# CHESS ENDINGS FOR HEROES 

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## INTRODUCTION

## ABOUT THIS BOOK

This is the fourth of a series of books written for children (or adults) who have mastered the basics of the game and would like to be able to take part in competitions.

It is not a book for young children to read on their own, though. Children need a lot of adult help to succeed at competitive chess. Giving them a book to learn from really won't help them at all. Chess is a complex game and information can easily be forgotten or taken out of context.

So who is this book for?

1. It's for parents working at home with their children who are looking for coaching resources and advice on how to help their children fulfil their potential.
2. It's for chess tutors working with individual students who can work through the text with them during lessons and give them puzzles to do at home.
3. It's for chess teachers working within centres of excellence who can use the book as a course to develop children's skills in this area.
4. It's for chess teachers working in school chess clubs who can use the simpler puzzles as worksheets or hand them out for children to complete once they've finished their tournament games.
5. It's for schoolteachers running school chess clubs who may have little knowledge of chess and are seeking guidance.
6. It's for teenagers who have learnt the basics at primary school, want to play competitively and have the ability and maturity to teach themselves.
7. It's for adults who might have played when they were younger and now want to start playing competitive chess.

Before starting this book you should know:

1. All the rules, including castling, pawn promotion and the en passant capture.
2. The values of the pieces, along with an understanding that superior force (usually) wins.
3. Knowledge of chess notation, which is outlined below.
4. A basic knowledge of chess tactics: understanding FORKS, PINS, DISCOVERED ATTACKS and other tactical devices along with the ability to think ahead.

The free CHESS FOR HEROES eBook is a good source of the basic knowledge you require. You should at least have started to read CHESS TACTICS FOR HEROES or another tactics book. CHECKMATES FOR HEROES, or another checkmate book, will also be useful.

A game of chess has three parts.

1. The OPENING: the start of the game when you decide where to put your pieces
2. The MIDDLE GAME: what happens once you've got your pieces out
3. The ENDING or ENDGAME: what happens at the end when there are only a few pieces left.

All games have an opening. Most games have a middle game. Some games have an ending.

You need to be good at all parts of the game.
You might think endings aren't so important because they don't happen very often in your games. If so, you'd be wrong. You can't really understand what's happening in the opening until you understand middle games. And you can't understand what's happening in middle games until you understand the endgame.

You always need to think about what will happen if you trade pieces off. One of the most common types of mistake at your level is to make a trade of equal pieces which turns a drawn position into a lost position, or a won position into a drawn position.

Join me now and find out everything you need to know about playing the endgame well.

Before we go any further, there are a few things you need to know.
You should know ALL the rules of chess, including en passant and castling. If you're not sure about these, go away and learn them now before you go any further.

You should also know the values of the pieces:
PAWN $=1$ point
KNIGHT $=3$ points
BISHOP $=3$ points
ROOK = 5 points
QUEEN = 9 points.
You should also understand that, at the end of the game, an advantage of two or more points will usually be enough to win the game, and an advantage of just one point will often be enough. In this book you'll find out when and how you can win with extra points.

So one of your most important jobs when you're playing chess is to win points if you can do so safely and, unless you have a very good reason, avoid playing moves that lose points,

## ACKNOWLEDGEMENTS

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Secondly, my thanks to all the parents and children who supported Richmond Junior Chess Club between 1975 and 2006. Thank you all for coming, and for believing in what we were doing. You were, and are, the inspiration behind the Chess Heroes books.

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## CHESS NOTATION

This book uses CHESS NOTATION. Each square has a name based on the letter of the FILE followed by the number of the RANK.


Here's how it works:

## 1. e 4 e 5

If we move a pawn we just write down the name of the square it moves to. White moves a pawn to the e 4 square and Black replies by moving a pawn to the e 5 square.

## 2. Nf3 Nc6

If we move a piece other than a pawn we start by writing the code letter for the piece using a capital letter. N for (k)Night, B for Bishop, R for Rook, Q for Queen or K for King. Both players move a knight on their second move.
3. d4 exd4

We use the letter 'x' to show a capture. If we make a pawn capture we start by writing the letter of the file where our pawn starts. Here, White moves a pawn to d4. Black captures this pawn with the pawn on e5.

## 4. Nxd4 Nf6

We write a capture by a piece (other than a pawn) with the code letter of the piece, the letter ' $x$ ' and the name of the square where the capture takes place.
5. Nc3 Bb4
6. Nxc6 Bxc3+

If we play a check we write '+' after the move. If it's checkmate we write '\#' after the move.
7. bxc3 bxc6
8. Bd3 o-o

If we castle on the king side we write ' $o$-o'. If we castle on the queen side we write ' $o$ -o-o'.


If more than one piece of the same type can move to the same square we have to say which one we're moving.

If White moves a rook to d1 we write either 'Radı' or 'Red1', using the letter of the file to show which rook is moving.

If White moves a knight to d2 we write either 'N1d2' or 'N3d2'. As the knights are on the same file we use the number of the rank instead.

If we promote a pawn we write the letter of the new piece after the name of the square: for instance, "e8Q".

## CHAPTER 1

## QUEEN AND ROOK CHECKMATES

This book is about ENDINGS in chess. The ending is when neither side has many pieces left: usually just kings and pawns, and one or two other pieces each.

Most endings are about PROMOTING pawns and getting some queens.
You'll learn much more about this later on.
But sometimes you won't have any pawns, just one or two pieces, and your opponent will just have a queen.

Will it be enough for you to get CHECKMATE or will the game only be a draw? This is something you need to know.

If you're left with just a bishop or a knight and a king against your opponent's king the game is drawn. There's no way you can get CHECKMATE and win the game. So if you reach this position you just stop play and shake hands.


This is as close as you can get with a bishop. The black king will always have one square.


Here's the same thing with a knight. It's just a draw.
We'll look at what happens with two minor pieces in a later chapter.
If you have king and queen against king, or king and rook against king, then you CAN get CHECKMATE. They're both quite easy if you know how.

These are the most important things you need to know about ENDINGS at the moment.

## THE KING AND QUEEN CHECKMATE

Positions with king and queen against king happen a lot in chess. Very often you'll get king and pawn against king and promote your pawn into a queen. Here's how you get CHECKMATE with king and queen against king.

Take a white queen and both kings.
Place them on a board so that the black king is in checkmate.
How many different checkmates can you find?
Do you think it will be easier to get checkmate if the enemy king is on the side or in the centre.


In each quarter of this diagram you'll see a different checkmate with king and queen against king.

Learn them. Remember them.
You'll see that there are two types of checkmate. The mates in the lower half of the diagram show the white queen next to the black king. The mates in the top half show the white queen checking along the side of the board, with the white king blocking the black king's escape.

Now do the same thing again, but this time you're trying to find stalemate positions, not checkmate positions.

Remember: if you're not in check and none of your pieces can make a move it's stalemate. The result of the game is a draw.


Here are two stalemate positions.
The position at the top is stalemate no matter where the white king stands. A queen a knight's move away from the corner will stalemate a king in that corner.

The position at the bottom would still be stalemate if the white king was on e3, c3, c2 or c1. The white queen controls all the squares around the black king except d2.

You need to know how to force checkmate while avoiding stalemate. There are several techniques for doing this. We'll look at two of them now.

It's good to know both methods. You might prefer one to the other. Sometimes one or the other will be easier depending on the positions of the pieces.

Let's start with this position.


Start with a very simple method. All you do is place your queen a knight's move away from the black king. Then keep on doing the same thing until he is stuck on the side of the board. Just make sure you don't stalemate him in the corner. Then approach with your king until you're close enough to get checkmate.

See how it works.

1. Qg4 Kd5
2. Qf4 Kc5
3. Qe4 Kd6
4. Qf5 Kc6
5. Qe5 Kd7
6. Qf6 Kc7
7. Qe6 Kb7
8. Qd6 Kc8


Now the black king is on the side of the board so you place your queen on the next row to stop him escaping, then bring your king up the board.

The idea of putting your queen on the next row as soon as the enemy king reaches the side of the board is really important. The one thing you have to remember is this: if your opponent's king moves into the corner don't put your queen a knight's move away. That would be STALEMATE.
9. Qe7 Kb8
10. Ke2 Kc8
11. Kd3 Kb8
12. Kd4 Kc8
13. Kc5 Kb8
14. Kc6 Ka8
15. Qb7\#

Get your chess set out and practise this method of getting checkmate with king and queen before you move on. Try it several times from different starting positions to make sure you really understand how it works.

When you've done that, you can learn a different method which is usually a bit quicker.


This time we're going to follow another plan. You might find it harder, but some people find it easier.

1. Place your queen one row away from the enemy king. Whenever he moves towards the side, again move your queen to the next row.
2. Place your king two rows away from the enemy king.
3. Force the king towards the edge of the board. Every time he moves towards the edge place your queen on the next row.
4. When the black king reaches the edge move your king towards him, keeping two rows away, until you can get checkmate. Remember to put your queen in place first to avoid stalemate.

Here's how it works.

