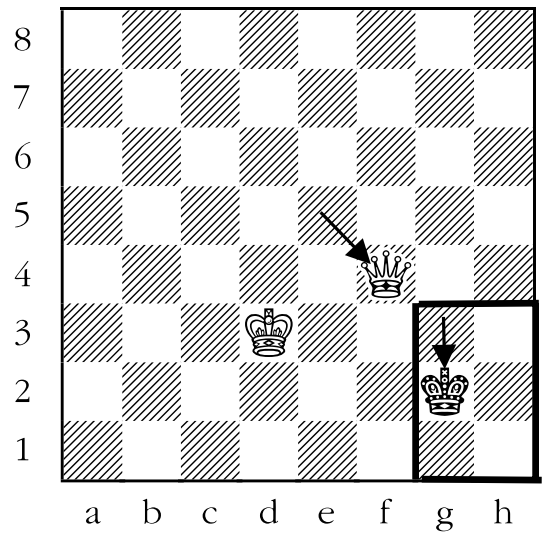
Black must move again, so he goes back to f4, and white moves his king towards the black king, to d3. This would produce this position:



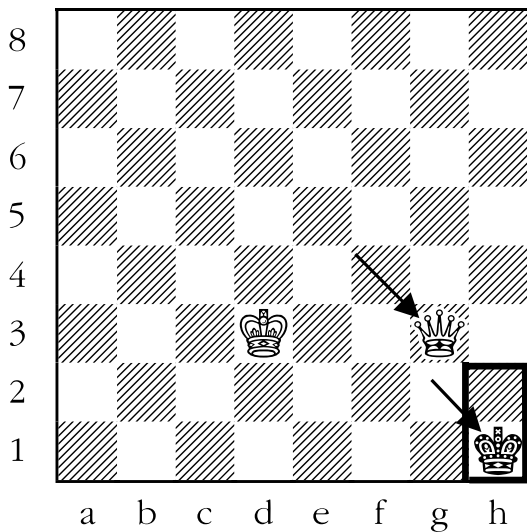
The black king must begin to retreat further into the box. He chooses to go to g3, and white shrinks the box further by moving the white queen to f5. This is the new position:



Black must give ground again, and so retreats his king back to g2. White's queen closes in even further by moving to f4.

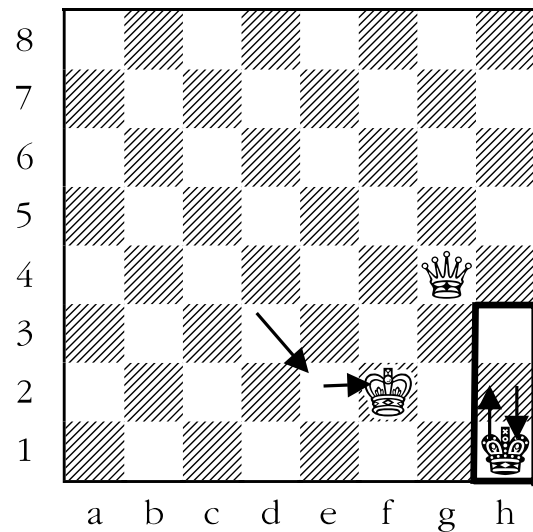


Black moves his king into the corner, and white has a choice of moves which keep him stuck to the edge of the board: queen to d2, queen to g5, queen to g4, or queen to g3 all look possible. One of them is very bad, though. Let's look at queen to g3:



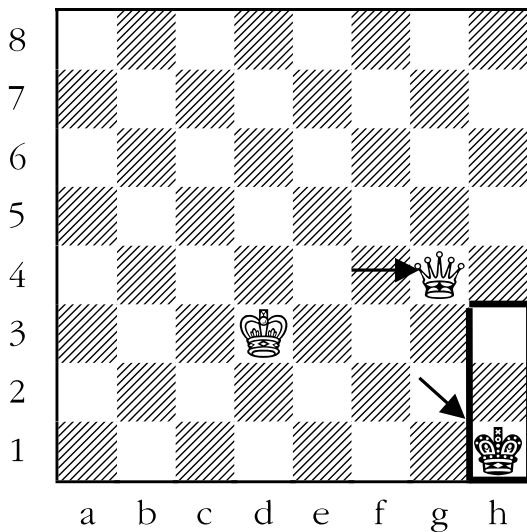
This position is stalemate, a draw (tie). The black king isn't in check, but can't move without moving into check, which is not allowed by the rules.

So instead of going to g3, the white queen goes to g4. This produces this position:



Black still has only one legal move, and puts his king on h2. At this point white can deliver checkmate by duplicating one of the schematic patterns described in Part I.

That is all there is to learning to checkmate with a queen and king versus a lone king. It is a multi-step process, but experience has shown that, with practice, it is certainly not beyond the comprehension of a typical grade four student. Even some students as young as grade one are capable of it!

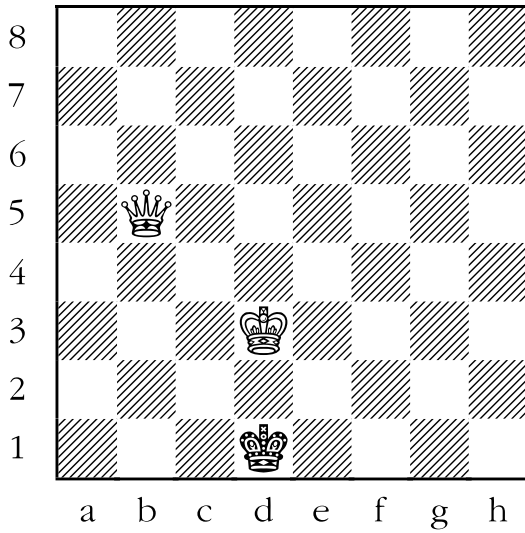


Black has no choice but to move his king to h2; white moves his king closer to the black king with king to e2. Black moves his king back into the corner, since it is the only place it can go, and white moves his king even closer, to f2. We get this position; it is black's turn to move.

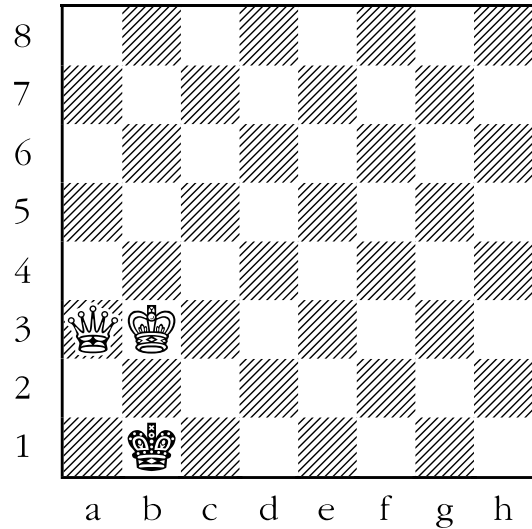
# Sheet 25-1: Checkmate with the Queen

In the following diagrams, draw an arrow to show white's best move.

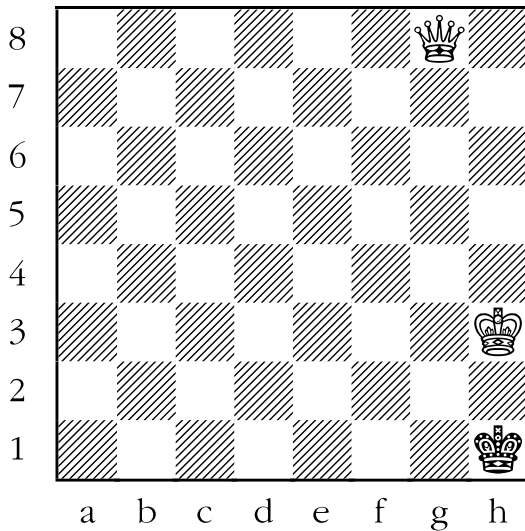
1.



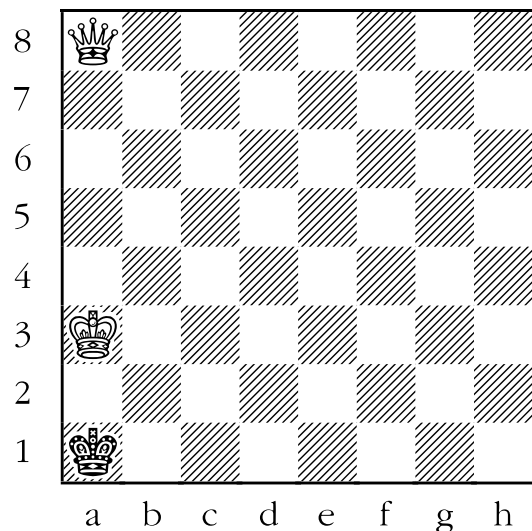
3.



2.

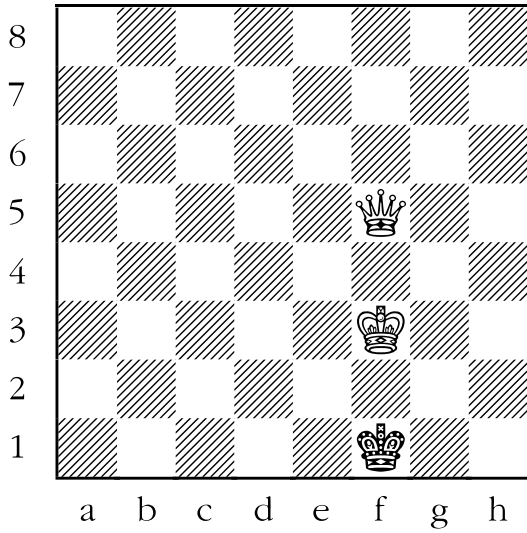


4.

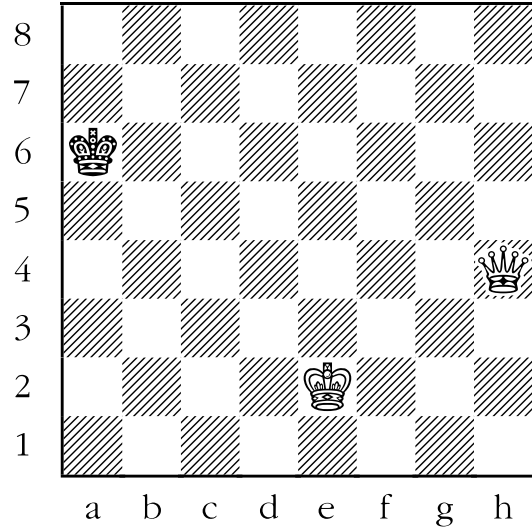


# Sheet 25-1: Checkmate with the Queen

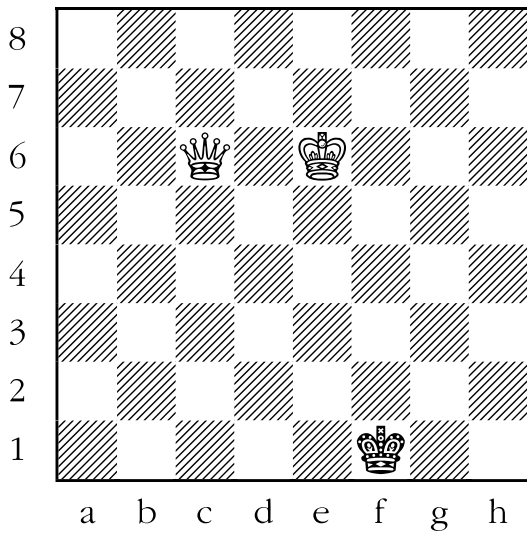
5.



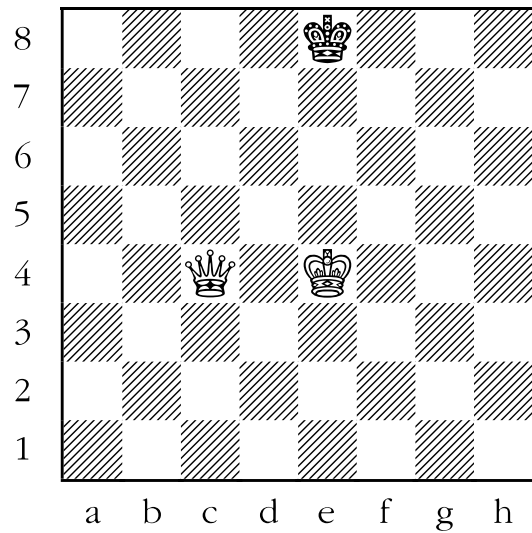
7.



6.

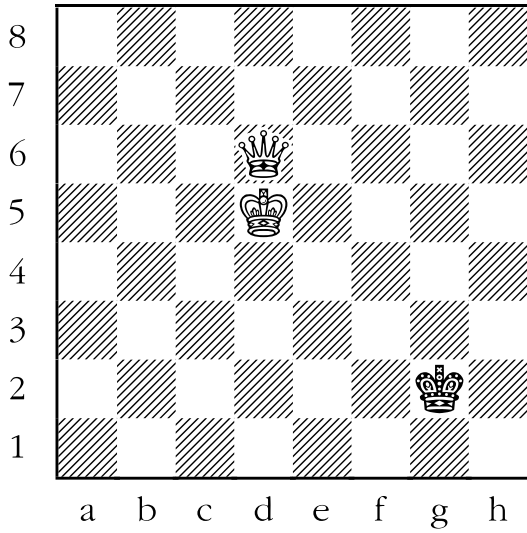


8.

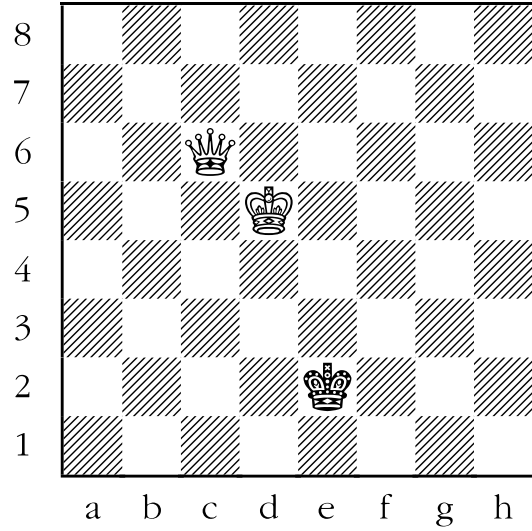


# Sheet 25-1: Checkmate with the Queen

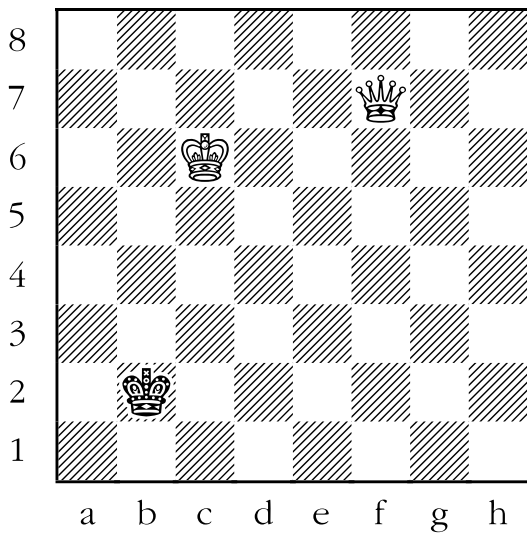
9.



11.



10.