1. Qg 4

Placing the queen one row away from the black king. White plans to checkmate on the back rank.
1... Kd5
2. Kd2

Moving the king up.
2... Ke5
3. Kd 3

Now the king's in place, two rows away from the black king.
3... Kd 5
4. Qf5+

White checks and forces the black king back.
4... Kd6
5. Kc4

Putting the king in place again.
5... Kc6
6. Qe6+

Another check to force the king back.
6... Kc7
7. Kc5

The king moves forward again.
7... Kd8

Black is setting a trap. What would you play next?

8. Qf7

White remembers to put the queen in place first. If you move the king up to b6, c6 or d6 it's stalemate. Notice that the queen is controlling all the squares round the black king except c7.
8... Kc8
9. Kc6

Now it's time for the king to move in. It will be checkmate next move.
9... Kb8
10. Qb7\#

Again, practise this method several times from different starting positions until you're confident you understand it - and know how to avoid the stalemate trap.

The quickest method is usually to use a combination of the two plans.
Here's how the computer does it.


1. Qd7

Placing the queen a knight's move away from the enemy king, and trying to force him towards the white king.
1... Kf6
2. Kf2

Now the white king approaches.
2... Ke5
3. Kf3

The white king approaches again.
3... Kf6
4. Kf4

The king moves into place, two rows away from the black king.
4... Kg6


## 5. Qe7

The queen moves a knight's move away from the black king, forcing him to the side.
5... Kh6
6. Kf5

The king moves into place. White's seen a checkmate next move.
6... Kh5
7. Qh7\# (or 7. Qg5\#)

Keep on practising this ending using different methods and different starting positions until you're really confident about it.

To see how good you really are at king and queen checkmates, here's a quiz for you.
In each case you have to force checkmate in two moves (you play, your opponent plays, and whatever move is played you get checkmate).


Q1. How can White force mate in 2 moves?


Q3. How can White force mate in 2 moves?


Q5. How can White force mate in 2 moves?


Q2. How can White force mate in 2 moves?


Q4. How can White force mate in 2 moves?


Q6. How can White force mate in 2 moves?


Q7. How can Black force mate in 2 moves?


Q9. How can Black force mate in 2 moves?


Q11. How can Black force mate in 2 moves?


Q8. How can Black force mate in 2 moves?


Q10. How can Black force mate in 2 moves?


Q12. How can Black force mate in 2 moves?

## THE KING AND ROOK CHECKMATE

You now know how to get checkmate with a king and queen.
The most common endings are rook endings, so you'll also find yourself quite often having to get checkmate with a king and a rook against an enemy king.

First of all, look at the checkmate positions.


Here's what a rook checkmate looks like. You've already seen a very similar checkmate with the queen.
At the top of the diagram the black king is on the side of the board and the white king is two squares away towards the centre. If the enemy king is in the corner your king can also be a knight's move away (but two rows away from your rook) as in the checkmate at the bottom of the diagram.


There are not so many stalemate positions to worry about. Stalemate will only happen if the enemy king is in the corner as in the diagram above.

You're going to look at two methods of getting checkmate.
The first method involves boxing the king in and gradually forcing him into the corner.

1. Set up a barrier with your rook
2. Move your king up the board
3. Use your king and rook together to form a box
4. If you can play a rook move to make the box smaller, then do so
5. If you can't make the box smaller move your king towards the enemy king instead
6. When the king's in the corner use your rook to get checkmate

Play through the moves on your board.


## 1. Ra4

White moves the rook to set up an electric fence and stop the king escaping.
1... Kd 5
2. Ke 2 Ke 5
3. Ke3 Kd5

4. $\operatorname{Re} 4$

White uses the rook to form a box. Now the king is trapped in the north west corner of the board. 4... Kc5
5. Rd4

Making the box smaller.
5... Kc6
6. Ke4

Now you can't make the box smaller so you moves your king up instead.
6... Kc5
7. Ke5 Kc6
8. Rd5


White keeps on repeating the same plan, gradually driving the black king into the corner. See how Black's king is now in a box of nine squares.
8... Kc7
9. Rd6 Kb7
10. Kd5 Kc7
11. Kc5 Kb7
12. Rc6 Ka7


Now the black king is on the side of the board so White makes sure he can't escape, then moves his king into place for the checkmate.
13. Rb6 Ka8
14. Kc6 Ka7
15. Kc7 Ka8
16. Ra6\#

Go away and practise this method yourself before moving on.

The second method is slightly different. The plan now is to force the king back to the side one row at a time.

It works in this way:

1. Set up a barrier with your rook
2. Move your king up the board to where it's a knight's move away from the enemy king
3. When the king moves opposite you play a check with your rook to force the king back
4. If he heads for the side instead it's quicker to go back to the first method and box him in
5. When he gets to the side of the board again move your king a knight's move away from him
6. If he moves away from your king play a waiting move with your rook
7. When the king's opposite you, use your rook to get checkmate

Again, play through the moves to make sure you understand the plan.


1. Ra 4 Kd 5
2. Ke2 Ke5
3. Kd3

This time we move the king a knight's move away from his opposite number.
3... $\mathrm{Kf}_{5}$

Black tries to run away.
4. Ke 3 Ke 5


Black wants to stay in the centre, but now the kings stand opposite each other a check will force him back.
5. Ra5+ Ke6

Now White does the same thing again. His king moves a knight's move away from the black king.
6. Kd4 Kf6
7. Ke4 Ke6
8. Ra6+

Another check to force the black king back towards the edge.
8... Kd7
9. Ke 5 Kc 7
10. Kd5 Kd7


This time a check will give Black no choice but to go to the edge of the board.
11. Ra7+ Kd8
12. Ke6 Kc8
13. Kd6 Kb8


Now White's quickest way to win is Ra7-c7 (try it out for yourself) but watch how White can also win by playing two WAITING MOVES.
14. Rh7 Kc8
15. Rg7 Kb8

Now the rook is safe the white king can approach.
16. Kc6 Ka8
17. Kb6

Black's king has reached the corner so he can't run away but has to move back opposite the white king.
17... Kb8
18. Rg8\#

Set up some different starting positions with king and rook against king and see how quickly you can get checkmate using these methods.


Now look at this position.
In the first checkmate example it was Black's move. The only move was Ka8, when White could play Ra6\#.

Suppose it's White's move instead. You can force checkmate in two moves (You play a move and, whatever Black does, you can get checkmate next move). Can you work out how? Stop and see if you can find out the answer before moving on.

You could try moving your king to c6 but after Ka8, Ra6 is no longer mate.
You could try moving your rook back along the b-file, for instance Rb1. Now if Black plays Ka8 you can get checkmate, but there's no mate if Black plays Ka6 instead.

So you have to play a rook move which forces the king to move to a8. There are six ways of doing this. Moving your rook to c6, d6, e6, f6, g6 or h6 will all work. Black will have to go into the corner and your rook bounces back to a6 with checkmate. Well done if you worked out the right answer!


Here's something similar. How can White force checkmate in two moves here? Again, try to work it out for yourself first.

You want to make sure the black king moves to d1, not to either f1 or f2, so the answer is Rf6. Now Black's only move is Kd1 when your rook can rush down to f1 saying "checkmate".


Using the same idea again, can you find the mate in 2 for White here?
Again, you want the kings to be facing each other, so this time you have to start with a king move. You play Kf3, when Black has to play Kh3, leaving the kings in the right position for you to play Rh5\#.

Now try to solve these positions in which you have to use the same idea to force checkmate in two moves.


Q13. How can White force mate in 2 moves?


Q15. How can White force mate in 2 moves?


Q17. How can White force mate in 2 moves?


Q14. How can White force mate in 2 moves?


Q16. How can White force mate in 2 moves?


Q18. How can White force mate in 2 moves?


Q19. How can Black force mate in 2 moves?


Q21. How can Black force mate in 2 moves?


Q23. How can Black force mate in 2 moves?


Q20. How can Black force mate in 2 moves?


Q22. How can Black force mate in 2 moves?


Q24. How can Black force mate in 2 moves?

## CHAPTER 2

## KING AND PAWN AGAINST KING

Now you're confident about the queen and rook checkmates we can move on.
If you have a position with king and pawn against king you'll need to be very good at getting your pawn to the end of the board.

If you have only a king and your opponent has king and pawn, you'll also need to be very good at stopping your opponent's pawn.

So now you need to know about how and when you can promote your last pawn. Some positions with king and pawn against king you can win by playing the best moves, but in other positions your opponent can stop your pawn by playing the best moves.

It's really important to be able to recognize whether a position is a win or a draw, and what the best moves are for you to get the win or the draw.


Let's start with this position.
Go away and look at it. Set it up on your board. Move the pieces around and see what happens. Can White promote the pawn safely or not? Does it matter whose move it is?

The answer is that if it's White's move it's a draw. Ke6 is STALEMATE and anything else will let Black capture the pawn. If it's Black's move, though, White wins. Black has to play Kf7. Then you play Kd7 and next move you'll promote your pawn safely.

It's time for you to learn an important - and very strange looking - word: ZUGZWANG.
This is a German word which is hard to get your tongue round: you say "TSOOGTSVANG". ZUG means 'move' and ZWANG means being forced to do something. In chess, if you're in ZUGWZWANG you're forced to play a move which makes your position worse. If it's Black's move here it's ZUGZWANG. If Black was allowed to pass the game would be a draw, but instead you have to make a losing move. You'll meet a lot of ZUGZWANG positions in this book.

Here's your next position. This time you're trying to stop the black pawn. It's your move. You have four choices. Which ones, if any, draw? Which ones, if any, lose?


Again, set the position up and try out each move for yourself before continuing.
This is the most important position in chess. Understand it and you're starting to understand what chess is all about. You'll be tested on it later so make sure you get it right.

If you play 1. Kf3 you lose because the black king will come round the side and shepherd the pawn home: 1... Kd3 2. Kg2 e2 3. Kf2 Kd2 and Black will promote next move.

If you play 1. Kf1 you also lose: $1 . . . \mathrm{Kd} 32 . \mathrm{Ke1} \mathrm{e2} \mathrm{and} \mathrm{we} \mathrm{reach} \mathrm{a} \mathrm{position} \mathrm{like} \mathrm{the} \mathrm{previous} \mathrm{diagram}$ with White to move. Play continues $3 . \mathrm{Kf} 2 \mathrm{Kd} 2$ and again Black will promote next move.

If you play 1. Kd1 you lose in the same way: $1 . . . \operatorname{Kd} 32$. Ke1 and we're back in the previous line.
But if you play 1. Ke1 you draw: 1... Kd3 2. Kd1 (Not 2. Kf1 Kd2) 2... e2+ 3. Ke1 and Black has the choice of STALEMATING White with Ke3 or losing the pawn.

In this sort of position you must always go back to the queening square to draw the game.

Here's your next position. Can White win or will it be a draw? Does it depend whose move it is? Try it out with White to move and with Black to move and see what happens.


This time it doesn't matter. White can win no matter whose move it is, but the two methods are different.

White moves first: 1. Kd6 Kd8 2. e6 Ke8 3. e7 and you'll remember that if it's Black's move in this position, White wins.

Black moves first: $1 \ldots \mathrm{Kd} 8 \mathbf{2 .} \mathrm{Kf} 7$ (White wins by going round the side and controlling the e7 and e8 squares) 2 ... Kd 73 . e6+ and the white pawn will go through.

So you can see it's important to get your king in front of the pawn if you want to win. Now try this position. White to move: what would you play?


As you're trying to get your pawn to the end it looks natural to push it, but this only draws:

1. e6 Kf8 2. e7+ Ke8 3. Ke6 is STALEMATE.

But White can win by moving in front of the pawn:

1. Ke6 Kf8 2. Kd7. White goes round the side to help the pawn get through.

Another position for you. This time we move everything back one rank from two diagrams ago. Try it with White to play and with Black to play and see what happens. Can White win or is it a draw?


This time it makes a difference. It's another position where if it's White's move it's only a draw, but if it's Black's move White can win.

With White to play:

1. Kd5 Kd7 2. Ke5 Ke7 and so on. Black just follows White all the time and White can make no progress. If White goes back behind the pawn Black will draw by going back to the queening square at the key moment.

With Black to play, White will be able to get round the side. For example:
1... Kf7 2. Kd6 Kf6 3. e5+ Kf7 4. Kd7 and White will get a new queen in three moves time.

Look closely at the position of the two kings. They are facing each other with one empty square between them.

We say that the player NOT having the move has THE OPPOSITION. If it's Black's move you have to give way and let White through.

Practise this position yourself until you're really confident you can win with White if it's Black's move and draw with Black if it's White's move. When you understand this position you can move on.

Here's your next challenge.
You're White and you have to win this position.


Try it out for yourself and see if you can work out how to do it before reading on.
Here's how play might go.

1. Kd2

You have to get your king in front of the pawn first. If you start by moving the pawn Black will be able to draw with best play, as you'll see in the next position.
1... Ke 7
2. Kd 3 Kd 7
3. Ke 4 Ke 6


This is the key position. White can seize the OPPOSITION by playing the SPARE MOVE.
4. e3

This is it! Now Black has to give way, allowing White to go round the side.
4... Kd6
5. $\mathrm{Kf}_{5} \mathrm{Ke}_{7}$
6. Ke5

Taking the OPPOSITION again.
6... Kf7
7. Kd6 Ke8

Now the black king has reached the back rank the white pawn can advance.
8. e4 Kd8
9. e5 Ke8

You've seen this position before. White must remember to move in front of the pawn. 10. e6 would only draw.
10. Ke6 Kf8
11. $\mathrm{Kd} 7 \mathrm{Kf}_{7}$
12. e6+

And the pawn will become a queen in two moves time.


Here's a question for you. What should you play for White if you want to draw this position? Go away and work out the answer for yourself before you read on.

This puzzle is all about the OPPOSITION.
If you play Ke 3 Black can win by playing Ke 5 (but Kd 5 would only be a draw).
If you play Kd 3 Black can win by playing Kd 5 (but Ke 5 would only be a draw).
You have to be prepared to play your king to d3 after Black's king moves to d5, and to e3 after Black's king moves to e5. So you have to stay in contact with both those squares.

The only move to draw is to play Kd 2 , so that you can take the OPPOSITION if the Black king advances. You'll play Kd 3 in reply to $\mathrm{Kd}_{5}$ and $\mathrm{Ke}_{3}$ in reply to Ke5. If Black plays Kc5 you can play either Ke 3 or Kc3.

Play it out for yourself. Make sure you're confident you can draw with White and win with Black if White makes a mistake.

If you have a pawn on the a or $h$ file instead, things are very different. Take this position.


With any other pawn except an h-pawn this would be a win for White with either player to move, but here it's just a draw.

If it's White's move play might go 1. Kb6 Kb8 2. a6 Ka8 3. a7 and it's stalemate.
Or if it's Black's move, $1 . .$. Kb8 and as White can't make progress by going round the side.
Sometimes the defending king is too far away to stop the pawn.
Look at this position.


It's White's move. If you play a4 Black won't be able to stop the pawn. But if instead you play a3 Black will get back in time.

After you've played your pawn move, imagine a square with the pawn at one corner and the queening square at another corner. If the black king can move into the square it will be a draw.

To test what you've learnt about king and pawn against king, here's another quiz for you to solve before moving on. Set the positions up on your board and move the pieces round to check your answer.


Q25. What is White's best move?


Q27. What is White's best move?


Q29. What is White's best move?


Q26. What is White's best move?


Q28. What is White's best move?


Q30. What is White's best move?


Q31. What is Black's best move?


Q33. What is Black's best move?


Q35. What is Black's best move?


Q32. What is Black's best move?


Q34. What is Black's best move?


Q36. What is Black's best move?


Q37. What is White's best move?


Q39. What is White's best move?


Q41. What is White's best move?


Q38. What is White's best move?


Q40. What is White's best move?


Q42. What is White's best move?


Q45. What is Black's best move?


Q47. What is Black's best move?


Q44. What is Black's best move?


Q46. What is Black's best move?


Q48. What is Black's best move?

## CHAPTER 3

## MORE ABOUT PAWN ENDINGS

## WINNING WITH AN EXTRA PAWN

The positions in the last chapter with king and pawn against king are the cornerstone of all endings.

Now you're going to learn how to win with an extra pawn.
Before we look at a position, there are two things you need to understand.
To get a pawn to the end of the board safely you first need to create a PASSED PAWN.
A PASSED PAWN is a pawn which could reach the end of the board without being blocked or captured by an enemy pawn.

Another very important thing you're going to do in all endings is USE YOUR KING. In the opening and the middle game you need to keep your king safe at home. But once most of the pieces have been traded off and you reach an ending the king probably won't be in danger of getting mated. So you can - and must - use your king as a fighting piece.

Remember: USE YOUR KING is the most important rule in all endings.
Here's a position for you to play out.


Try it out yourself before reading on. Take the white pieces and see if you can win.
Here's how the game might go.

1. Kd2

The first thing to do is to get your king to the centre from where it can easily get to either side of the board.
1... Kd7
2. Kd3 Kd6
3. Kd4 Kc6

Now the king is in the centre your next job is to get a PASSED PAWN. To do this you advance on the side of the board where you have more pawns. It's best to start with the pawn that doesn't have
an opposite number. If, for example, you start by playing a4 here, Black can make it harder for you by playing a5 in reply.
4. c4 a5


If you're playing an ending you always need a plan. In this position you have to decide how to create a PASSED PAWN. If you play a4 here, again it's going to make it harder to do this. You want to play a3 followed by b4, but if you play a3 at once Black can play a4. Now, if you play b4 Black will capture EN PASSANT (Don't forget the EN PASSANT rule!) and your split pawns will make it harder for you to get a PASSED PAWN. So the easiest plan is to play b3, followed by a3 and only then b 4 .
5. b3 b6
6. a3 h6
7. b4 axb4
8. axb4 Kd6


Now you have two pawns together so you can create a PASSED PAWN.
9. $\mathrm{c} 5+\mathrm{bxc} 5^{+}$
10. bxc5+ Kc6

Mission accomplished! But Black is blocking the pawn so how can you make progress? You need a new plan. The idea is to run Black out of pawn moves on the other side of the board and force the enemy king to retreat.
11. Kc4 g6
12. h4 f6
13. g 3 h 5
14. f 4 f 5


Next move the black king will have to retreat so White will be able to advance.
15. Kd4 Kc7
16. Kd 5 Kd 7
17. c6+ Kc7
18. Kc5 Kc8
19. Kd6 Kd8
20. c7+ Kc8


In this position White has two ways to win. The easy way is to play Ke6 and rush over to capture some pawns on the other side. If you choose the quicker path to victory you have to be very careful.
21. Kc6

This would be STALEMATE without the king-side pawns. Black has only one move.
21... 95
22. hxg5 h4

This is where you have to LOOK AHEAD. If you capture this pawn it will be STALEMATE. But if you work it out you'll see that you'll get to the end of the board in time.
23. g6 h3
24. g7 h2

White can choose between promoting to a queen or a rook.
25. g8R\#

Here are some positions for you to try out for yourself.
Take the side with more pawns, play the game out and see if you can win.
Remember your plan:

1. Advance your king up the board.
2. Create a PASSED PAWN if you haven't already got one.
3. Run your opponent out of pawn moves on the other side of the board.
4. Push your PASSED PAWN as far as you can.
5. If you can't work out a quick win (watch out for STALEMATE) send your king over to capture the enemy pawns on the other side of the board.
6. Get a queen or two and checkmate your opponent.