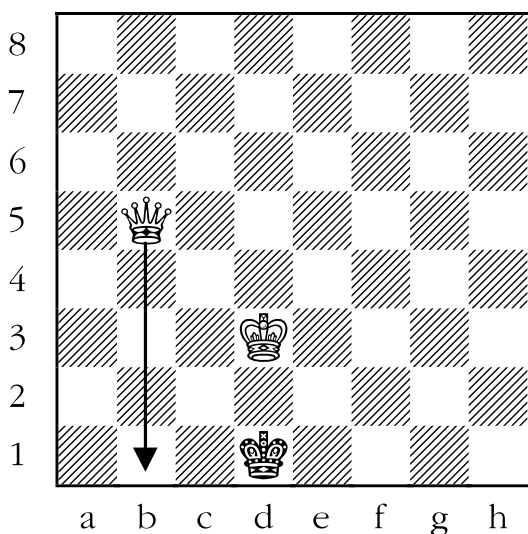


# Answer Sheet 25-1: Checkmate with the Queen

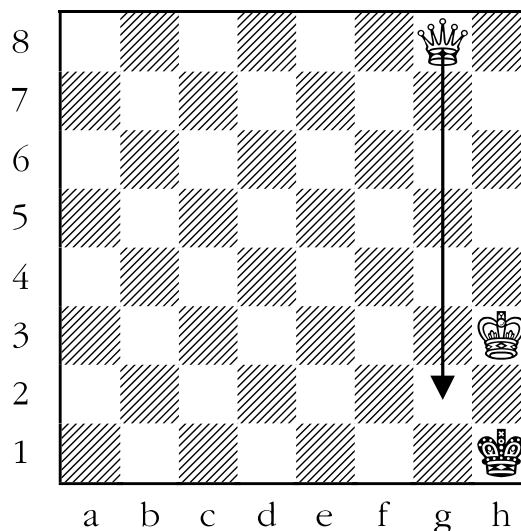
In the following diagrams, draw an arrow to show white's best move.

*The first five examples show how white can checkmate black in one move, resulting in one of the schematic mating patterns.*

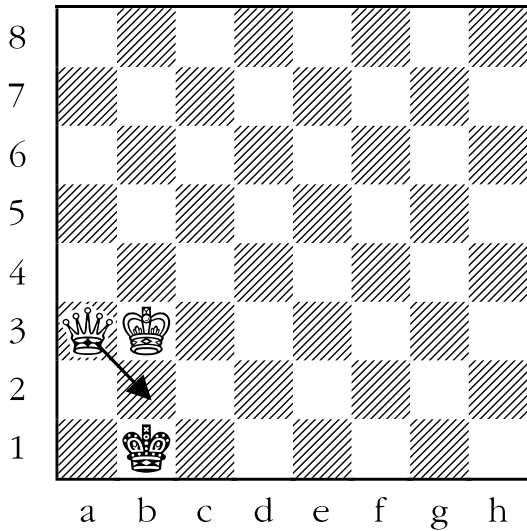
**1. ANSWER: QUEEN TO b1.** In this example, the white king is keeping the black king from escaping to c2, d2, or e2. The white queen can attack the black king while also preventing the black king's escape to either c1 or e1, by moving to b1. The black king is checkmated.



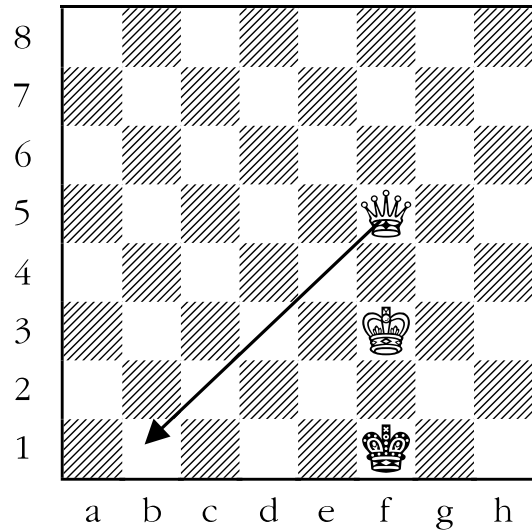
**2. ANSWER: QUEEN TO g2.** In the diagram below, the black king is stuck in the corner. If white moves the queen to g2, black is checkmated. The king can't take the queen because the white king guards it; the king can't run away because the queen covers all of the escape squares.



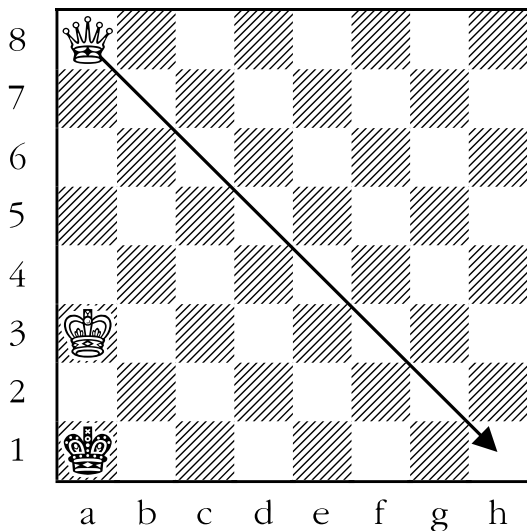
**3. ANSWER: QUEEN TO b2.** In this example, the black king is trapped, and white can checkmate it by playing the queen to b2. The black king can't take the queen, because the white king guards it.



**5. ANSWER: QUEEN TO b1.** In the diagram below, the black king is prevented from running off of the back rank by the white king. The white queen attacks the king and checkmates it by moving to b1.

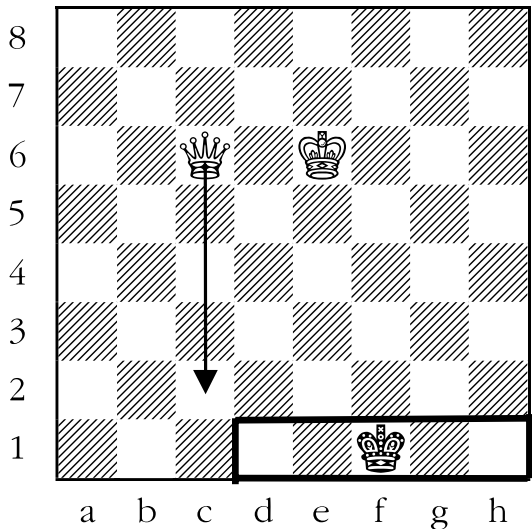


**4. ANSWER: QUEEN TO h1.** The black king is in the corner, and white can checkmate the king by moving the queen to h1. The king can't escape off of the white first rank because the white king is preventing it from doing so.

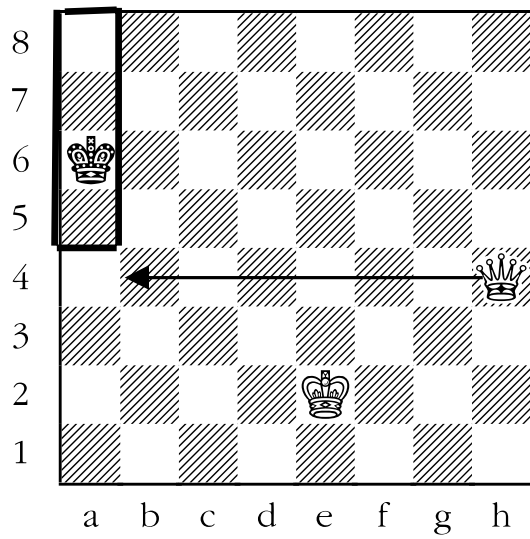


In the next three examples, white can't checkmate black, but he can trap black's king on the edge of the board.

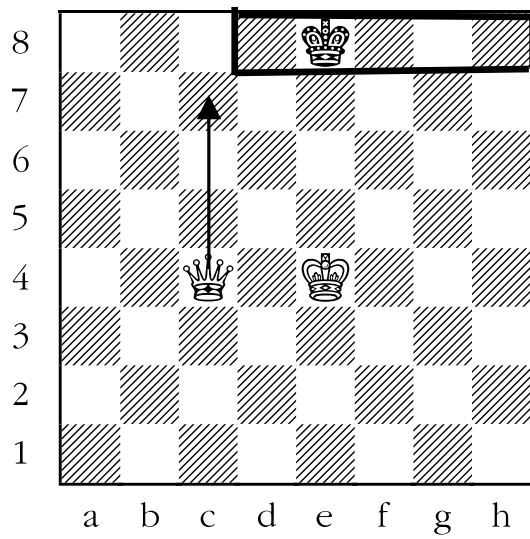
**6. ANSWER: QUEEN TO c2.** In the first example, white wants to move the queen to a place where it will prevent the black king from going to white's second rank without being captured. The only way to do that is for the white queen to go to c2. It would now be illegal for the king to run to e2, f2, or g2 because the king would be in check from the white queen. White's next idea would be to bring the white king closer to the black king and checkmate as in the schematic diagrams.



**7. ANSWER: QUEEN TO b4.** Black's king is on the left edge of the board (the a-file). White should try to move her queen so that the black king can't go to the b-file. The easiest way to do that is to move the white queen to b4. Now the king can't leave the edge of the board because that would place it in check, which is illegal.

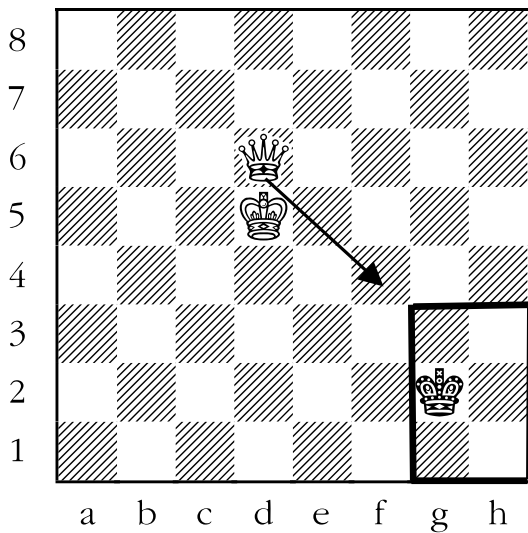


**8. ANSWER: QUEEN TO c7.** The black king is on the edge of the board, and white would like to keep it there. The easiest way is to play the white queen to c7. Bad would be moving the queen to f7, because then the king would take it.

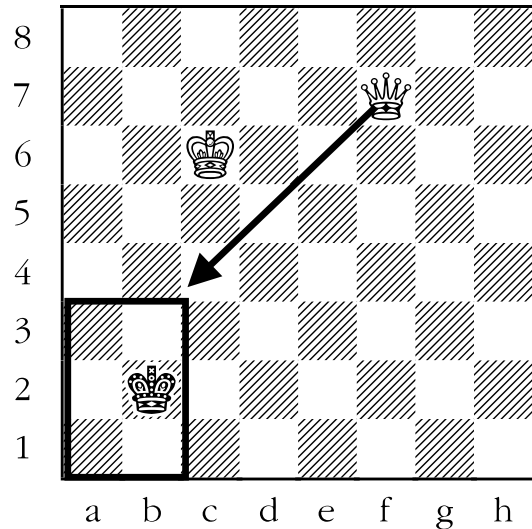


The next three questions are examples of how to keep the king in as small a “box” as possible.

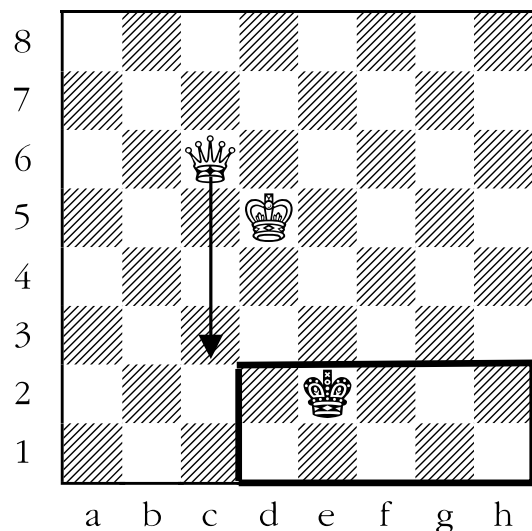
**9. ANSWER: QUEEN TO f4.** If possible, move the queen to a square that is a knight’s move away from the opponent’s king. Here, white’s best move is queen to f4. The black king can’t enter the f-file, or white’s fourth rank, since the queen guards those squares.



**10. ANSWER: QUEEN TO c4.** The white queen can minimize the size of the area that the black king can travel by moving to c4, one knight’s move away from the black king. The king can’t enter either the c-file or the fourth rank because the white queen would keep those squares guarded.



**11. ANSWER:** In the diagram below, the white queen can minimize the size of the area in which the black king can flee by going to c3. From c3, the queen prevents the black king from setting foot on either the white third rank, or the c-file.



# Lesson 26

## Checkmate with the Rook

### (Sheet 26-1)

**Objective:**

- Teach students to checkmate a lone king with a king and a rook.

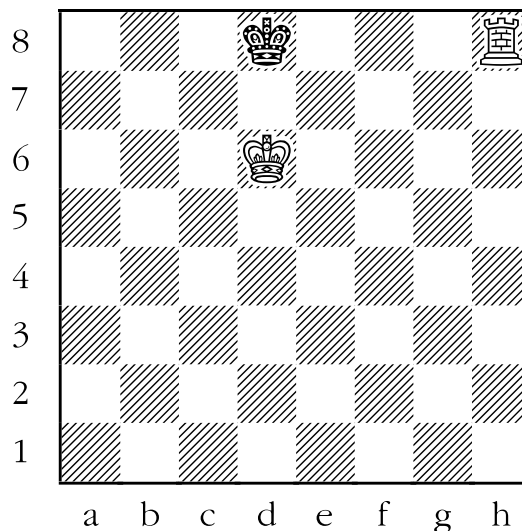
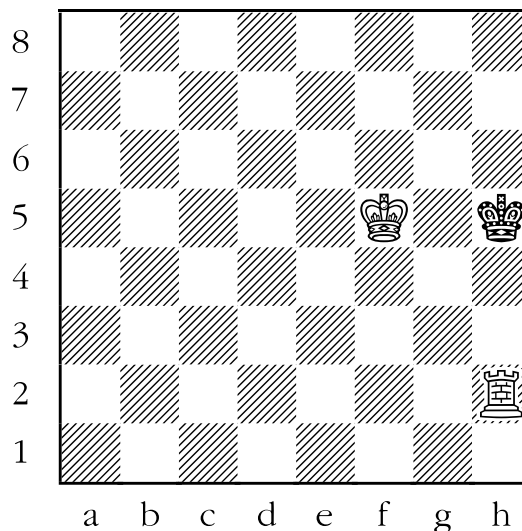
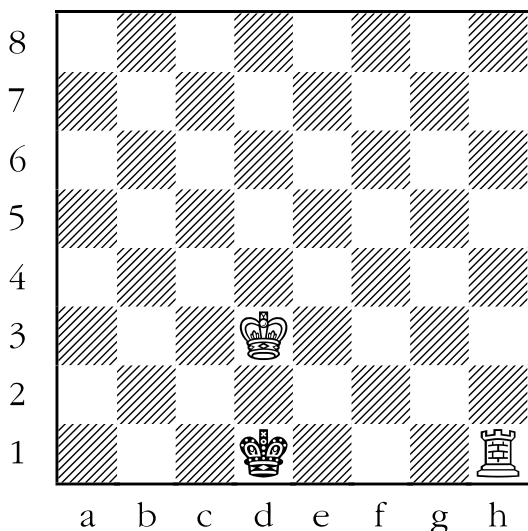
**Skills Developed:**

- Pattern recognition.
- Visualization.

**PART I**

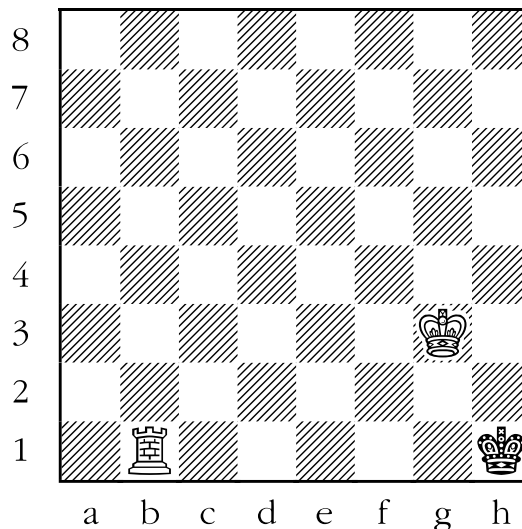
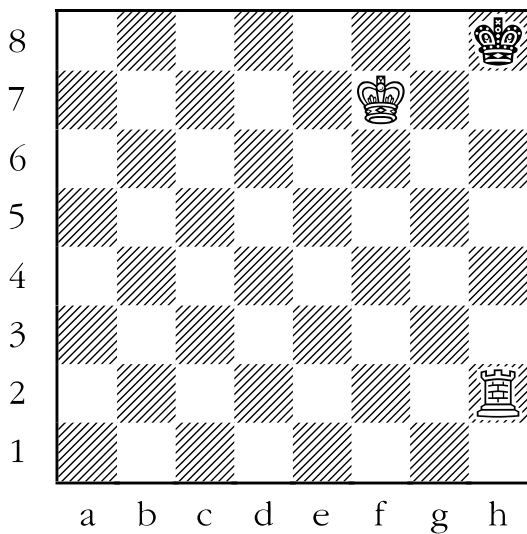
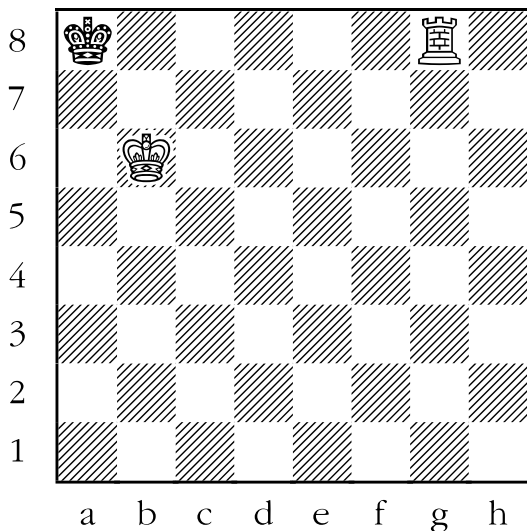
Checkmating a lone king with a rook and a king is only slightly more difficult than checkmating a lone king with a queen and a king.

The principle of confining the enemy king to the edge of the board is the same as in the previous two lessons. There are basically two final mating schematics that the students should be thoroughly familiar with before proceeding to Sheet 26-1. These patterns should look very familiar:



These positions bear a striking resemblance to the first schematic of the last lesson. Of course they should, since the queen basically functioned like a rook for checkmating purposes in the first set of schematic diagrams in Lesson 25.

The second set of schematic diagrams for checkmating with a rook are very similar to the one above, but here, since the weak side's king is in the corner, it is not necessary for the strong side's king to be in direct "opposition".



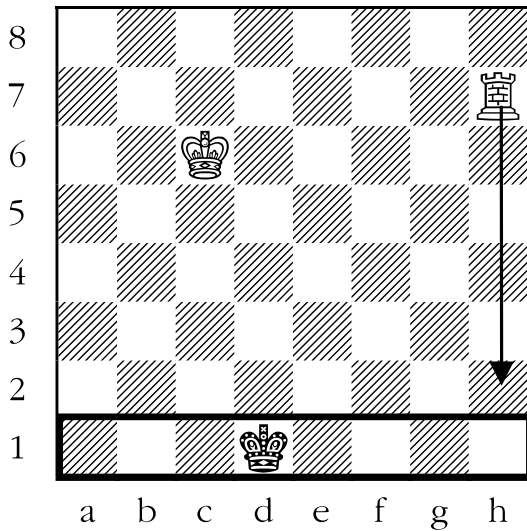
Remember, every mating pattern with king and rook versus king ends in one of these two types of position, so the students must know what they are aiming for.

If you feel the students need a refresher, have them do the first four questions on **Sheet 13-1: Checkmate with the Rook**.

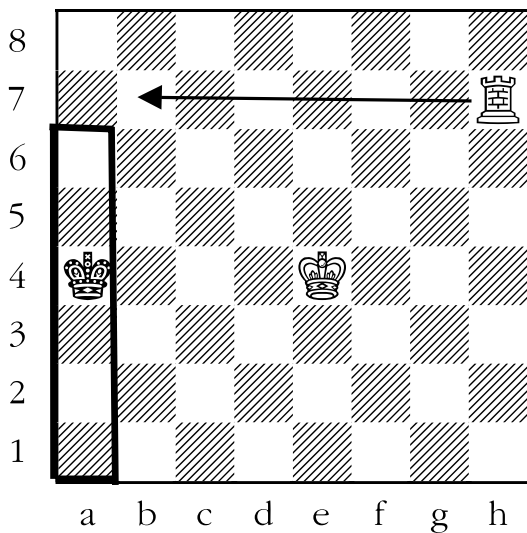
Now we need to learn a method for driving the king into the corner, so that one of the previously seen checkmates can be delivered. This is where **Part II** comes into play.

## PART II

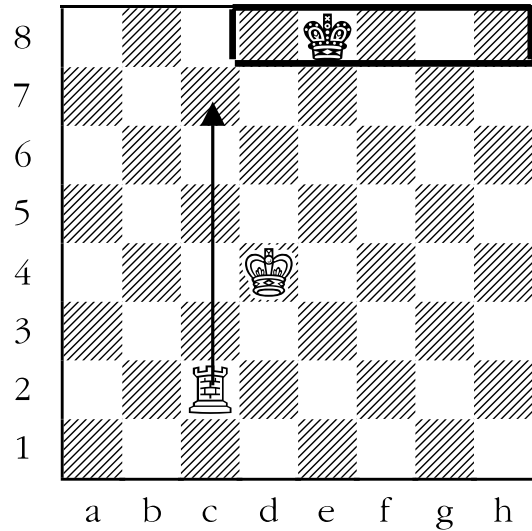
If given the opportunity, the strong side should try to confine the opposing king to the edge of the board, in the same manner as with the queen and king versus lone king finale. Here are examples of this strategy in action:



In the above example, the black king is on the edge of the board. White can keep the king there by moving the white rook to h2. The next step by white would be to bring his king towards the black king.



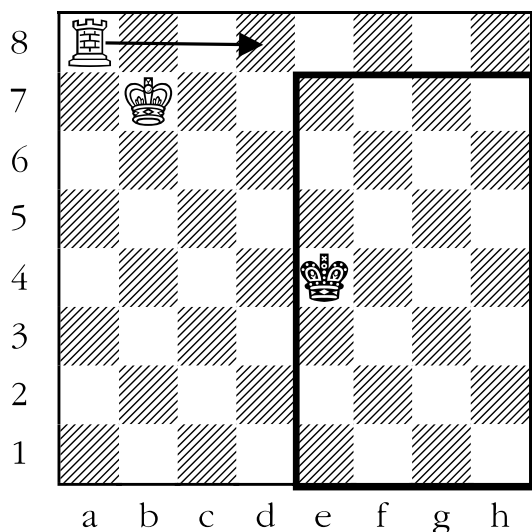
In the diagram at the bottom of the previous column, the black king is on the edge of the board. The rook can keep him there by moving to b7.



Above, the white rook can keep the black king on the black first rank by moving to c7.

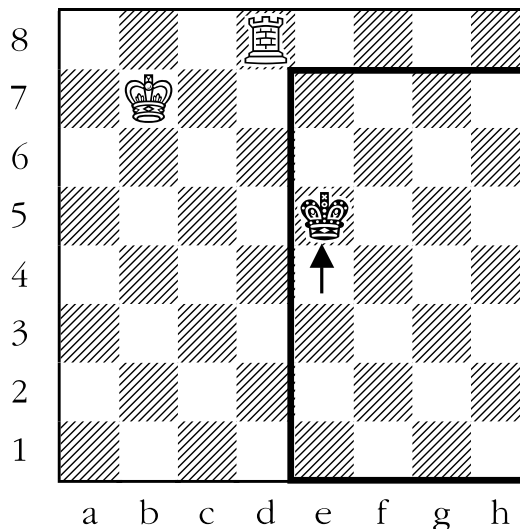
Of course, just like in the queen and king versus king ending, most of the time the opposing king will not be so cooperative as to leave itself on the edge of the board. We need a method to drive it there.

A great deal of co-operation is required between the king and the rook to drive the opposing king back. Here is a sample of how it's done:

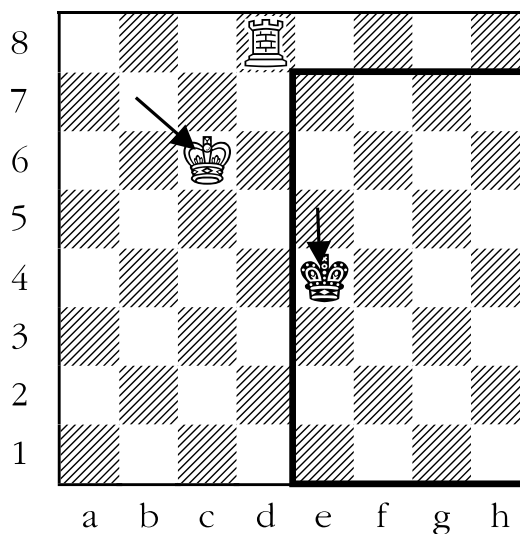


In the diagram above, the black king is in the centre, and will try to stay there for as long as possible. The king and rook will have to force the black king towards one of the edges of the board. Either moving the rook to a5 (preventing the king from moving onto black's fourth rank), or moving the rook to d8 (preventing the king from moving onto the d-file) is good. White chooses the latter option. Black keeps his king as close to the centre as possible, and moves it to e5.

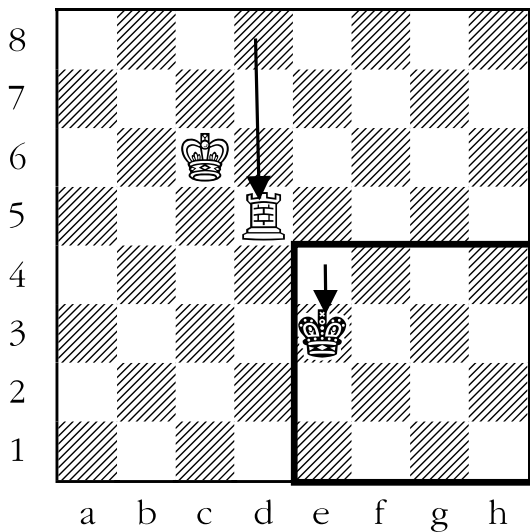
The following position is reached:



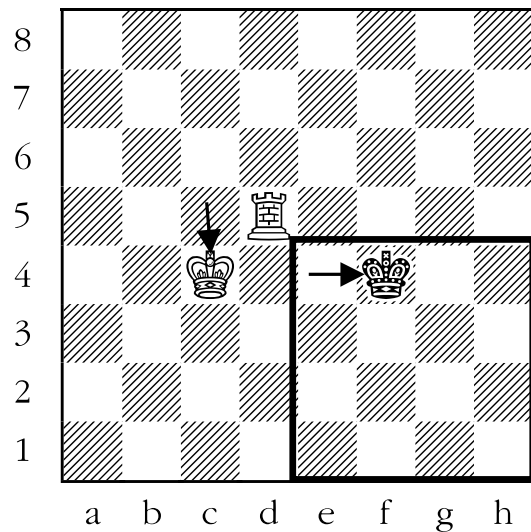
White could make the box smaller by moving his rook to d7, but it wouldn't be that great of an improvement. So instead he brings his king to c6, which is closer to the action. Black responds by continuing to manoeuvre his king as near to the centre of the board as possible and so plays it to e4.



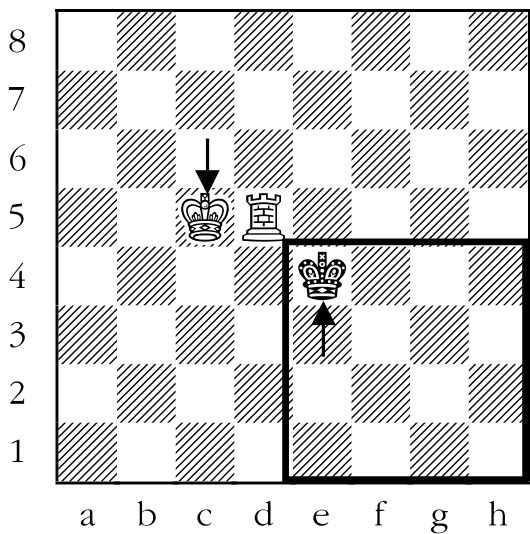
Now white begins to seriously close the box on the black king by moving his rook to d5. The black king is confined to 25% of the total squares on the board. The black king steps back to e3.



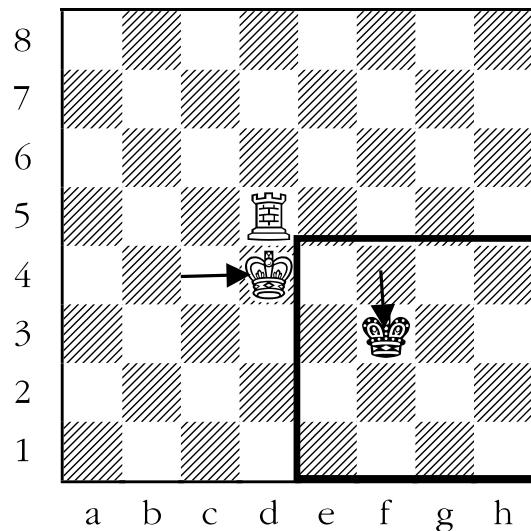
White can't make the box any smaller, so he brings his king closer to the action, and moves it to c5. For his part, black keeps his king as close to the centre of the board as possible, and moves it to e4.



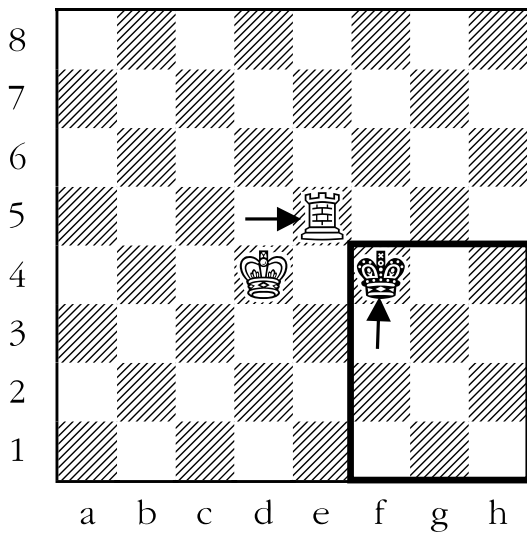
The rook can't make the box any smaller here, but the white king can move closer to the black king, and heads for d4. The black king moves to f3.