Winning with an extra pawn is usually a lot harder if all the pawns are on the same side of the board. You can't use the same plan of creating a passed pawn and then running over to capture the pawns on the other side because there aren't any pawns on the other side to capture.

First of all remind yourself about the basic king and pawn positions so that you know what you're aiming for.


1. White to play: draw Black to play: white wins

2. White to play: white wins Black to play: white wins

3. White to play: white wins Black to play: draw

4. White to play: white wins Black to play: draw

5. White to play: draw Black to play: draw

6. White to play: draw Black to play: white wins

7. White to play: draw Black to play: white wins

8. White to play: draw Black to play: draw

9. White to play: white wins Black to play: white wins

Note that in positions 5 to 9 above the result is the same if you move the position back down the board by one (or more, if you can) RANKS.

So you win by moving your king in front of the board, reaching a position where the enemy king is opposite you and it is YOUR OPPONENT'S move. Your opponent has to give way allowing you to move round the side, or to move forwards.

You have to UNDERSTAND these positions as well as REMEMBER them. So play each position through with both colours and make sure you really understand what is happening and why it is happening.

When you're happy that you understand these positions it's time to move on and play out this position.


It's White to move and win from this position. Play it out yourself a few times and see if you can win before reading on.

Here's how the play might go.

1. Ke2

As before, White starts by moving the king into the centre.
1... $\mathrm{Ke}_{7}$
2. Ke 3 Ke 6
3. Ke4 96
4. f4

Just as when there were pawns on both sides of the board, White leads with the pawn which doesn't have an opposite number.
4... h5


Now you have to be careful. You can win if you keep your pawns together but if you allow them to be split it's only a draw. 5 . h3 would be a mistake: Black would reply with h4 and capture $E N$ PASSANT when you played g4, after which you wouldn't be able to win. DON'T FORGET THE EN PASSANT RULE!
5. g3 Kf6
6. h3 Ke6
7. $\mathrm{g}_{4} \mathrm{hxg} 4$
8. hxg4 Kf6

In this position White will only draw if either pawn advances. 9. f5 gxf5 10. gxf5 is a draw as Black's king is behind the pawn. Or 9. g5+ Ke6 and Black has the OPPOSITION so White can make no progress. So White has to go round the side instead.
9. Kd 5


Take a look at three possible moves that Black can play in this position.

Variation 1
9... Kf7
10. $\mathrm{Ke}_{5} \mathrm{Ke}_{7}$
11. g 5 !

Taking the OPPOSITION. Now Black has to give way and White comes round the side again. But instead f4-f5 would only draw.
11... Kf7
12. Kd 6 Kg 7
13. Ke6 Kg8
14. Kf6 Kh7
15. Kf7

White will capture the black pawn next move.
Variation 2
9... Ke7
10. Ke5 Kf7
11. f5!

This time $\mathrm{g} 4-\mathrm{g} 5$ only draws because Black can take the OPPOSITION with Kf7-e7. But instead $\mathrm{f} 4-\mathrm{f} 5$ wins.
11... gxf5
12. Kxf5

White will only draw after g4xf5 because the king won't be able to get in front of the pawn.
12... Kg7
13. Kg 5

Now White takes the OPPOSITION, forcing Black to give way, when he can win by going round the side, for instance:
13... Kf7
14. Kh6 Kg8
15. 95 Kh8
16. g6 Kg8
17. $97 \mathrm{Kf}_{7}$
18. Kh7

Variation 3
9... 95
10. f 5

Capturing the pawn with fxg 5 will only lead to a draw.
10... Kf7
11. Ke 5 Kg 7
12. f6+ Kf7
13. Kf5

White will capture the black pawn next move.
It's not so easy, is it? You really need to think hard and look ahead to get this sort of position right.
Now we're going to look at some more ideas you can use to win PAWN ENDINGS.

## PAWN ENDING IDEA 1: THE OUTSIDE PASSED PAWN

Look at this position.


Both players have four pawns so you might think it looks like a draw.
But if you play it out you'll find that White wins easily. The game might continue like this:

1. $\mathrm{Kf}_{4} \mathrm{Kh} 5$

Or if Black plays 1... Kf6 you play 2. h5.
2. Kxf5 Kxh4
3. Ke6 Kg4
4. Kd6 Kf4
5. Kc6 Ke4
6. Kxb6 Kd4
7. Kxa5 and White will win easily.

So how did that happen?
The answer is that in the diagram above White has an OUTSIDE PASSED PAWN (OPP). The white PASSED PAWN on h 4 is further away from the pawns on the other side of the board than the black PASSED PAWN on f5.

White's plan is to trade the two king-side pawns. The white king will then be able to reach the other side of the board first and capture some black pawns. It's a race with both players heading in the same direction, but White will win the race easily.

## PAWN ENDING IDEA 2: THE TREBUCHET

A trebuchet is a machine like a very large catapult used for throwing rocks at your enemy. In chess it's something different.

Have a look at this:


This is a ZUGZWANG position. If it's White's move Black will win, and if it's Black's move White will win.

The player to move has to move away from defending the pawn, and then, as you should know from your work on king and pawn against king, the other player can win with best play.

Now let's change the position slightly.


Can you work out what's happening here?
This time the opposite is true. Whoever moves first can win.
Let's suppose it's White's move. In this sort of position you can attack a pawn from two squares but you can only defend a pawn from one square. White has to choose wisely.

If you play Ke5 you'll lose: Black will play Kc4 and you're back to the first diagram where it's your move.

But if you play Ke6 instead you'll win: now if Black plays Kc4 to defend the pawn you can play Ke5, and now you've reached the first diagram again, but this time it's Black's move so you win.


We've now changed the position again. What's happening this time?
This time it doesn't matter whose move it is: it's a draw with best play. If White plays Ke5 Black can play Kc4 and win. If White plays Kf5 Black can play Kc3 (not Kc4, which would lose) and win. So instead White plays $\mathrm{Kf}_{3}$. Black might reply with Kb 3 and the kings will just move up and down between $\mathrm{f}_{3}$ and f 4 , b3 and b4, leading to a DRAW BY REPETITION. After Kf3 Black might also play Kc3 or Kc4, but then you can draw even though you lose your pawn. 1. Ke3 is also a draw.

Here's what might happen:

1. $\mathrm{Kf}_{3} \mathrm{Kc} 3$
2. Ke2

But not Kf2, which loses because Black will gain the OPPOSITION
2... Kxd4
3. Kd2

Now White takes the OPPOSITION and Black cannot make progress.

## PAWN ENDING IDEA 3: THE SPARE MOVE AND THE OPPOSITION

This idea happens over and over again in pawn endings.
Start by looking at this position:


You'll see that the kings are in OPPOSITION - two squares apart.
If it's Black's move White can win. If Black plays Kd6 White plays Kf5 to capture the king-side pawns. Black can race across to the other side but White will win the race and promote first. Try it out for yourself and see what happens. Likewise, if Black plays Kf6, White plays Kd5 to capture the queen-side pawns. And if Black plays Ke7, White plays $\mathrm{Ke}_{5}$ to take the OPPOSITION again.

If it's White's move it's only a draw. White has to play Kd4 and Black has to take the OPPOSITION again by playing Kd6. White goes back to e4 and Black goes back to e6 with a DRAW BY REPETITION.

If the kings were on e3 and e5, though. White, to move, would lose, while Black, to move, would draw.

IMPORTANT LESSON - it's often good to have your king further up the board.

Now let's make a slight change to the position:


This time White wins no matter whose move it is.
Why? Because White has a SPARE MOVE. If it's White's move you can play 1. a3, taking the OPPOSITION and forcing Black to give way.

IMPORTANT LESSON - be very careful to play your pawns so that you have as many SPARE MOVES as possible and your opponent has as few SPARE MOVES as possible.


In this position it's White to play. If you play b4 you'll win by TAKING THE OPPOSITION. But if you play b3 you'll only draw as long as Black is careful. Play might go 1. b3 a5 2. b4 when Black has a choice. Now $2 \ldots$ a 4 will draw by TAKING THE OPPOSITION but $3 \ldots$ axb4 will lose because after 4. axb4 White will TAKE THE OPPOSITION.

If you've ever played CAPTURE THE FLAG with eight pawns each (also called PAWN WARS or TOUCHDOWN CHESS) you'll be used to having to make this sort of decision.