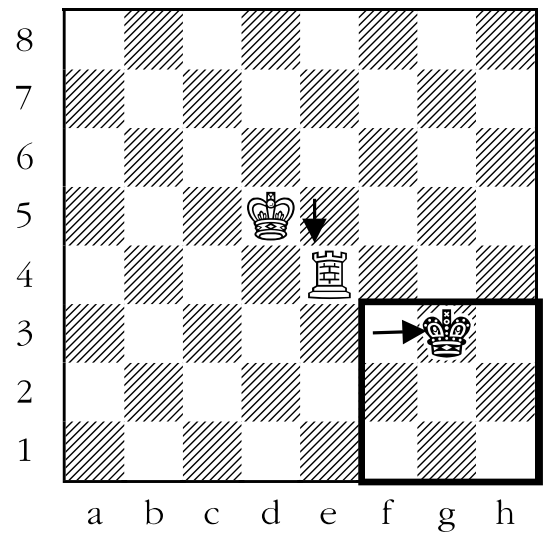
The rook still can't make the box any smaller, so the king yet again moves (geometrically) closer to the black king, by going to c4. The black king is forced to back away to another square. The king retreats to f4.



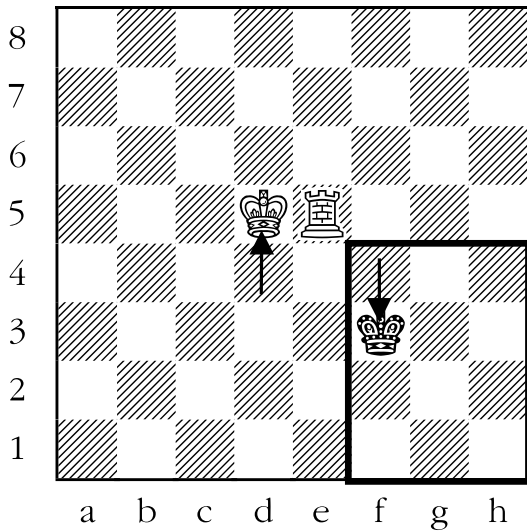
Now the white rook can make the box smaller by going to e5. The black king can no longer move onto the e-file. But it still stays as close to the centre as possible, and goes back to f4. We reach a critical position:



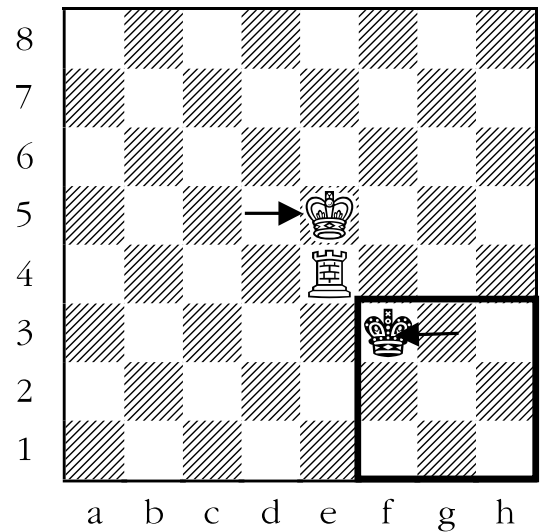
It is white's turn to move, and he has to move either the king or the rook. Moving the rook would make the box that the black king is in bigger, so white should move his king. The king has to keep the rook protected, and the only way to do that is to move it to d5. The black king must continue to give ground; it retreats to f3.



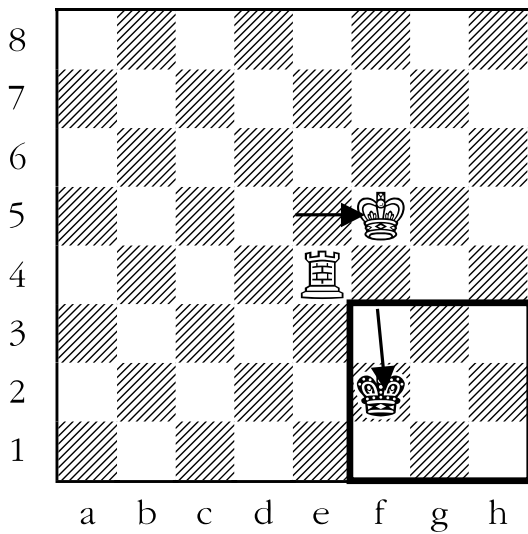
White can't make the box any smaller (rook to f4 will be answered by black's king taking the rook), so he moves his king closer to the black king, by moving to e5. Black returns his king to f3.



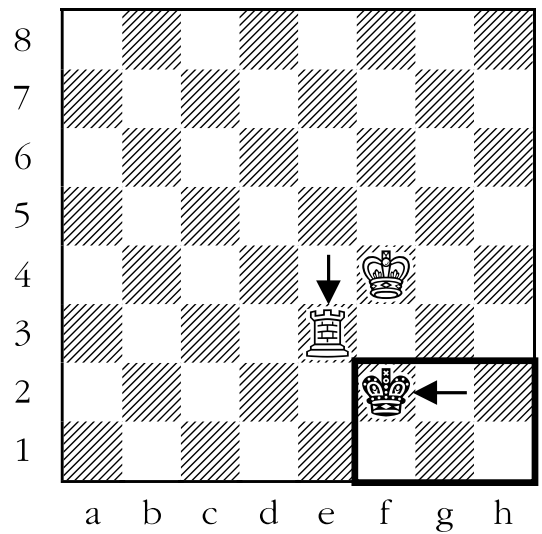
The white rook continues to make the box smaller for the black king, and goes to e4. The black king must retreat again, and goes back to g3.



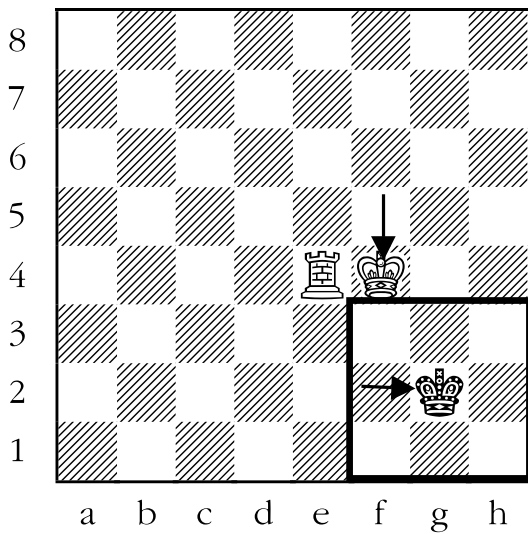
White still can't make the box any smaller, but can move his king closer to the black king, by moving to f5. Black must retreat, and chooses f2.



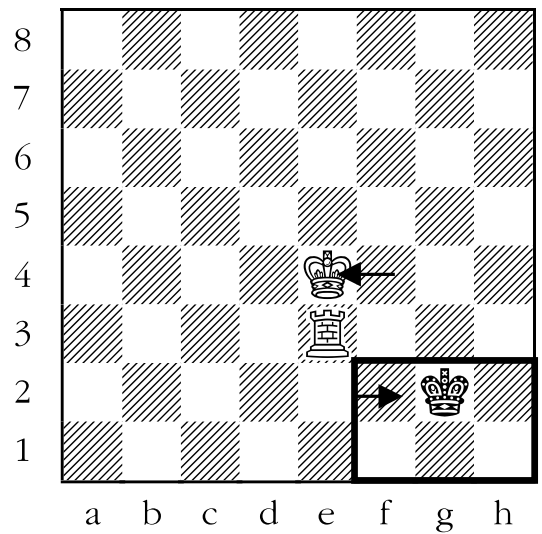
White's rook can't make the box any smaller, but the white king can get closer to the black king, by moving to f4. Black's king moves closer to the corner to g2.



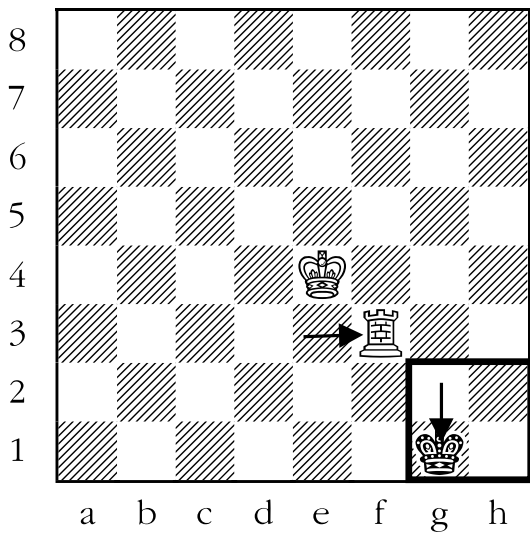
Once again white has to move either his rook or king. Moving the rook would make the box bigger, so a king move is called for. The only king move that still protects the rook, is king to e4. Black retreats the king to g2.



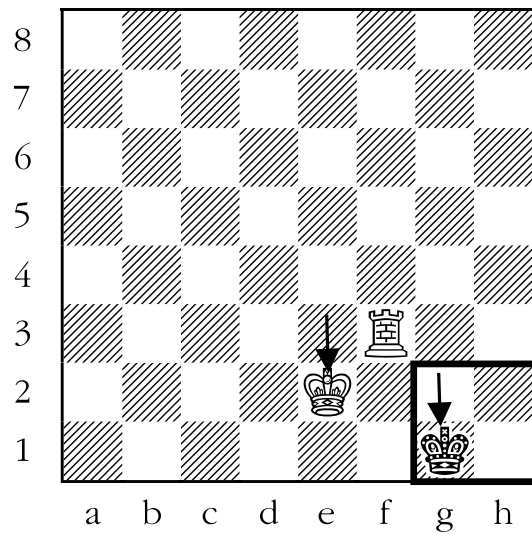
Now the white rook can make the box even smaller, by moving to e4. Black can keep his king as far away from the corner as possible, by moving to f2.



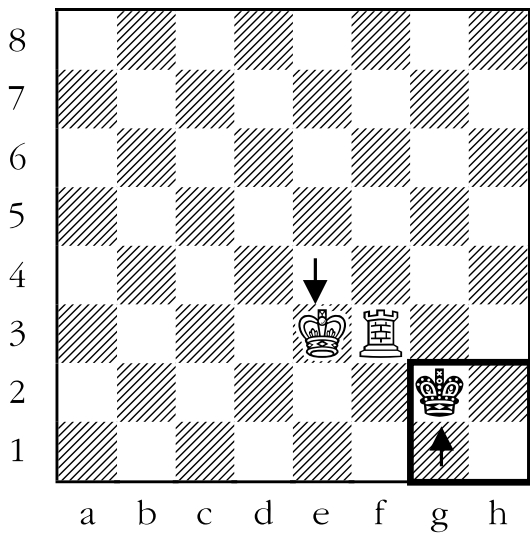
White shrinks the box again, by moving his rook to f3. Black is finally forced to the edge of the board; he chooses to move his king to g1.



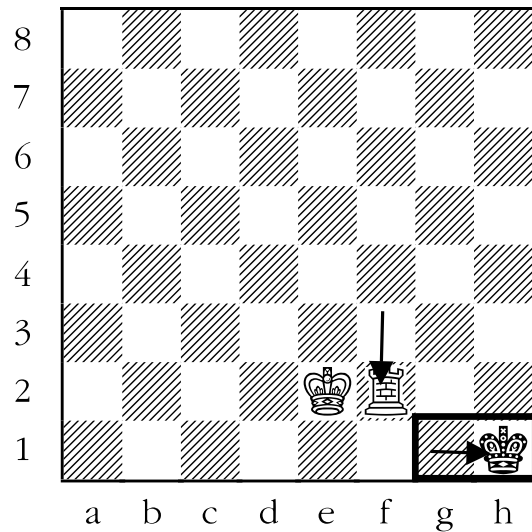
The box can't be shrunken; however, the king can move closer to the black king. White moves his king to e3. Black moves his king back to g2.



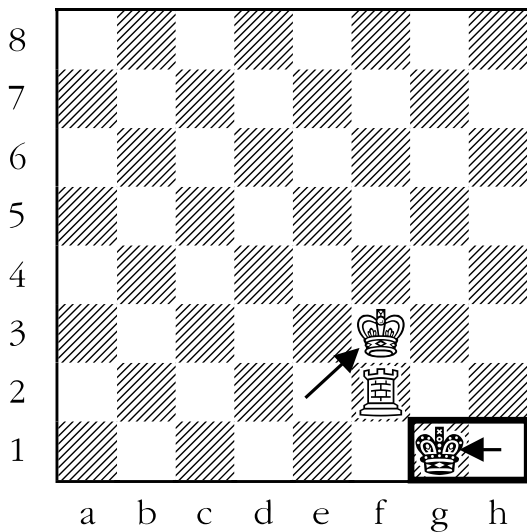
White finally is able to prevent the king from ever leaving the edge of the board, by moving his rook to f2. The black king has no other move than to go to h1.



White continues to send his king closer to his opponent's king, and moves it to e2. Black is forced back to the edge of the board, and chooses to place his king on g1.



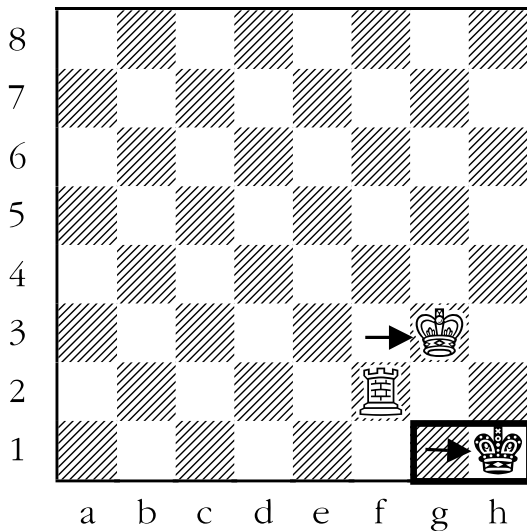
White moves his king closer to the black king - but not to f1, since that would be stalemate! Therefore, the king goes to f3, and the black king goes to the only legal square available, which is g1.



the two key ideas in the process of creating checkmates of this type:

1. Keep a constant eye on making the box smaller with your rook, guarded by your king, if possible. If that is not possible, then;
2. Move your king closer to your opponent's king.

White keeps moving his king closer to the black king, and goes to g3. Black is forced back into the corner.



Now white could make the box smaller by moving his rook to g2, but there are two very good reasons not to:

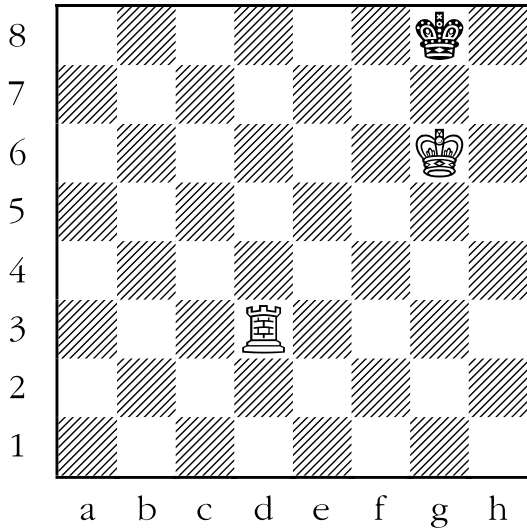
1. that move would put the black king in stalemate, which is a draw (tie).
2. if white moves his rook to f1, he will checkmate black!

This is a fairly lengthy example, and the purpose in presenting it is certainly not so that the students will have to memorize it. The reason it is given is to demonstrate

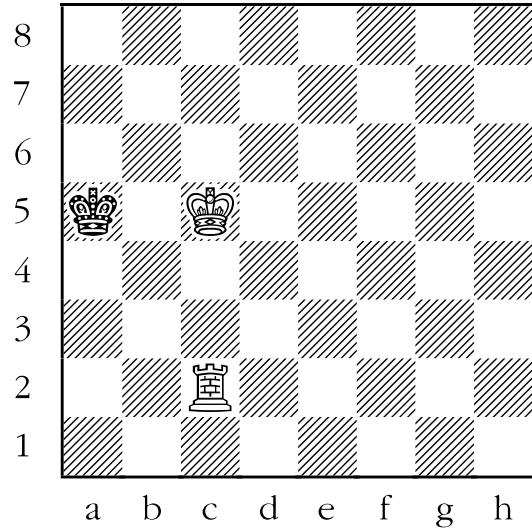
# Sheet 26-1: Checkmate with the Rook

Draw an arrow to show white's best move.

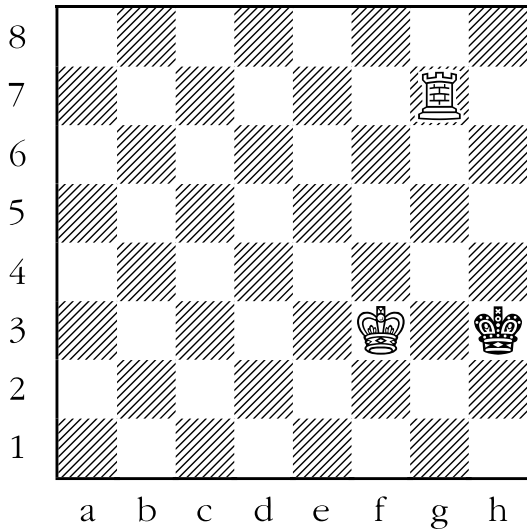
1.



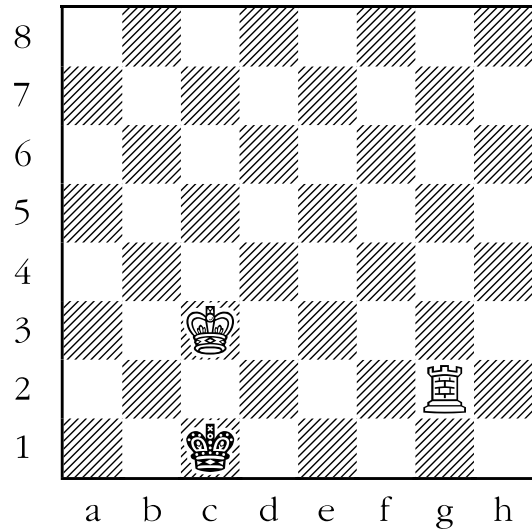
3.



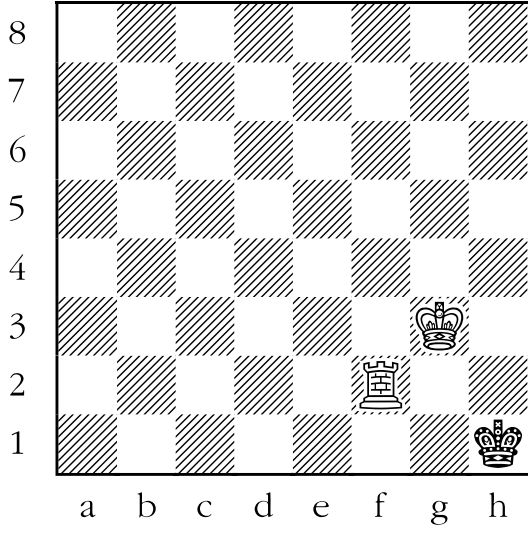
2.



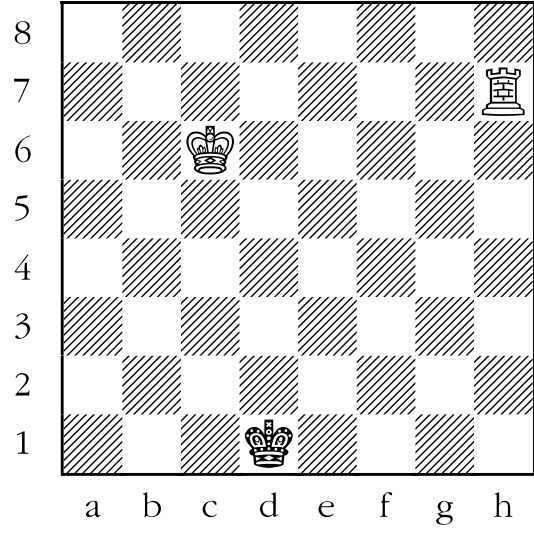
4.



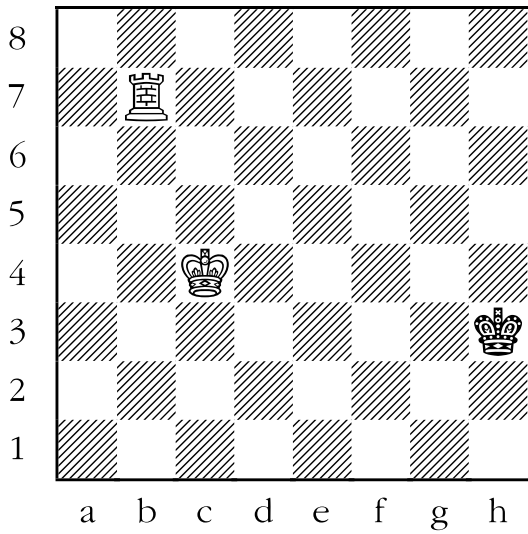
5.



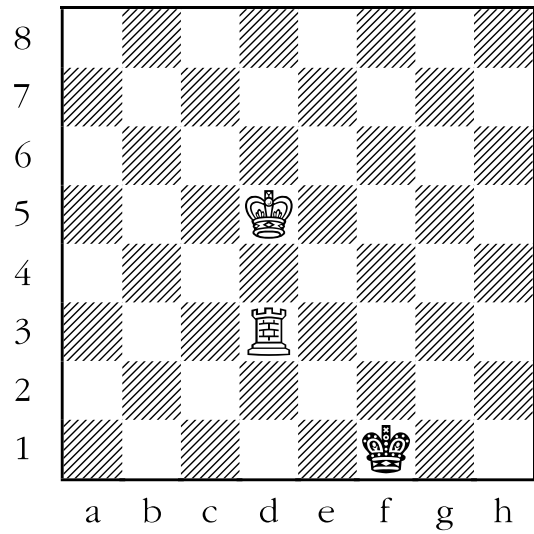
7.



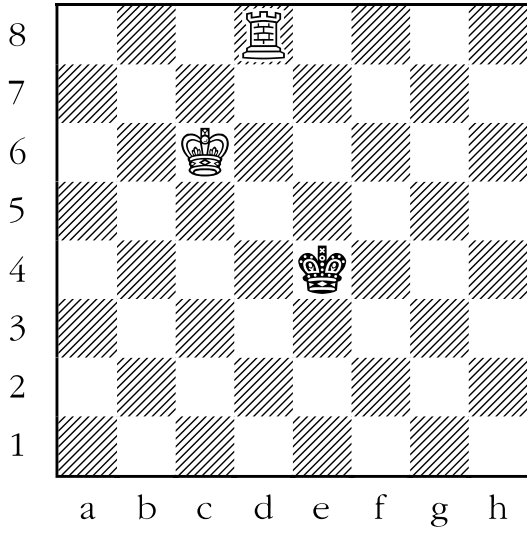
6.



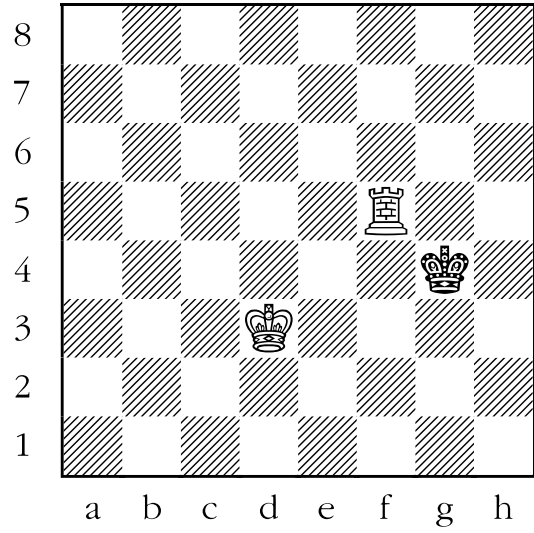
8.



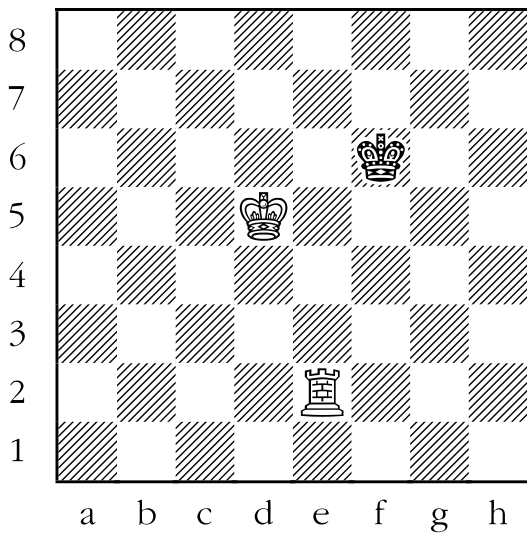
9.



11.



10.

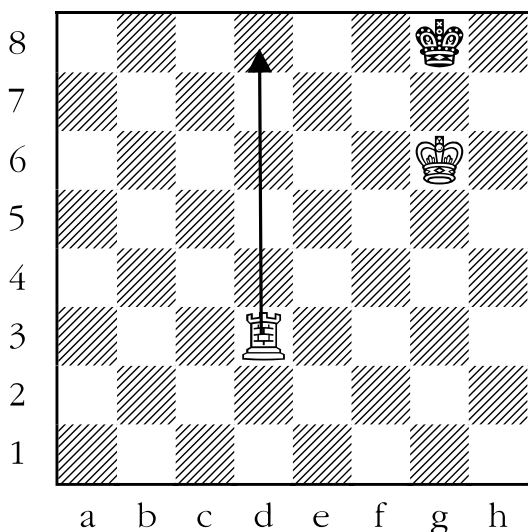
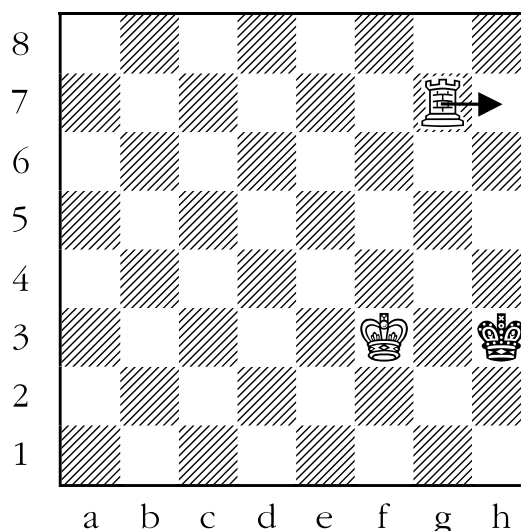


# Answer Sheet 26-1: Checkmate with the Rook

Draw an arrow to show white's best move.

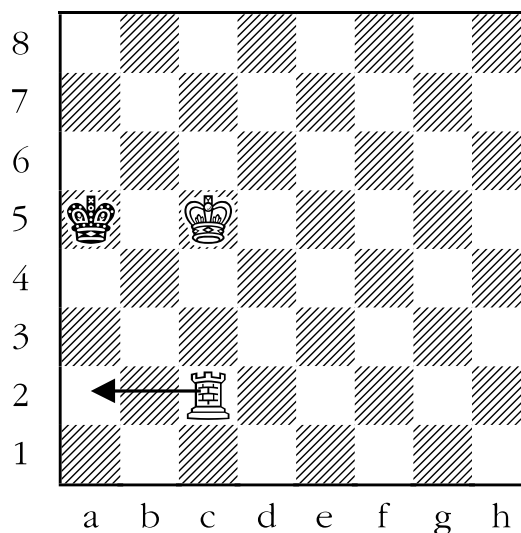
**1. ANSWER:** The first five questions are checkmate in one move for white.

The white king and black king are in direct opposition to one another. The white king is preventing the black king from escaping to f7, g7, or h7. White can checkmate black by playing rook to d8. The rook both attacks the king and controls its potential flight squares of f8 and h8.

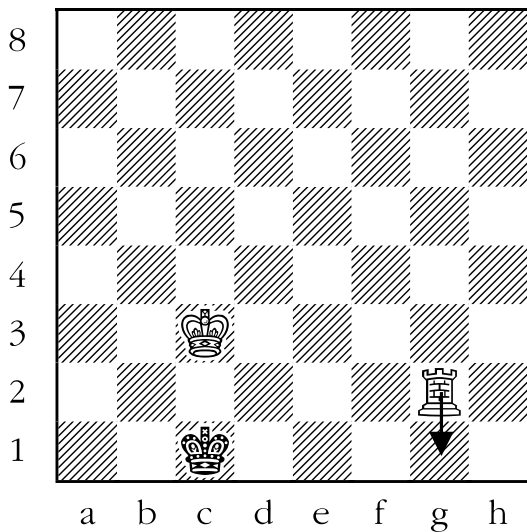


**2. ANSWER:** The white and black kings are in opposition again. White can checkmate the black king by moving his rook to h7. Moving the rook to g3 doesn't checkmate black, since the black king would be able to escape the check by moving to either h2 or h4.

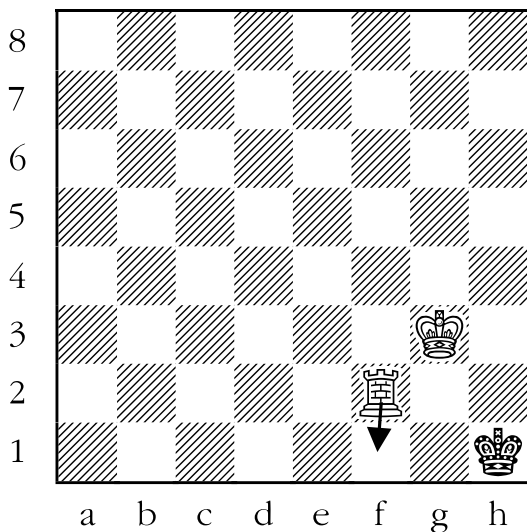
**3. ANSWER:** The white and black kings are in opposition. White can checkmate the black king by moving to a2.



**4. ANSWER:** The white and black kings are in opposition. The white rook can checkmate the black king by moving to g1. The alternative check, moving the rook to c2, allows the black king to escape to either b1 or d2.