## PAWN ENDING IDEA 4: THE BREAKTHROUGH

It's usually true in pawn endings, even more than in any other positions, that you're more likely to win if you have more pieces than your opponent.

Sometimes, though, you can SACRIFICE a pawn or two to force a PROMOTION.
Here's a simple example.


White can win here by playing a PAWN SACRIFICE. 1. c5 bxc5 2. b6 and White will win the RACE and promote first. Black might try playing $1 . .$. Ke5 instead. We'll play this line out as it will give you the chance to learn another important idea.

1. c 5 Ke 5

Now White has to make an important choice: cxb6 or c6. Let's take a look. It seems natural to play the capture, when you'll have two extra pawns.
2. cxb6 Kd6
3. $\mathrm{Kg}_{4} \mathrm{Kd} 7$
4. Kf5 Kc8
5. Ke6 Kb7
6. Kd5 Kxb6
7. Kc4

And you already know that Black can draw this position with best play.
So let's try 2. c6 instead. Now White has a PROTECTED PASSED PAWN (PPP). PROTECTED PASSED PAWNS can be very useful in pawn endings because your opponent can never capture the supporting pawn without allowing promotion.
2. c6 Kd6
3. Kg 5 Kc 7
4. Kf6 Kd6


White can win this position by SACRIFICING his c-pawn to get ROUND THE SIDE and set up a TREBUCHET. It goes like this.
5. c7 Kxc7
6. Ke7 Kb7
7. Kd7 Ka7
8. Kc7

And you already know that White can win this position: you can attack the black pawn from two squares but Black can only defend it from one square.

Here's another example:


It looks like White's in trouble but in fact you can win by playing a SACRIFICE. You play 1. c6 and if $1 \ldots$ bxc6 then 2 . a6 and the pawn will promote.

Finally, there's this position:


Again it looks like White's in trouble, but this time you can SACRIFICE two pawns to promote the third pawn.

You start by playing:

1. g 6

Now if:
1... fxg6
2. h6 gxh6
3. f6 and you promote

Likewise:
1... hxg6
2. f6 gxf6
3. h6 and again you promote

## PAWN ENDING IDEA 5: UNDERSTANDING THE a- AND h-PAWNS

Rook's Pawns (a- and h-pawns) are very different from other pawns. They're much harder to promote because you can't get round the other side with your king.

You'll quite often see a position like this where one player is RACING to promote an a- or h-pawn.


With White to move, play might continue like this. White wants to get as far up the board as possible and make sure the black king is as far away from the f-pawn as possible before running over to win the a-pawn.

1. $\mathrm{Kf}_{4} \mathrm{Kf}_{7}$
2. $\mathrm{Ke}_{5} \mathrm{Ke}_{7}$
3. f6+ Kf7
4. Kf5 Kf8
5. Ke6 Ke8
6. Kd6

White makes a dash for the queen-side
6... Kf7
7. Kc6 Kxf6
8. Kb6 Ke6
9. Kxa 5 Kd 7

The only move to draw. In this sort of position White can win by getting the king to b7, while Black can draw by getting the king to c8. Kd6 would lose: White would play Kb6 followed by Kb7.
10. Kb6 Kc8 and Black just gets back in time to draw.

Now we'll make a slight change to the position. The a-pawns are one square further up the board.
Let's play the same moves again.


1. $\mathrm{Kf}_{4} \mathrm{Kf}_{7}$
2. $\mathrm{Ke}_{5} \mathrm{Ke}_{7}$
3. f6+ Kf7
4. Kf5 Kf8
5. Ke6 Ke8
6. Kd6 Kf7
7. Kc6 Kxf6
8. Kb6 Ke6
9. Kxa6 Kd7

Because you're one square further up the board you can now play
10. Kb7

And you'll get a new queen in three moves time.
These endings are not so easy to calculate. You have to see a long way ahead (in this case ten moves by each side) in order to work out whether the position is a win or a draw.

## PAWN ENDING IDEA 6: THE RACE

You've already seen some positions in which each king rushes to the other side of the board to capture an enemy pawn and then promote its own pawn.

You have to calculate these very accurately to see who promotes first.
If you promote and the enemy pawn then reaches the sixth rank you will almost always win.
If you promote and the enemy pawn then reaches the seventh rank it all depends. If you have queen against pawn on the seventh rank supported by its king you will usually win if the pawn is on the $\mathrm{b}, \mathrm{d}$, e or g file and draw if the pawn is on the $\mathrm{a}, \mathrm{c}, \mathrm{f}$ or h file. You'll learn much more about this in the next chapter.

If both players promote, again it all depends. You have to learn more about queen endings, which can be very hard.

After you've captured the enemy pawn you have to be very careful where you place your king. You'll probably need to make sure that your opponent can't check you and certainly need to make sure that your opponent can't SKEWER your king and queen.

Here's an example.


It's White's move. First of all you have a choice. You can make it a RACE by playing Kd5 or try to defend by playing Kd3. Black will win your h-pawn and then rush over to your b-pawn. Will you get back in time? As it happens, the answer is 'not quite' but you might like to play it out yourself to make sure.

The way to draw is to go for the immediate RACE.

1. $\mathrm{Kd}_{5} \mathrm{Kg}_{3}$
2. Kc6 Kxh3
3. Kxb6 Kg3

This is where you have to be careful. If you choose the wrong square for your king you'll lose. If you play Kb7 you're blocking your own pawn and losing a vital move.

The other bad move is Kc6, when Black will promote with CHECK.
Any of the other five king moves will draw because both players will promote their pawns.

Now it's time for you to solve some more puzzles.
You'll need to look ahead and calculate accurately in order to find the right answers.
The questions are multiple choice. You'll have two moves to choose from: look at each in turn and decide which of the two choices wins or draws. Circle the move you choose.

It will help you if you set up the positions on your board and try both the moves before reaching your decision.

Remember, it's not a guessing game. You have to work out the best move by looking ahead. The ideas you've just read about will help you with many of the questions.
(There may be other winning/drawing moves but only one of the three options will give you the result you want.)


Q49. Which of these moves wins for White?
a) g5 b) h3


Q51. Which of these moves wins for White?
a) h4 b) a4


Q53. Which of these moves wins for White?
a) b 5 b ) a 5


Q50. Which of these moves wins for White?
a) Kb5 b) Kb6


Q52. Which of these moves wins for White?
a) b4 b) Ke 3


Q54. Which of these moves wins for White?
a) Kf 5 b$) \mathrm{h} 5$


Q55. Which of these moves wins for Black?
a) e5 b) Ke5


Q57. Which of these moves wins for Black?
a) Kc5 b) g3


Q59. Which of these moves wins for Black?
a) h5 b) h6


Q56. Which of these moves wins for Black?
a) c3 b) Ke5


Q58. Which of these moves wins for Black?
a) b4 b) h5


Q60. Which of these moves wins for Black?
a) f2 b) Kf 4


Q61. Which of these moves gives White a draw?
a) Kc 3 b$) \mathrm{Ke} 2$


Q63. Which of these moves gives White a draw?
a) Kd 3 b$) \mathrm{Ke} 3$


Q65. Which of these moves gives White a draw?
a) Ke 5 b$) \mathrm{h} 5+$


Q62. Which of these moves gives White a draw?
a) Kh 3 b$) \mathrm{Kh} 4$


Q64. Which of these moves gives White a draw?
a) Ka 4 b$) \mathrm{Kb} 2$


Q66. Which of these moves gives White a draw?
a) Kc 4 b$) \mathrm{Ke} 4$


Q67. Which of these moves gives Black a draw?
a) Kb 4 b$) \mathrm{Kb} 3$


Q69. Which of these moves gives Black a draw?
a) Kb 3 b$) \mathrm{Kd} 3$


Q71. Which of these moves gives Black a draw?
a) Ke 7 b$) \mathrm{Kf} 7$


Q68. Which of these moves gives Black a draw?
a) Ke6 b) Ke5


Q70. Which of these moves gives Black a draw?
a) Kf 6 b$) \mathrm{Kf} 4$


Q72. Which of these moves gives Black a draw?
a) $\mathrm{d} 4+$ b) Ke 2


Q73. Which of these moves wins for White?
a) $\mathrm{Kxe5}$ b) Kxg 5


Q75. Which of these moves wins for White?
a) axb4+ b) bxc3


Q77. Which of these moves wins for White?
a) Kf 4 b$) \mathrm{Ke} 4$


Q74. Which of these moves wins for White?
a) Kf 3 b$) \mathrm{Kd} 3$


Q76. Which of these moves wins for White?
a) $a 5$ b) cxd6


Q78. Which of these moves wins for White?
a) a 4 b) Kc6


Q79. Which of these moves wins for Black?
a) a 4 b$) \mathrm{b} 4$


Q81. Which of these moves wins for Black?
a) $a 5$ b) $c 3$


Q83. Which of these moves wins for Black?
a) a 5 b$) \mathrm{h} 5$


Q80. Which of these moves wins for Black?
a) f4 b) g4


Q82. Which of these moves wins for Black?
a) c 5 b$) \mathrm{h} 4$


Q84. Which of these moves wins for Black?
a) a 6 c$) \mathrm{Kg} 5$


Q85. Which of these moves gives White a draw?
a) Ke 2 b$) \mathrm{Kf} 3$


Q87. Which of these moves gives White a draw?
a) Kf 3 c$) \mathrm{Kg} 1$


Q89. Which of these moves gives White a draw?
a) Ke 3 b$) \mathrm{Kf} 3$


Q86. Which of these moves gives White a draw?
a) Ke 3 b$) \mathrm{Kf} 2$


Q88. Which of these moves gives White a draw?
a) $g 3$ b) $h 3$


Q90. Which of these moves gives White a draw?
a) Kf 2 b$) \mathrm{Kg} 3$


Q91. Which of these moves gives Black a draw?
a) $a 4$ b) b6


Q93. Which of these moves gives Black a draw?
a) Ke6 b) f6


Q95. Which of these moves gives Black a draw?
a) Kg 6 b$) \mathrm{Kg} 7$


Q92. Which of these moves gives Black a draw?
a) $a 6$ b) c6


Q94. Which of these moves gives Black a draw?
a) b5 b) Kf7


Q96. Which of these moves gives Black a draw?