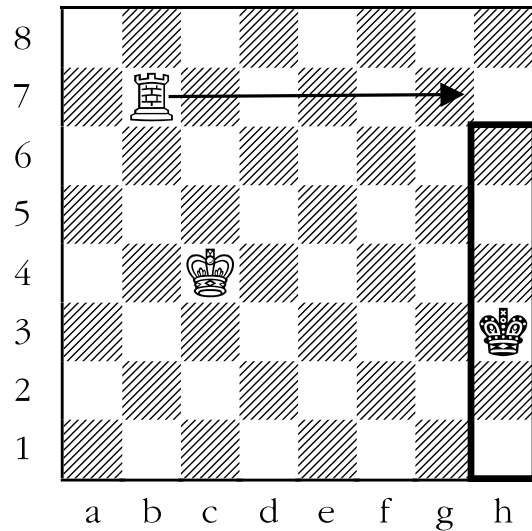


**5. ANSWER:** The white and black kings are not completely in opposition, but because the black king is stuck in the corner (and can't escape to what would be the square i2, if it existed), the rook can still deliver checkmate to the king by going to f1. The alternate check, moving the rook to h2, allows the black king to escape to g1.

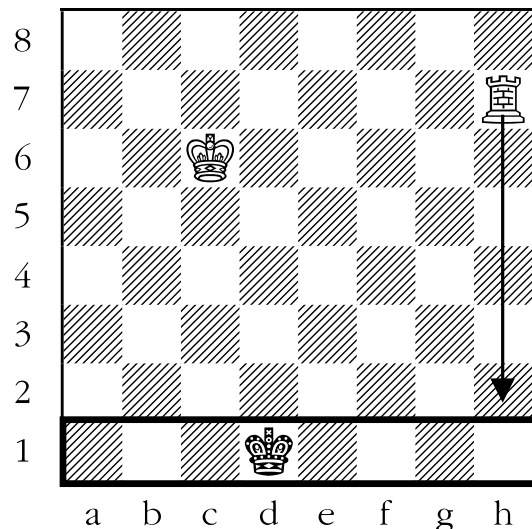


The next three have white confining black king to the edge of the board.

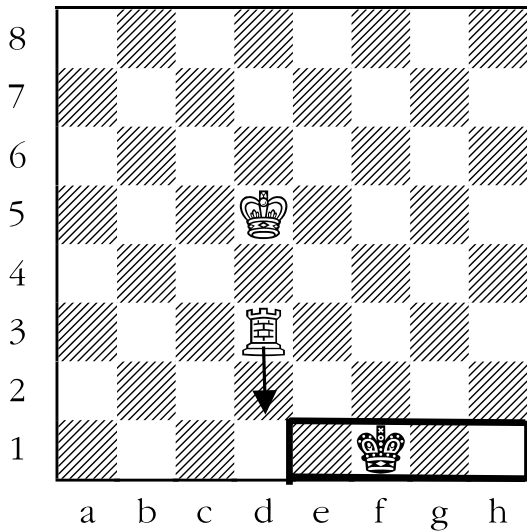
**6. ANSWER:** The black king is temporarily located on the edge of the board. The rook can keep it there permanently by going to g7. In that way the king can't leave the h-file, and white needs only to walk his king towards the black king.



**7. ANSWER:** The black king is located on the edge of the board. The white rook can trap the king there by moving to h2. White would then need only to bring his king closer to the action to checkmate black.

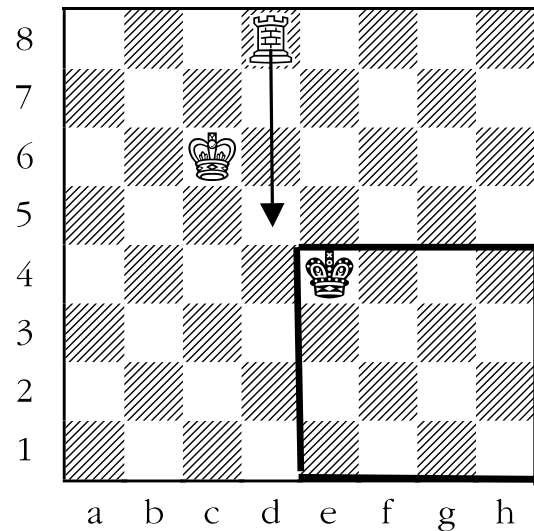


**8. ANSWER:** The black king is once again located on the edge of the board. White can keep the king there by moving to d2. If the black king attacks the rook by moving to e1, the rook can flee along white's second rank (to a2, for example).

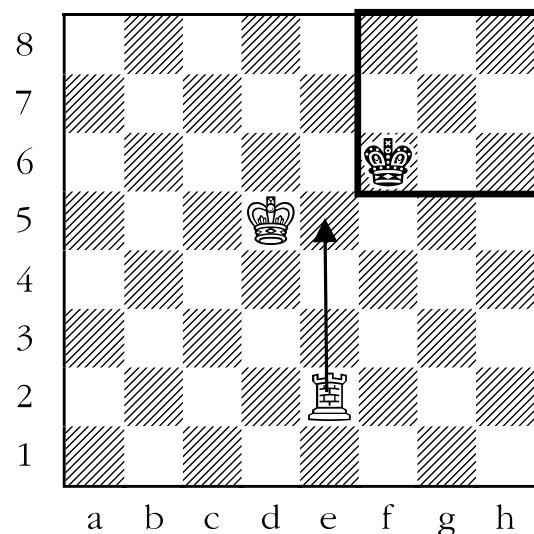


*The last three examples have the white rook make "the box" as small as possible.*

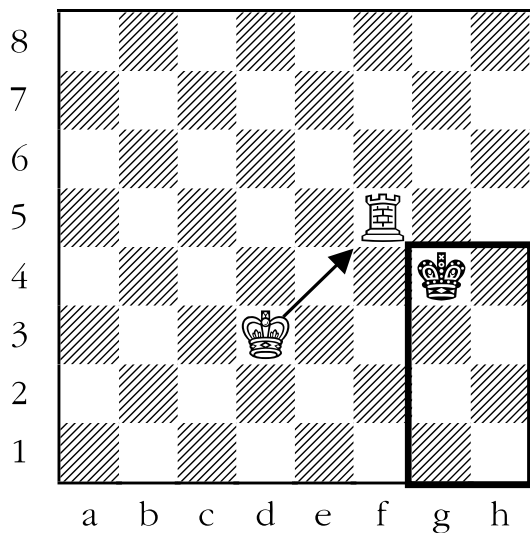
**9. ANSWER:** The "incredible shrinking box". The white rook can prevent the king from running to any square along the black fourth rank (i.e. e5, f5, g5, and h5), by moving to d5. The area in which the black king is free to roam has been reduced considerably.



**10. ANSWER:** The white rook can confine the black king further by moving to e5. The king can't cross black's fourth rank.



**11. ANSWER:** The white rook is confining the black king, but now the king is attacking the rook, and it looks like the rook must move and give the king some more escape room. But that is not so. The white king can guard the rook by moving to e4, which keeps the king in the box.



# Simplified Rules of Chess

In this section we do not pretend to encompass all eventualities which may occur at a chess club or tournament. In cases where a dispute occurs that is not covered in this manual, rely on common sense, and you should be okay.

For how the individual pieces move, refer to the Exercise sheets and Teacher's sheets in this manual.

## Check:

A player is not required to announce "check" to her opponent. If the opponent fails to notice that he is in check, then the player must retract his move and play another (also see **Illegal Move**, below).

## Chess Clock:

A chess clock is a timing device used in most adult, and some children, chess tournaments. The chess clock is really two clocks housed in one casing, connected together by a lever. On top of each half of the clock is a button. A player makes a move on the chessboard, then presses the button nearest him.

This starts the opponent's clock ticking. The players alternate making their move, then pressing their clock.

On the face of each clock, near the eleven, is a "flag." As a player's minute hand gets near the hour mark, the flag begins to rise. When the minute hand gets past the hour mark, the flag suddenly drops. The player runs out of time, and loses the game.

The clock times may be set using a knob on each of the clock's back. They may also be wound using two other knobs found on the back of the clocks.

A word of warning when using chess clocks: ***Do not over-wind the clock, nor allow the clock to become under-wound. It may ruin the device.***

## Clock Move:

This rule may only be used in games with a chess clock (see above). In this case, a move is not final until the player has pushed the button on his side of the clock. For example, a player could make a move, take her hand off of it, but retract the move

if she hadn't pushed the button on her side of the clock.

## Draw:

A game of chess may be drawn (tied) if any one of the following happens:

1. The players agree to a draw.
2. A position is reached in which neither side has any chance to win. Examples of this are: king versus king; king and knight versus king; and king and bishop versus king.
3. A position is reached which has already been reached twice before, and one of the players notices. For example, a player could keep checking his opponent back and forth because she is behind by a lot of material. If the same position arises three times, with the same player to move, the game is declared a draw. *Note that this rule is difficult to enforce if neither player is writing his moves down.*
4. *Fifty move rule.* There is a great deal of misunderstanding regarding this rule, even amongst adult tournament chess players. The rule: "If in the last fifty (50) moves, neither side has moved a pawn, nor has either side made any captures, the game is declared a draw". A "move" is defined as one white move plus one black move. Of course it is difficult to keep track without writing the moves down. One possible solution is for one of the players to keep track by announcing the count, after every move the opponent makes.

## Illegal Move:

If a player completes an illegal move (e.g. moves a piece to a square where the piece can't legally go, or leaves his king in check) the player is allowed to take back the move, and play another. If possible, this move must be made with the piece that the player previously moved. If that is not possible, the player may move any piece.

## Illegal Position:

If a position has been found to be illegal, the moves must be taken back to the point at which the position was legal, if possible. If that is not possible because the problem occurred too far back, the game should be annulled and a new game started.

Likewise, if the board is found to be set up incorrectly (e.g. the king and queen are

interchanged) the game is annulled and a new game started.

### **Release Move:**

This term is used to determine when a move is final, and can't be taken back. If a game is played using the **Release Move Rule**, and a player moves a piece and then takes her hand off of it, the move is final and can't be taken back.

Unlike the **Touch Move Rule** (see below), the player is allowed to touch a piece, move it, and then take the move back so long as the player's hand has been on the piece the entire time.

### **Touch Move:**

This term is used to determine when a move is final, and can't be taken back. If a game is played using the Touch Move Rule, and a player touches one of his own pieces he must move it, if he can do so legally. Likewise, if a player touches one of his opponent's pieces, he must take it, if he can do so legally.

If a player wishes to correct a piece which is between squares, or has fallen over, the player must say, "I adjust", and then may fix the piece without incurring a penalty.

Also, cases where a player accidentally touches a piece with an elbow or leg is not a violation of the Touch Move Rule, and will not be penalized.

This is the rule that is used in every adult tournament in Canada. One of the advantages of the rule is that it teaches the player to think with her head, not with her hands.

## Running a Chess Tournament

You don't have to know all of the rules, or even how to move the pieces, in order to run a chess tournament. But there are a few things you will have to work out in advance if you hope to have a successful tournament.

### You Touched It! So What !?

You will be hearing this and much more if you don't specify the rules for moving pieces in advance. Not how the pieces move, but rather *at what point a move is final and can't be taken back*. There are three ways to determine whether you have completed your move:

1. **“Clock move”**. This is only applicable if you use chess clocks, which is unlikely. In the event that you do have chess clocks, one possible variation is that a move is final only if the player has pressed the clock.
2. **“Release move”**. In this case, if you take your hand off of a piece after you move it then the move is final. With this rule, the player is allowed to touch a piece, move it to another square, and hold her finger on it. The move is not yet final until the player releases her finger.
3. **“Touch move”**. This is the rule used in adult tournaments. If you touch one of your own pieces, and can move it legally, you must do so. If you touch one of your opponent's pieces, and can take it legally, you must do so. If a player wants to straighten out a piece, or put a piece back up which has fallen over, the player says “I adjust”, and then can touch the piece without incurring a penalty. Of course the touch move rule is only used if the player intentionally touches the piece. Accidentally brushing a piece with an elbow, for example, will not be punished by the “touch move” rule.

Probably at first you should use rule number two. Only after the players have gained experience would you switch to rule three, the “touch move” rule. The idea behind the “touch move” rule is to teach the player to think with his head – not with his hands. *Whichever rule you choose, announce it in advance.*

## Who Plays Whom?

Most tournaments fall into two categories: **Round Robin**, and **Swiss System**. Round Robins are the easiest to pair (pair in chess means to determine who plays whom). All you do is follow the instructions in the section: **Round Robin Pairing Rules**, found in this manual. The only downside of this type of tournament is that if you have, say, 25 players, you might not be able to finish all of the games in a month. Also, players who are not doing well could drop out, which could mess up your tournament.

You could modify this by creating smaller preliminary Round Robins, then having the top one or two finishers from each group going to some sort of “A Finals”. The next one or two players from each preliminary group would go to the “B Finals”, the next one or two players from each preliminary group would go to the “C Finals” and so on. The finals would be conducted using the Round Robin format, just like the preliminaries were.

The Swiss System was designed to produce a tournament winner in only a few games from a tournament of any number of players. The basic rule of this system is to pair people with the same number of points together, and to pair the same people only once per tournament.

This system has a number of advantages, but for your first tournaments the Round Robin should be used. After all one should learn to walk before one begins running. If this warning does not deter you, or if you feel up to the challenge, see the section: **Simplified Swiss Pairing Rules**.

## Supervision

You will need people to supervise the games, mostly to handle innocent disputes about whose move it is, what square a piece is on, etc. Probably one supervisor per dozen players is more than adequate. Don't hesitate to deputize more experienced players to act as assistants when they aren't involved in their own games.

# Round Robin Pairing Rules

Below you will find Tables of Round Robin pairings. The purpose of these tables is to allow all of the players to finish the tournament at the same time, as well as have each receive about the same number of Whites and Blacks. Of course, these tables are guidelines only. You may ignore the tables below if you like, but it is risky to do so.

However, you should read how to mark scores on the crosstable (results sheet). One sample blank crosstable and one partly filled crosstable are found in the Section: **Crosstables** in this manual.

## How to read and use the tables:

Suppose you have thirteen players, and want to divide them up into two sections of six and seven players, respectively. Go to the table below

marked "For five or six players". In round one, player one is white versus player six, player two is white versus player five, and player three is white versus player four. That covers your six-player section. For round two, just follow the numbers for round two, etc.

Now go to the table below marked "For seven or eight players". In round one, player one has white against player eight, player two has white against player seven, player three has white against player six, and player four has white against player five. Because there are only seven players in the section, player one, who was going to play player eight, gets a **bye**. This means he sits out the first round, but will play all of the remaining rounds. For round two, just follow the numbers for round two, etc.

## Tables:

The first named player has the white pieces for that game.