## CHAPTER 4

## QUEEN ENDINGS

## QUEEN AGAINST PAWN

If both players have a passed pawn you may well reach a position where you promote to a queen while your opponent's pawn reaches the seventh rank.

Can you win this sort of position? Let's take a look.


Let's start from this position, with White to move. This is how the plan works.

1. Bring your queen as near as possible to the pawn by a series of checks, PINS and attacks.
2. When the black king is in front of the pawn advance your king.
3. When the black king moves back out go back to stage 1 and start again.
4. When your king is close enough you can win the pawn and deliver checkmate.
5. Qf5+ Kg2
6. Qe4+ Kf2
7. Qf4+ Kg2
8. Qe3 Kf1
9. Qf3+ Ke1


End of Stage 1. Note the white queen's zigzag manoeuvre. Now the black king is in front of the pawn your king can approach.
6. Kc6 Kd2
7. Qf2 (PIN) Kd1
8. Qd4+ Kc2
9. Qe3 Kd1
10. Qd3+Ke1
11. $\mathrm{Kd}_{5} \mathrm{Kf} 2$


Now we repeat moves 7 to 11 again on the other side of the board.
12. Qd2 (PIN) Kf1
13. Qf4+ Kg2
14. Qe3 Kf1
15. Qf3+Ke1
16. Ke 4 Kd 2

Now the white pieces are close enough we can move in and force CHECKMATE.
17. Qd3+ Ke1
18. Kf3 Kf1
19. Qxe2+ Kg1
20. Qg2\#

It takes a long time to win this position but it's not too hard once you get the idea.

Next, we're going to move everything one square to the right so that you now have a bishop's pawn rather than a centre pawn.


This time play the position out for yourself before reading on and see what happens.

1. Qg5+ Kh2
2. Qf4+ Kg2
3. Qg4+ Kh2
4. Qf3 Kg1
5. Qg3+

So far it's the same as in the previous example but now something interesting happens. What do you think Black should play here? You only have two choices.


If Black moves to f1 the white king can approach, but look at what happens if Black goes to h1 instead.
Now if White takes the pawn it's STALEMATE. As Black is threatening to promote White has no way of making any progress. If you don't believe me try it out for yourself.

If you find yourself with a queen against a knight's pawn you can win the same way as against a centre pawn. But if your opponent has a rook's pawn again it's a draw because of STALEMATE.

But sometimes you can win against a bishop's pawn or a rook's pawn if your king is close enough by mating the enemy king when the pawn promotes.

Here's an example.


1. Qg5 +Kh 2
2. Qh5 +Kg 1
3. Qg4+ Kh2
4. Qg3+ Kh1
5. Qh3+ Kg1
6. Kg3 f1Q
7. Qh2\#

Black could promote to a knight on move 6 which would prevent an immediate mate but White would still win quickly.

Endings with a queen against a bishop's pawn can be tricky and require accurate calculation. Let's look at a few practical examples.


It's Black to move in this positon. You might want to play it out yourself first.
Black can draw by playing 1... Kb2 when White’s king is not quite near enough for a win.
But instead black played 1... Kb1, leaving the pawn pinned and giving White an extra move. Now White can win by advancing the king to the fourth rank. Can you work out the winning sequence?

It goes:
2. Kb 4 Ka 1
3. Qc3+Kb1
4. Kb3! c1Q
(Queen against queen is usually a draw, but not here!)
5. Qd3+Ka1
6. Qa6+ Kb1
7. Qa2\#

White didn't find this and after 2. Qb3+ Ka1! the king was one square too far away and the game was soon drawn.

Here's an example with a rook's pawn.


In this position the black king is within reach. But an immediate king move would be STALEMATE.
The quickest way to win is:
1... Qe7
2. Kb8 Kd6
3. a8Q Qc7\#

Again promoting to a knight would lose more slowly.


Finally, consider this position with White to play. The white queen has to contend against three black pawns, two of which are on the $7^{\text {th }}$ rank. You might want to play it out a few times first to see what happens. Can White win or should it be a draw, or even a win for Black. What do you think?

In fact White has several ways to win this position.
A trick well worth knowing is to get your queen onto the queening square, when you'll win easily. White can do this by playing 1. Qh6 followed by Qc1. Try this out for yourself.

Another way to win is to play 1. Qh3+. Now if Black plays 1... Kd2 you play 2. Qe3+ Kd1 3. Qe1\#. Or if 1... Kc4 you can, if you want to be clever, play 2. Kxg2 c1Q 3. Qc8+ with a SKEWER. Finally, if 1... Kd4 2. Qe3+ wins easily.

In the game White chose a different plan which was a lot harder to win with.

1. Qd8+Kc3
2. Qxf6+ Kd3
3. Qf3+ Kd2
4. Qe2+ Kc1

5. Kxg2?

This move only draws as Black has time to set up the stalemate defence. There's a win here for White but it's tricky to find. He has to get his queen on the b-file first to force the black king in the wrong direction.

Here's how it goes: 5. Qb5 Kd1 6. Qb3 Kc1 7. Kxg2 Kd2 8. Qb2 Kd1 9. Kf2 Kd2 10. Qd4+ Kc1 11. Qb4 Kd1 12. Qe1\#
5... Kb1
6. Qd3 Kc1

Now Black's losing again. He could draw either by playing Kb2 or by using the stalemate defence straight away with Ka1.
7. Kf2

Again it's not so easy for White to find the right plan here. As in the line above he should first put his queen on the b-file to prevent the stalemate defence before approaching with his king: 7. Qb3 Kd2 8. Qb2 Kd1 9. Kf2 c1Q 10. Qe2\#
7... Kb2
8. Qd2 Kb1
9. Qb4+ Kc1

The final mistake, giving White's king the move he needs to approach. He could have drawn by playing either Ka1 or Ka2.
10. Ke 3

White finds a mate in two. There was another one as well: 10. Kf1 Kd1 11. Qe1\#. But you have to be careful: Ke1 or Ke2 would have been STALEMATE.
10...Kd1
11. Qd2\#

## QUEEN AND PAWN ENDINGS

Queen and pawn endings happen quite often. Sometimes all the pieces except queens and pawns get traded off, leaving just queen and a few pawns each. Sometimes both players promote in a pawn ending.

Queen endings can be very hard to work out because there are so many checks. In most endings the kings, and should, venture up the board safely. In queen endings, though, there might be a surprise checkmate in the middle of the board if there are pawns about.

Look at this position.


It looks like White's losing here as Black has two connected passed pawns supported by both king and queen. Can you find the best move for White in this position?

White has a simple checkmate which I'm sure you found: Qd3\#. It's very easy to forget about checkmates when you're in the ending and miss opportunities like this.

If you're behind on pawns you can often save the game with a PERPETUAL CHECK. You keep on checking your opponent until you repeat the position three times and claim a draw.

Here's an example.


It doesn't look very good for White, does it. As you're five pawns down you might be tempted to give up. But in fact you can get a draw here and there's nothing Black can do to stop you.

You start off with 1. Qe8+ and Black has to play Kh7. Now you play 2. Qh5+ forcing Kg8. You just repeat moves: 3. Qe8+ and the game will be drawn. You're very happy with a draw, of course. Black certainly doesn't want a draw, but has no choice as long as White keeps on checking.

Another tactical idea that often happens in queen endings is the SKEWER. If you see the enemy king and queen on the same line you might be able to play a SKEWER: you check the king which has to move away, leaving you to capture the queen next move.


Here White obviously plays 1 . a8Q+. The black king has to move to the b-file when 2 . Qb8+ will SKEWER the black royal family.

PASSED PAWNS can be very important in queen endings.
If you have an advanced PASSED PAWN supported by your queen you may well be able to draw, or sometimes win the game even if you're a pawn or two behind.


In this position White can win by escaping the checks and attacking the black f-pawn.

1. b7 Qg3+
2. Qd6 Qc3+
3. Kd7 Qh3+
4. Ke8 Qe3+
5. Qe7 Qb3 (Qg3 lasts longer but will still lose)
6. Qe5+ f6
7. Qc7+ Kh6
8. b8Q

Finally, as in all endings, you must try to work out the king and pawn ending before you trade off the last pieces.

How would you get out of check in this position?


The correct move is to block the check by playing Qd3. This move forces the exchange of queens after which you'll be able to promote your pawn and get CHECKMATE with king and queen against king.

The ending of queen and pawn against queen doesn't happen very often and is far too hard for this book, but my computer tells me that if you move your king instead of playing Qd3 Black will be able to draw with best play.

One of the most common mistakes in the ending is to exchange off into a pawn ending at the wrong time. This is why you have to be very good at pawn endings before you can play other endings.

Now it's time for another quiz which will test your skill in queen endings.
In each question you'll be given two choices. Your job is to find the best move. It might be a winning move or a drawing move. You'll have to work out for yourself whether you're trying to win or draw the game.


Q97. Choose the best move for White
a) f4 b) Qh6+


Q99. Choose the best move for White
a) Qc8 b) g4


Q101. Choose the best move for White
a) Kg 4 b$) \mathrm{Kh} 2$


Q98. Choose the best move for White
a) Qd6 b) Qe4+


Q100. Choose the best move for White
a) Kg 4 b$) \mathrm{Kh} 2$


Q102. Choose the best move for White
a) $\mathrm{Qa} 8+\mathrm{b}) \mathrm{c} 5$


Q103. Choose the best move for Black
a) a 5 b$) \mathrm{Qe} 5$


Q105. Choose the best move for Black
a) Qb5 b) Qe1


Q107. Choose the best move for Black
a) $Q f 4+$ b) $Q x f 2$


Q104. Choose the best move for Black
a) Kf 3 b$) \mathrm{Kg} 3$


Q106. Choose the best move for Black
a) Qc7+ b) Qd3+


Q108. Choose the best move for Black
a) Qb5 b) Kd4

Finally we'll take a quick look at what happens when one player has just a queen and king while the other player has just a rook and king.

This is a win for the queen unless the player with the rook can win the queen or force stalemate. It's often not easy to play, though, and sometimes even very strong players are unable to find the win. You don't need to worry about it too much at the moment, but we'll just look at one quick example.


The idea is to separate the black king and rook and then win using a FORK of king and rook, or a move which THREATENS the rook and CHECKMATE at the same time.

Here's how the play might go, with Black to move:
1... Rb1
2. Qd8+ Ka7
3. Qd4+Kb8
4. Qh8+ Ka7
5. Qh7+

White plays a FORK to win the black rook.

## CHAPTER 5

## ROOK ENDINGS

Rook and pawn endings happen more often than any other type of ending. The reason is simple. If you've read CHESS OPENINGS FOR HEROES you'll know that rooks are usually the last pieces to come out. So they're more likely to be left at the end when the other big pieces have been traded off.

After pawn endings, rook endings are the most important endings for you to learn and understand.
If you want to become a grandmaster you'll have to learn how to play a lot of different positions.
At the moment, though, there are only a few positions which are worth learning.
It's more important to understand two things. Firstly, you'll need to know the basic principles of how to play rook endings. Secondly, it will be worthwhile learning the typical tactical ideas which happen in rook endings.

We'll start by looking at what happens when you have a rook against a pawn. Then we'll look at a few ideas in the important ending of rook and pawn against rook.

Then we'll give you some advice on where to put your pieces in endings with more pawns on the board. You'll be able to play out some positions for yourself and see how you get on.

Finally, we'll look at tactics in rook and pawn endings. At your level, most games, even in endings, are decided by tactical errors. Learn how to take advantage of your opponents' mistakes - and how not to make mistakes yourself.

When you're ready, turn over the page and read on.

## ROOK V PAWN

Positions with a rook against a pawn happen quite often.
If you have the rook and your king is near the enemy pawn it will usually be easy to win the pawn by attacking it with both your pieces.

Then you'll be able to get checkmate with king and rook against king. You've already learnt how to do this. If you've forgotten, or if you're not sure, turn back to the earlier chapter and go through it again.

If your king is a long way away the position may well be a draw. You'll have to give up your rook to stop the pawn queening, leaving a draw with just king against king.


Here's an idea that's worth remembering. White has only one way to win here.

1. Rc5

Cutting off the black king. White will now wait until the black pawn reaches g3, then bring the rook back to win the pawn before the black king can rush to its defence.
1... 94
2. Kc 7 g 3

If Black doesn't push the white king will gradually approach the pawn.
3. Rc3 g2
4. Rg 3

White will win the pawn and soon get checkmate.


In this position White has only one way to draw.
If you play the obvious move 1. f6 Black will reply with Kc4 and get back in time to win the pawn. Instead, you can draw by preventing the black king's approach:

1. Kf6 Kc4
2. Ke6 Kc5
3. f6

Now the black king can't approach the pawn so White will be able to draw.


If you have two pawns next to each other on the sixth rank and the kings are far away, the pawns will usually beat the rook.

In this position you can win by playing 1. $\mathrm{f6}$ - as long as you're good at playing positions with a queen against a rook! Play it out for yourself and see what happens.

## ROOK AND PAWN V ROOK

This is a very important ending. In general, although there are some exceptions, if your king can occupy or control the promotion square you'll get the result you want.

There are a few ideas it's well worth learning. Again, if you want to become a grandmaster you'll need to learn a lot more.


Set this position up on your board. This position (or any similar position) is known as the LUCENA POSITION. There are several ways to win but the method we're going to look at is sometimes called BUILDING A BRIDGE.

1. Rd2+

We start by driving the black king away.
1... Kc7

If Black tries 1... Ke6 instead we can use a SKEWER to win the black rook: 2. Ke8 Rxf7 3. Re2+ Kf6 4. Rf2+
2. Rd 4

Precisely this square. You'll see why in a few moves time.
2... Rf2
3. Ke 7

The white king emerges so that the pawn can promote. Black has to start checking.
3... Re2+
4. Kf6 Rf2+
5. Ke6 Re2+
6. Kf5 Rf2+

7. Rf4

Now you see why the rook went to d 4 on move 2.
White has used the king and rook to BUILD A BRIDGE. Now there's nothing Black can do to stop you promoting your pawn.


This is called the PHILIDOR POSITION. It might look hard at first. If you move the rook along the back rank Black can win by playing Kg3. Black has mate as well as promotion threats.

There's a very easy way to draw this sort of position, though. You just have to know how.
You start by playing:

1. Ra3

The idea of this move is to stop the black king reaching your third rank.
If Black plays $1 .$. Rb1+ you just play 2. Kf2. If Black plays a waiting move you do the same thing: move your rook to another square on your third rank.

As there's no other way of making progress, at some point Black will have to try pushing the pawn.
1... f3
2. Ra8

Now the rook has done his duty on a3. He has to move to the back of the board so that he can check the black king.
2... Kg3
3. Rg8+

White draws easily by continuing to check the black king. Black can only stop the checks by coming back down the board, after which White will just win the pawn.


Here's another important position you need to know. It's White to move.


You can draw easily here, but you have to be careful to avoid some tactical ideas.
If you move your rook off the a-file Black will be able to play $\mathrm{Rg} 1+$ followed by a1Q, with queen against rook, which, as you've seen, is a (difficult) win.

If you move your king up the board, for instance Kg 3 , Black will again play $\operatorname{Rg} 1+$ followed by a1Q. It looks safe to play Kf2, but in fact it's a losing move. Can you see the winning reply for Black? The answer is that Black plays Rh1. Now if you play Rxa2 Black will reply with a SKEWER: Rh2+.

The way to draw is to keep your king on either g2 or h2 (no other square will do) and move your rook up and down the a-file until White agrees a draw.

You always need to look out for SKEWERS in rook endings as well as in queen endings!
Now we're going to move on to rook endings with more pawns.

## ROOK ENDING IDEA 1: TRADING ROOKS

Pawn endings are usually easier to win than rook endings. So if you're a pawn up you'll usually want to trade rooks. If you're a pawn down you'll usually want to keep the rooks on the board. Of course you always have to calculate the pawn ending before you offer or accept a rook trade.

Look at this position:


If you're White in this position you might play:

1. Re4+

Now, do you think Black should play Re5?
The answer is definitely NO!
After the moves:
1... $\mathrm{Re}_{5}$
2. Rxe5+ Kxe5

White should win the pawn ending easily. You learnt how to win pawn endings like this in an earlier chapter.

But if Black plays 1... Kd6 instead it's going to be much harder for White to win. Black will have very good chances of getting a draw.

You have to move beyond just saying "rook for rook is an equal exchange". In this position it's anything but an equal exchange!

## ROOK ENDING IDEA 2: TRADING PAWNS

As with most endings, the more pawns you have the easier it will be to promote one of them and win the game.

As a general rule, if you're a pawn ahead you're more likely to win if there are pawns on both sides of the board than if there are pawns on only one side of the board.

So, if you're a pawn ahead try to keep as many pawns as you can, and try to keep pawns on both sides of the board. If you're a pawn behind, try to trade as many pawns as you can, and, if you can, try to trade off all the pawns on one side of the board.


It's White's move here. If you trade pawns Black will have very good chances of a draw. You could play 1. b5 but your best move is to PIN the pawn: 1. Rc1 c4 2. Rc3. Then your king can approach and capture the pawn on c4.

## ROOK ENDING IDEA 3: USING YOUR ROOK

As you probably already know, there's nothing rooks like more than OPEN FILES. This applies in the ending just as much as in the middle game.