### For three or four players

#### Round Number:

|          |         |         |
|----------|---------|---------|
| <b>1</b> | 1 vs. 4 | 2 vs. 3 |
| <b>2</b> | 4 vs. 3 | 1 vs. 2 |
| <b>3</b> | 2 vs. 4 | 3 vs. 1 |

### For five or six players

#### Round Number:

|          |         |         |         |
|----------|---------|---------|---------|
| <b>1</b> | 1 vs. 6 | 2 vs. 5 | 3 vs. 4 |
| <b>2</b> | 6 vs. 4 | 5 vs. 3 | 1 vs. 2 |
| <b>3</b> | 2 vs. 6 | 3 vs. 1 | 4 vs. 5 |
| <b>4</b> | 6 vs. 5 | 1 vs. 4 | 2 vs. 3 |
| <b>5</b> | 3 vs. 6 | 4 vs. 2 | 5 vs. 1 |

### For seven or eight players

#### Round Number:

|          |         |         |         |         |
|----------|---------|---------|---------|---------|
| <b>1</b> | 1 vs. 8 | 2 vs. 7 | 3 vs. 6 | 4 vs. 5 |
| <b>2</b> | 8 vs. 5 | 6 vs. 4 | 7 vs. 3 | 1 vs. 2 |
| <b>3</b> | 2 vs. 8 | 3 vs. 1 | 4 vs. 7 | 5 vs. 6 |
| <b>4</b> | 8 vs. 6 | 7 vs. 5 | 1 vs. 4 | 2 vs. 3 |
| <b>5</b> | 3 vs. 8 | 4 vs. 2 | 5 vs. 1 | 6 vs. 7 |
| <b>6</b> | 8 vs. 7 | 1 vs. 6 | 2 vs. 5 | 3 vs. 4 |
| <b>7</b> | 4 vs. 8 | 5 vs. 3 | 6 vs. 2 | 7 vs. 1 |

### For nine or ten players

#### Round Number:

|          |          |         |         |         |         |
|----------|----------|---------|---------|---------|---------|
| <b>1</b> | 1 vs. 10 | 2 vs. 9 | 3 vs. 8 | 4 vs. 7 | 5 vs. 6 |
| <b>2</b> | 10 vs. 6 | 7 vs. 5 | 8 vs. 4 | 9 vs. 3 | 1 vs. 2 |
| <b>3</b> | 2 vs. 10 | 3 vs. 1 | 4 vs. 9 | 5 vs. 8 | 6 vs. 7 |
| <b>4</b> | 10 vs. 7 | 8 vs. 6 | 9 vs. 5 | 1 vs. 4 | 2 vs. 3 |
| <b>5</b> | 3 vs. 10 | 4 vs. 2 | 5 vs. 1 | 6 vs. 9 | 7 vs. 8 |
| <b>6</b> | 10 vs. 8 | 9 vs. 7 | 1 vs. 6 | 2 vs. 5 | 3 vs. 4 |
| <b>7</b> | 4 vs. 10 | 5 vs. 3 | 6 vs. 2 | 7 vs. 1 | 8 vs. 9 |
| <b>8</b> | 10 vs. 9 | 1 vs. 8 | 2 vs. 7 | 3 vs. 6 | 4 vs. 5 |
| <b>9</b> | 5 vs. 10 | 6 vs. 4 | 7 vs. 3 | 8 vs. 2 | 9 vs. 1 |

### For eleven or twelve players

#### Round Number:

|    |           |          |          |          |          |           |
|----|-----------|----------|----------|----------|----------|-----------|
| 1  | 1 vs. 12  | 2 vs. 11 | 3 vs. 10 | 4 vs. 9  | 5 vs. 8  | 6 vs. 7   |
| 2  | 12 vs. 7  | 8 vs. 6  | 9 vs. 5  | 10 vs. 4 | 11 vs. 3 | 1 vs. 2   |
| 3  | 2 vs. 12  | 3 vs. 1  | 4 vs. 11 | 5 vs. 10 | 6 vs. 9  | 7 vs. 8   |
| 4  | 12 vs. 8  | 9 vs. 7  | 10 vs. 6 | 11 vs. 5 | 1 vs. 4  | 2 vs. 3   |
| 5  | 3 vs. 12  | 4 vs. 2  | 5 vs. 1  | 6 vs. 11 | 7 vs. 10 | 8 vs. 9   |
| 6  | 12 vs. 9  | 10 vs. 8 | 11 vs. 7 | 1 vs. 6  | 2 vs. 5  | 3 vs. 4   |
| 7  | 4 vs. 12  | 5 vs. 3  | 6 vs. 2  | 7 vs. 1  | 8 vs. 11 | 9 vs. 10  |
| 8  | 12 vs. 10 | 11 vs. 9 | 1 vs. 8  | 2 vs. 7  | 3 vs. 6  | 4 vs. 5   |
| 9  | 5 vs. 12  | 6 vs. 4  | 7 vs. 3  | 8 vs. 2  | 9 vs. 1  | 10 vs. 11 |
| 10 | 12 vs. 11 | 1 vs. 10 | 2 vs. 9  | 3 vs. 8  | 4 vs. 7  | 5 vs. 6   |
| 11 | 6 vs. 12  | 7 vs. 5  | 8 vs. 4  | 9 vs. 3  | 10 vs. 2 | 11 vs. 1  |

### For thirteen or fourteen players

#### Round Number:

|    |           |           |          |          |          |           |           |
|----|-----------|-----------|----------|----------|----------|-----------|-----------|
| 1  | 1 vs. 14  | 2 vs. 13  | 3 vs. 12 | 4 vs. 11 | 5 vs. 10 | 6 vs. 9   | 7 vs. 8   |
| 2  | 14 vs. 8  | 9 vs. 7   | 10 vs. 6 | 11 vs. 5 | 12 vs. 4 | 13 vs. 3  | 1 vs. 2   |
| 3  | 2 vs. 14  | 3 vs. 1   | 4 vs. 13 | 5 vs. 12 | 6 vs. 11 | 7 vs. 10  | 8 vs. 9   |
| 4  | 14 vs. 9  | 10 vs. 8  | 11 vs. 7 | 12 vs. 6 | 13 vs. 5 | 1 vs. 4   | 2 vs. 3   |
| 5  | 3 vs. 14  | 4 vs. 2   | 5 vs. 1  | 6 vs. 13 | 7 vs. 12 | 8 vs. 11  | 9 vs. 10  |
| 6  | 14 vs. 10 | 11 vs. 9  | 12 vs. 8 | 13 vs. 7 | 1 vs. 6  | 2 vs. 5   | 3 vs. 4   |
| 7  | 4 vs. 14  | 5 vs. 3   | 6 vs. 2  | 7 vs. 1  | 8 vs. 13 | 9 vs. 12  | 10 vs. 11 |
| 8  | 14 vs. 11 | 12 vs. 10 | 13 vs. 9 | 1 vs. 8  | 2 vs. 7  | 3 vs. 6   | 4 vs. 5   |
| 9  | 5 vs. 14  | 6 vs. 4   | 7 vs. 3  | 8 vs. 2  | 9 vs. 1  | 10 vs. 13 | 11 vs. 12 |
| 10 | 14 vs. 12 | 13 vs. 11 | 1 vs. 10 | 2 vs. 9  | 3 vs. 8  | 4 vs. 7   | 5 vs. 6   |
| 11 | 6 vs. 14  | 7 vs. 5   | 8 vs. 4  | 9 vs. 3  | 10 vs. 2 | 11 vs. 1  | 12 vs. 13 |
| 12 | 14 vs. 13 | 1 vs. 12  | 2 vs. 11 | 3 vs. 10 | 4 vs. 9  | 5 vs. 8   | 6 vs. 7   |
| 13 | 7 vs. 14  | 8 vs. 6   | 9 vs. 5  | 10 vs. 4 | 11 vs. 3 | 12 vs. 2  | 13 vs. 1  |

### For fifteen or sixteen players

#### Round Number:

|    |           |           |           |          |          |           |           |           |
|----|-----------|-----------|-----------|----------|----------|-----------|-----------|-----------|
| 1  | 1 vs. 16  | 2 vs. 15  | 3 vs. 14  | 4 vs. 13 | 5 vs. 12 | 6 vs. 11  | 7 vs. 10  | 8 vs. 9   |
| 2  | 16 vs. 9  | 10 vs. 8  | 11 vs. 7  | 12 vs. 6 | 13 vs. 5 | 14 vs. 4  | 15 vs. 3  | 1 vs. 2   |
| 3  | 2 vs. 16  | 3 vs. 1   | 4 vs. 15  | 5 vs. 14 | 6 vs. 13 | 7 vs. 12  | 8 vs. 11  | 9 vs. 10  |
| 4  | 16 vs. 10 | 11 vs. 9  | 12 vs. 8  | 13 vs. 7 | 14 vs. 6 | 15 vs. 5  | 1 vs. 4   | 2 vs. 3   |
| 5  | 3 vs. 16  | 4 vs. 2   | 5 vs. 1   | 6 vs. 15 | 7 vs. 14 | 8 vs. 13  | 9 vs. 12  | 10 vs. 11 |
| 6  | 16 vs. 11 | 12 vs. 10 | 13 vs. 9  | 14 vs. 8 | 15 vs. 7 | 1 vs. 6   | 2 vs. 5   | 3 vs. 4   |
| 7  | 4 vs. 16  | 5 vs. 3   | 6 vs. 2   | 7 vs. 1  | 8 vs. 15 | 9 vs. 14  | 10 vs. 13 | 11 vs. 12 |
| 8  | 16 vs. 12 | 13 vs. 11 | 14 vs. 10 | 15 vs. 9 | 1 vs. 8  | 2 vs. 7   | 3 vs. 6   | 4 vs. 5   |
| 9  | 5 vs. 16  | 6 vs. 4   | 7 vs. 3   | 8 vs. 2  | 9 vs. 1  | 10 vs. 15 | 11 vs. 14 | 12 vs. 13 |
| 10 | 16 vs. 13 | 14 vs. 12 | 15 vs. 11 | 1 vs. 10 | 2 vs. 9  | 3 vs. 8   | 4 vs. 7   | 5 vs. 6   |
| 11 | 6 vs. 16  | 7 vs. 5   | 8 vs. 4   | 9 vs. 3  | 10 vs. 2 | 11 vs. 1  | 12 vs. 15 | 13 vs. 14 |
| 12 | 16 vs. 14 | 15 vs. 13 | 1 vs. 12  | 2 vs. 11 | 3 vs. 10 | 4 vs. 9   | 5 vs. 8   | 6 vs. 7   |
| 13 | 7 vs. 16  | 8 vs. 6   | 9 vs. 5   | 10 vs. 4 | 11 vs. 3 | 12 vs. 2  | 13 vs. 1  | 14 vs. 15 |
| 14 | 16 vs. 15 | 1 vs. 14  | 2 vs. 13  | 3 vs. 12 | 4 vs. 11 | 5 vs. 10  | 6 vs. 9   | 7 vs. 8   |
| 15 | 8 vs. 16  | 9 vs. 7   | 10 vs. 6  | 11 vs. 5 | 12 vs. 4 | 13 vs. 3  | 14 vs. 2  | 15 vs. 1  |

### For seventeen or eighteen players

#### Round Number:

|           |           |           |           |           |          |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|
| <b>1</b>  | 1 vs. 18  | 2 vs. 17  | 3 vs. 16  | 4 vs. 15  | 5 vs. 14 | 6 vs. 13  | 7 vs. 12  | 8 vs. 11  | 9 vs. 10  |
| <b>2</b>  | 18 vs. 10 | 11 vs. 9  | 12 vs. 8  | 13 vs. 7  | 14 vs. 6 | 15 vs. 5  | 16 vs. 4  | 17 vs. 3  | 1 vs. 2   |
| <b>3</b>  | 2 vs. 18  | 3 vs. 1   | 4 vs. 17  | 5 vs. 16  | 6 vs. 15 | 7 vs. 14  | 8 vs. 13  | 9 vs. 12  | 10 vs. 11 |
| <b>4</b>  | 18 vs. 11 | 12 vs. 10 | 13 vs. 9  | 14 vs. 8  | 15 vs. 7 | 16 vs. 6  | 17 vs. 5  | 1 vs. 4   | 2 vs. 3   |
| <b>5</b>  | 3 vs. 18  | 4 vs. 2   | 5 vs. 1   | 6 vs. 17  | 7 vs. 16 | 8 vs. 15  | 9 vs. 14  | 10 vs. 13 | 11 vs. 12 |
| <b>6</b>  | 18 vs. 12 | 13 vs. 11 | 14 vs. 10 | 15 vs. 9  | 16 vs. 8 | 17 vs. 7  | 1 vs. 6   | 2 vs. 5   | 3 vs. 4   |
| <b>7</b>  | 4 vs. 18  | 5 vs. 3   | 6 vs. 2   | 7 vs. 1   | 8 vs. 17 | 9 vs. 16  | 10 vs. 15 | 11 vs. 14 | 12 vs. 13 |
| <b>8</b>  | 18 vs. 13 | 14 vs. 12 | 15 vs. 11 | 16 vs. 10 | 17 vs. 9 | 1 vs. 8   | 2 vs. 7   | 3 vs. 6   | 4 vs. 5   |
| <b>9</b>  | 5 vs. 18  | 6 vs. 4   | 7 vs. 3   | 8 vs. 2   | 9 vs. 1  | 10 vs. 17 | 11 vs. 16 | 12 vs. 15 | 13 vs. 14 |
| <b>10</b> | 18 vs. 14 | 15 vs. 13 | 16 vs. 12 | 17 vs. 11 | 1 vs. 10 | 2 vs. 9   | 3 vs. 8   | 4 vs. 7   | 5 vs. 6   |
| <b>11</b> | 6 vs. 18  | 7 vs. 5   | 8 vs. 4   | 9 vs. 3   | 10 vs. 2 | 11 vs. 1  | 12 vs. 17 | 13 vs. 16 | 14 vs. 15 |
| <b>12</b> | 18 vs. 15 | 16 vs. 14 | 17 vs. 13 | 1 vs. 12  | 2 vs. 11 | 3 vs. 10  | 4 vs. 9   | 5 vs. 8   | 6 vs. 7   |
| <b>13</b> | 7 vs. 18  | 8 vs. 6   | 9 vs. 5   | 10 vs. 4  | 11 vs. 3 | 12 vs. 2  | 13 vs. 1  | 14 vs. 17 | 15 vs. 16 |
| <b>14</b> | 18 vs. 16 | 17 vs. 15 | 1 vs. 14  | 2 vs. 13  | 3 vs. 12 | 4 vs. 11  | 5 vs. 10  | 6 vs. 9   | 7 vs. 8   |
| <b>15</b> | 8 vs. 18  | 9 vs. 7   | 10 vs. 6  | 11 vs. 5  | 12 vs. 4 | 13 vs. 3  | 14 vs. 2  | 15 vs. 1  | 16 vs. 17 |
| <b>16</b> | 18 vs. 17 | 1 vs. 16  | 2 vs. 15  | 3 vs. 14  | 4 vs. 13 | 5 vs. 12  | 6 vs. 11  | 7 vs. 10  | 8 vs. 9   |
| <b>17</b> | 9 vs. 18  | 10 vs. 8  | 11 vs. 7  | 12 vs. 6  | 13 vs. 5 | 14 vs. 4  | 15 vs. 3  | 16 vs. 2  | 17 vs. 1  |

# THE ROUND ROBIN IN ACTION

On the next page, you will see a partially completed “round robin” type of tournament. This fictitious tournament, held at Drawville School, shows the results after four rounds.

Here is how you would read and record the results. First, turn back to the previous section, Round Robin Pairing Rules. Since this is a nine-player tournament, find the table for nine or ten players.

In round number one, the following match ups occurred:

|          |        |           |
|----------|--------|-----------|
| Player 1 | played | Player 10 |
| Player 2 | played | Player 9  |
| Player 3 | played | Player 8  |
| Player 4 | played | Player 7  |
| Player 5 | played | Player 6  |

Now flip to the sample tournament crosstable report form. On it, you will see a list of numbers running along the left-hand side, a list of names running beside it. This is a list of players, each of whom has their own “pairing number”, which is simply a unique identification device.

To the right of the names, you will see a big square, with little squares inside, some of whom have “1”, “0” or “1/2” (also written as “.5”) in them. These small squares contain the results of the games between the players. Let’s begin to read the action.

In round one:

- Player 1 played Player 10. There is no player 10, so there is no result marked. Player 1 would get a “bye” (sit out) this round.
- Player 2 played Player 9. Look for player 2, along the left side of the sheet.

That player is Susan Knight. Then look along the top row of the crosstable, and find the column numbered 9. Where row 2 meets column 9, you will see a “1” in that box. This means that Susan won that game. Where row 9 meets column 2, you will see a “0” in that box. Player 9, Al Pawn, lost to Susan game.

Any time you see a “1/2” or “.5” that means that the game was a draw (tie). This same method of viewing can be done with any completed game.

The sample crosstable has been filled with results up to the end of round four. Some of the players, namely Player 1, Player 2, Player 6, and Player 7, have only played three games. They have all had the bye. The other players have not yet had the bye, but will later in the tournament.

As the tournament continues, more and more of the small boxes get filled with “1”, “0”, or “1/2” (also known as “.5”), as results become known. After all of the games between these players are completed, every single small box will be filled with a result.

To determine a player’s score, just add up the “1”s and “1/2”s on the horizontal row of that player. For example, Player 5, Tom Rook, has two “1”s (wins), one “1/2” (draw), and one “0” (loss). His total score at the moment is 2.5 out of 4 games played.



# TOURNAMENT REPORT FORM



Tournament: **DRAWVILLE SCHOOL CHAMPIONSHIP**

Start Date: **March 1, 1997**

Section: **A-FINALS**

Finish Date: **May 1, 1997**

| #  | FULL NAME       | 1 | 2 | 3  | 4  | 5  | 6  | 7 | 8  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |
|----|-----------------|---|---|----|----|----|----|---|----|---|----|----|----|----|----|----|----|----|----|----|----|-------|
| 1  | John King       | ■ | 0 | 1  | 0  |    |    |   |    |   |    |    |    |    |    |    |    |    |    |    |    |       |
| 2  | Susan Knight    | 1 | ■ | 0  |    |    |    |   |    | 1 |    |    |    |    |    |    |    |    |    |    |    |       |
| 3  | Samantha Bishop | 0 | 1 | ■  |    |    |    |   | .5 | 1 |    |    |    |    |    |    |    |    |    |    |    |       |
| 4  | Sally Queen     | 1 |   |    | ■  |    |    | 0 | .5 | 1 |    |    |    |    |    |    |    |    |    |    |    |       |
| 5  | Tom Rook        |   |   |    |    | ■  | 0  | 1 | .5 | 1 |    |    |    |    |    |    |    |    |    |    |    |       |
| 6  | Mary Mate       |   |   |    |    | 1  | ■  | 1 | .5 |   |    |    |    |    |    |    |    |    |    |    |    |       |
| 7  | Bill Check      |   |   |    | 1  | 0  | 0  | ■ |    |   |    |    |    |    |    |    |    |    |    |    |    |       |
| 8  | James Draw      |   |   | .5 | .5 | .5 | .5 |   | ■  |   |    |    |    |    |    |    |    |    |    |    |    |       |
| 9  | Al Pawn         |   | 0 | 0  | 0  | 0  |    |   |    | ■ |    |    |    |    |    |    |    |    |    |    |    |       |
| 10 |                 |   |   |    |    |    |    |   |    |   | ■  |    |    |    |    |    |    |    |    |    |    |       |
| 11 |                 |   |   |    |    |    |    |   |    |   |    | ■  |    |    |    |    |    |    |    |    |    |       |
| 12 |                 |   |   |    |    |    |    |   |    |   |    |    | ■  |    |    |    |    |    |    |    |    |       |
| 13 |                 |   |   |    |    |    |    |   |    |   |    |    |    | ■  |    |    |    |    |    |    |    |       |
| 14 |                 |   |   |    |    |    |    |   |    |   |    |    |    |    | ■  |    |    |    |    |    |    |       |
| 15 |                 |   |   |    |    |    |    |   |    |   |    |    |    |    |    | ■  |    |    |    |    |    |       |
| 16 |                 |   |   |    |    |    |    |   |    |   |    |    |    |    |    |    | ■  |    |    |    |    |       |
| 17 |                 |   |   |    |    |    |    |   |    |   |    |    |    |    |    |    |    | ■  |    |    |    |       |
| 18 |                 |   |   |    |    |    |    |   |    |   |    |    |    |    |    |    |    |    | ■  |    |    |       |
| 19 |                 |   |   |    |    |    |    |   |    |   |    |    |    |    |    |    |    |    |    | ■  |    |       |
| 20 |                 |   |   |    |    |    |    |   |    |   |    |    |    |    |    |    |    |    |    |    | ■  |       |

The result of each game is posted in two boxes. Here we see that player 1, John King lost to player 4, Sally Queen. We also see that Sally Queen beat John King.

This is a partially completed sample Round Robin crosstable.

Each player has his or her own unique pairing number. In this case Al Pawn has the pairing number of 9.



# C.F.C. TOURNAMENT REPORT FORM



Tournament: \_\_\_\_\_ Start Date: \_\_\_\_\_

Section: \_\_\_\_\_ Finish Date: \_\_\_\_\_

| #  | FULL NAME | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |  |
|----|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|-------|--|
| 1  |           | ■ |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 2  |           |   | ■ |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 3  |           |   |   | ■ |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 4  |           |   |   |   | ■ |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 5  |           |   |   |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 6  |           |   |   |   |   |   | ■ |   |   |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 7  |           |   |   |   |   |   |   | ■ |   |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 8  |           |   |   |   |   |   |   |   | ■ |   |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 9  |           |   |   |   |   |   |   |   |   | ■ |    |    |    |    |    |    |    |    |    |    |    |       |  |
| 10 |           |   |   |   |   |   |   |   |   |   | ■  |    |    |    |    |    |    |    |    |    |    |       |  |
| 11 |           |   |   |   |   |   |   |   |   |   |    | ■  |    |    |    |    |    |    |    |    |    |       |  |
| 12 |           |   |   |   |   |   |   |   |   |   |    |    | ■  |    |    |    |    |    |    |    |    |       |  |
| 13 |           |   |   |   |   |   |   |   |   |   |    |    |    | ■  |    |    |    |    |    |    |    |       |  |
| 14 |           |   |   |   |   |   |   |   |   |   |    |    |    |    | ■  |    |    |    |    |    |    |       |  |
| 15 |           |   |   |   |   |   |   |   |   |   |    |    |    |    |    | ■  |    |    |    |    |    |       |  |
| 16 |           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | ■  |    |    |    |    |       |  |
| 17 |           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ■  |    |    |    |       |  |
| 18 |           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | ■  |    |    |       |  |
| 19 |           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    | ■  |    |       |  |
| 20 |           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    | ■  |       |  |

## Simplified Swiss Pairing Rules

If you are interested in producing a clear winner, but you have, for example, thirty players and only six lunch hours in which to play, then the Swiss System is for you. In this simplified version of the Swiss System there are only two rules:

- 1) No players ever play each other twice.
- 2) Whenever possible, players with the same number of points play each other.

This means that you will have to keep track of the scores and opponents of each player on separate cards; these are named “pairing cards”. On it is the pairing number of the player, the pairing number of the player’s opponents, and his score versus each of them (see the next pages for samples of completed pairing cards and crosstables).

Below is a small tournament run using the Swiss System.

First each player is assigned a pairing number. The numbers are determined either arbitrarily or by rating. A rating is simply a number given to indicate how well that a player plays. The higher the number, the better the player. For example, the World Champion has a rating of about 2800. The average tournament player is about 1700. The best player in your school is probably about 1200.

Here is a list of the participants in the Drawville School Open, a four round Swiss System tournament played at the rate of one round per week over four consecutive Tuesdays. The number beside each player is that player’s pre-tournament rating.

|                 |      |
|-----------------|------|
| John King       | 1000 |
| James Draw      | 800  |
| Susan Knight    | 900  |
| Bill Check      | 750  |
| Samantha Bishop | 900  |
| Sally Queen     | 700  |
| Tom Rook        | 650  |
| Mary Mate       | 1200 |
| Al Pawn         | 500  |

The players are arranged (ranked) in rating order. Because Susan and Samantha have the same rating a coin toss or some other random means determined their pairing number. In this instance Susan won the toss. The players are now ranked in order. The number beside them is their pairing number.

1. Mary Mate

2. John King
3. Susan Knight
4. Samantha Bishop
5. James Draw
6. Bill Check
7. Sally Queen
8. Tom Rook
9. Al Pawn

Now split the group into two halves. If you have an odd number, the lowest rated person gets the bye (a free point for not playing). Next, have a coin toss to see which player gets white on the first board. In this case Mary won the toss, so she gets white. The number two player, John, gets black. The number three player, Susan, gets white. Each player would alternate from there. On a piece of paper you would write the following:

1. Mary Mate – James Draw
2. Bill Check - John King
3. Susan Knight – Sally Queen
4. Tom Rook - Samantha Bishop

Al Pawn (bye)

Let’s pretend that the following results happened:

1. Mary Mate beat James Draw
2. Bill Check lost to John King
3. Susan Knight drew (tied) Sally Queen
4. Tom Rook drew (tied) Samantha Bishop

Wins and byes are worth 1, draws are worth ½, and losses are 0. So the scores after round one are: Mary Mate, John King, and Al Pawn have 1.

Susan Knight, Samantha Bishop, Sally Queen, and Tom Rook have ½.

James Draw and Bill Check have 0.

The first thing you do is split the group of one pointers in half and pair them with each other. You would get this:

1. John King – Mary Mate  
The reason John King gets the white pieces and Mary Mate gets the black pieces is that this would equalize their colours at one white and one black each. Try to do this every time, if possible. Don’t get too worried about it, though. Notice that the best players in the tournament, as predicted by their pre-event ratings, are already playing each other.
2. Al Pawn – Susan Knight  
Al Pawn is the lowest-ranked player with one point. Since there is an odd number of players with one point, he gets to play the top-ranked player with ½.
3. Samantha Bishop – Sally Queen

Next, you split the remaining players with ½ into two halves and pair them. Here Samantha gets the white pieces because her pre-tournament ranking is higher, and in the case of two players who are trying to equalize, the higher-ranked one has priority.

#### 4. James Draw – Tom Rook

Again, since there is an odd number of players, Bill Check, as the lowest-ranked player with no points (and who hasn't already had the bye) now gets a bye.

Subsequent rounds are paired in the same manner. That's ALL there is to it! If you have a problem, just look at the sample pairing cards and crosstables on the next few pages.

**WARNING: In the simplified Swiss System, it is necessary for all of the players to be finished before you pair the next round.**

This system is ideal if you want to hold a tournament over, for example, six consecutive Tuesday lunches. You could do the pairings at home on Monday night, and have them posted on the wall that Tuesday. For those who finish their tournament game quickly, they could stay and play other quick finishers, just for fun.

# SAMPLE PAIRING CARD

## The Drawville Open Swiss

A pairing card sample from the Drawville Open appears below. Pairing cards are only necessary for Swiss System tournaments. It is inexpensive to buy these cards from the Chess Federation of Canada, or you could simply copy the template on the next page onto paper, or preferably, cardboard. Then fill in the information as you obtain it.

This is the player's rating. In Mary's case, she is rated 1200.

1

1200

Mary

---

Mate

This is the player's pairing number. Each player has a unique number in the tournament. Here Mary has pairing number 1.

These are the round numbers for the tournament. Looking down the column below the number will contain information about what happened in that round.

|  | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|---|---|---|
|  | W | B |   |   |   |   |
|  | 5 | 2 |   |   |   |   |
|  | 1 |   |   |   |   |   |
|  | 1 |   |   |   |   |   |

"W" or "B" refer to white or black for that player. In round 2, Mary is black against her opponent.

This number is the pairing number of the opponent. For example, in round 2, Mary plays against player number 2, John King.

This is the result ("1", "1/2", or "0") of the game from the perspective of the player whose name is on the card. In round 1, Mary won against player number 5, James Draw, with the white pieces. On James' card, a "0" would have appeared in this box.

The cumulative (or running) total of the player is found in the bottom box in the column. Mary won her first game, so her cumulative total after one round is 1. If, for example, Mary wins her next game, her cumulative total will be 2, and that number would appear in the box at the bottom of the column for round 2. Of course, if she loses, then the cumulative total will remain 1, and that number would be placed in the box.



# TOURNAMENT REPORT FORM



Tournament: **DRAVVILLE OPEN SWISS**

Start Date: **May 1, 1997**

Section: **CHAMPIONSHIP**

Finish Date: **May 29, 1997**

| # | FULL NAME       | Rating | Rd.1      | Rd.2     | Rd.3 | Rd.4 | Rd.5 | Rd.6 | Rd.7 | Rd.8 | Rd.9 | Rd.10 | Total |
|---|-----------------|--------|-----------|----------|------|------|------|------|------|------|------|-------|-------|
| 1 | Mary Mate       | 1200   | W 5<br>1  | B 2      |      |      |      |      |      |      |      |       |       |
| 2 | John King       | 1000   | B 6<br>1  | W 1      |      |      |      |      |      |      |      |       |       |
| 3 | Susan Knight    | 900    | W 7<br>.5 | B 9      |      |      |      |      |      |      |      |       |       |
| 4 | Samantha Bishop | 900    | B 8<br>.5 | W 7      |      |      |      |      |      |      |      |       |       |
| 5 | James Draw      | 800    | B 1<br>0  | W 8      |      |      |      |      |      |      |      |       |       |
| 6 | Bill Check      | 750    | W 2<br>0  | Bye<br>1 |      |      |      |      |      |      |      |       |       |
| 7 | Sally Queen     | 700    | B 3<br>.5 | B 4      |      |      |      |      |      |      |      |       |       |
| 8 | Tom Rook        | 650    | W 4<br>.5 | B 5      |      |      |      |      |      |      |      |       |       |
| 9 | Al Pawn         | 500    | Bye<br>1  | W 3      |      |      |      |      |      |      |      |       |       |
| 0 |                 |        |           |          |      |      |      |      |      |      |      |       |       |

This is the player's pairing number. Each player has a unique number in the tournament. Here Mary has pairing number 1.

This number shows the total points scored by the player. In this case, Mary Mate won in round one, so she gets one point.

The pairing number of the opponent played in the round in question is located at the top right hand corner of the box. Here, Samantha played against player number 8, Tom Rook, in round one.

Players' scores are cumulative. In this case, Bill Check lost in round one, then received a bye (for one point) in round two. He now has one point out of two rounds. If he were to win his next game, he would have "2" in the box for round three (0 + 1 + 1 = 2).

This is the colour that the player received for the round in question. Here Bill Check was White in round one, and thus a small "W" appears in the top left hand corner of the box.



# TOURNAMENT REPORT FORM



Tournament: \_\_\_\_\_ Start Date: \_\_\_\_\_

Section: \_\_\_\_\_ Finish Date: \_\_\_\_\_

| # | FULL NAME | Rating | Rd.1 | Rd.2 | Rd.3 | Rd.4 | Rd.5 | Rd.6 | Rd.7 | Rd.8 | Rd.9 | Rd.10 | Total |
|---|-----------|--------|------|------|------|------|------|------|------|------|------|-------|-------|
| 1 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 2 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 3 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 4 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 5 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 6 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 7 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 8 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 9 |           |        |      |      |      |      |      |      |      |      |      |       |       |
| 0 |           |        |      |      |      |      |      |      |      |      |      |       |       |

If there are more players please attach additional sheets.