In this position White can gain an advantage by playing Rd1, seizing the open d-file. Likewise, if it was Black's move, Rd8 would give Black the advantage.

What you then do is use your rook to attack an enemy pawn and force your opponent's rook into a defensive position. There's usually not much point in attacking a pawn which is defended by another pawn. Choose instead a pawn which can only be defended by a piece.

In this position, if you start:

1. Rd1 f6

Then you can play 2. Rd7.
Or if, instead, Black plays $1 . .$. c5 or $1 . .$. c6 you might play 2. Rd6.
An active rook (one which has lots of squares to move to, or is attacking an enemy pawn in this way) is often worth a pawn. If you're a pawn down but have a more active rook you'll usually have good drawing chances.

Another useful piece of advice is that ROOKS BELONG BEHIND PASSED PAWNS.


If you want to win this sort of position with White you're going to have to move your king over to the other side of the board and advance your pawn.

In the position on the left, as your pawn advances your rook will have more room and the black rook will have less room, so you will have more chances to win the game.

On the right, though, as your pawn advances your rook will have less room and your opponent's rook will have more room. Black will have more chances to draw the game.

## ROOK ENDING IDEA 4: USING YOUR KING

Just as in all endings, you should use your king as a fighting piece in rook endings. Kings can be very useful for winning enemy pawns and helping your own passed pawns to promote.

Let's look at the end of a game played by one of the greatest players of all time, José Raúl Capablanca, a Cuban who was world champion between 1921 and 1927.


Capablanca was White here, about to play his $35^{\text {th }}$ move. At the moment material is level, but he can't defend his pawn on c3, so he's about to go a pawn down. He has three advantages, though. Firstly, he has a PROTECTED PASSED PAWN on g5. Secondly, he has a very active rook which is keeping the black king out of play. Thirdly, he has an active king which is ready to advance up the board.
35. Kg3

White's king starts his journey up the board.
35... Rxc3+
36. Kh4 Rf3
37. 96

Giving up a second pawn to push his passed pawn.
37... Rxf4+
38. Kg5 Re4
39. Kf6


Threatening mate.
39... Kg8
40. Rg7+ Kh8
41. Rxc7

Regaining one of the lost pawns and threatening mate again.
41... Re8
42. Kxf5

Regaining the second pawn, with more to come. White's king and rook are both very active while the black pieces are totally inactive.
42... Re4
43. Kf6 Rf4+
44. Ke5 Rg4
45. ${ }^{\text {g7+ }}$


If Black captures this pawn White will exchange rooks and win the pawn ending easily by capturing on d 5 and promoting the d-pawn.
45... Kg8
46. Rxa7 Rg1
47. Kxd5

A few moves ago White was two pawns down: now he's two pawns up. Why? Because his pieces were much more active. The rest is easy.
47... Rc1
48. Kd6 Rc2
49. d5 Rc1
50. Rc7 Ra1
51. Kc6 Rxa4
52. d6

Black resigns. White will get a new queen in a few moves time.

There are three very important lessons from this game.

1. Use your king to attack enemy pawns and perhaps create mate threats.
2. Use your rook to attack enemy pawns and perhaps cut off the enemy king.
3. Passed pawns are important because they might become queens.

Now you have some work to do.
There are two ways for you to test your knowledge of how to play rook and pawn endings.
Firstly, there are some positions for you to play out against a friend or your teacher. In each case one player is a pawn ahead. Play the positions out from both sides. It would be a good idea to write down your moves so you can go through them again afterwards.

Can you win with an extra pawn? Can you draw if you're a pawn behind?
When you've played out some of these positions, there are some rook and pawn ending tactics puzzles for you to solve.

In some of the puzzles you have a free choice. Other puzzles will give you a choice of two possible answers. In some of the positions you're trying to find a winning move. In other positions you're trying to find a move that draws. I'm not going to tell you which is which, though. You're going to have to work that out for yourself!














Q109. Choose the best move for White


Q111. Choose the best move for White


Q113. Choose the best move for White



Q112. Choose the best move for White


Q114. Choose the best move for White


Q115. Choose the best move for Black


Q117. Choose the best move for Black


Q119. Choose the best move for Black


Q116. Choose the best move for Black


Q118. Choose the best move for Black


Q120. Choose the best move for Black


Q121. Choose the best move for White
a) Kd 1 b) f5


Q123. Choose the best move for White
a) $\operatorname{Ra} 5 \mathrm{~b}) \mathrm{Kf} 4$


Q125. Choose the best move for White
a) Kg 4 b$) \mathrm{Kg} 2$


Q122. Choose the best move for White
a) c 7 b ) d 6


Q124. Choose the best move for White
a) Rb6 b) Rxe4+


Q126. Choose the best move for White
a) $f 8 Q$ b) $g 7$


Q127. Choose the best move for Black
a) $R b 4+b) f 6$


Q129. Choose the best move for Black
a) Kc 5 b$) \mathrm{Kd} 6$


Q131. Choose the best move for Black
a) $\mathrm{Rb} 4+$ b) $\mathrm{Rf} 3+$


Q128. Choose the best move for Black
a) Rxb 5 b$) \mathrm{Ke5}$


Q130. Choose the best move for Black
a) Ra 2 b$) \mathrm{Kc} 4$


Q132. Choose the best move for Black
a) c 1 Q b) h5


Q133. Choose the best move for White
a) $\operatorname{Rd} 4$ b) $\operatorname{Rd} 5$


Q135. Choose the best move for White
a) Rb6 b) Rxh6


Q137. Choose the best move for White
a) Rf7+b) h7


Q134. Choose the best move for White
a) e7 b) Rh7


Q136. Choose the best move for White
a) b4 b) Rxg6


Q138. Choose the best move for White
a) $\operatorname{Re} 5 \mathrm{~b}) \mathrm{Rh} 2$


Q139. Choose the best move for Black
a) Kf 4 b$) \mathrm{Kg} 6$


Q141. Choose the best move for Black
a) Kb 5 b$) \mathrm{Kc} 5$


Q143. Choose the best move for Black
a) $\mathrm{Rxa5}$ b) $\mathrm{Kxa5}$

a) Ra 2 b$) \mathrm{Rh} 2+$


Q142. Choose the best move for Black
a) $d 3$ b) $R d 8$

a) $R x f 6+$ b) $h 2$

## CHAPTER 6

## MINOR PIECE ENDINGS

Endings with MINOR PIECES (bishops and knights) are much less common than rook endings, but they're still important.

Many of the principles are still the same, but with different pieces the tactical ideas will be different.

You're still trying to promote pawns. You're still going to create PASSED PAWNS. You're still going to make your king active. You're still going to find the best squares for your pieces.

The first thing you need to know is how many MINOR PIECES are required to get checkmate if there are now pawns on the board.

With just one MINOR PIECE there's no way to get CHECKMATE. If you reach a position with king and bishop against king or king and knight against king it's a draw. Likewise, if each player has one minor piece you should generally also agree a draw, although there are some possible checkmate positions against a king in the corner.

Although two MINOR PIECES are, for most of the game, more valuable than a rook, it's different in the ending.

You can always force CHECKMATE with two bishops against king, assuming they're on different coloured squares. (You might, although it's very unlikely, have two bishops on the same colour square if one of them is a promoted pawn.) It's a bit harder than the KING AND ROOK CHECKMATE, but easy enough with a bit of practice.

You can also force CHECKMATE with bishop and knight against king, although it's quite hard to do so. If you find it difficult to learn you don't need to worry too much about it at the moment. If you want to become a GRANDMASTER you'll need to be very good at it, though.

You can't force CHECKMATE with two knights against king, although you can sometimes win with two knights against a pawn.

None of these positions happen very often. You might play thousands of games without meeting any of them, so, for the moment, they're much less important than the QUEEN and ROOK CHECKMATES. You just have to remember to keep as many pawns on the board as possible. The more pawns you have, the easier it is to get a queen, making CHECKMATE easy.

## THE TWO BISHOPS CHECKMATE

To checkmate with TWO BISHOPS you have to force the enemy king into the corner one diagonal at a time. To force checkmate you'll need your king a knight's move away from the corner and you'll also have to be careful to avoid STALEMATE.

Play through this example and see how it works.


1. $\mathrm{Bd}_{3}$

We start by putting the bishops on the next diagonals to each other: b1-h7 and c1-h6. We need the king to help us so next we bring the king up the board.
1... Kd4
2. Kd 2 Kd 5
3. Kc 3 Ke 5
4. Kc4 Kd6
5. Bf4+ Kc6
6. Bf5


Again the bishops are on neighbouring diagonals. Look at the squares they control.
6... Kb6
7. Bd7

To control c6
7... Ka5
8. Kc5

Forcing the black king towards the corner
8... Ka6
9. $\mathrm{Bc} 7 \mathrm{~Kb}_{7}$
10. Bb6


Now the bishops are on the a4-e8 and a5-d8 diagonals. The bishop on d 7 also controls the c 8 square. If the black king goes to a6 Bc8 is checkmate so he has to move towards the corner.
10... Kb8
11. Kc6 Ka8
12. Bg 1

You have to be careful here. Kc7 would be STALEMATE. White retreats the bishop (c5, d4, e3 or f2 would have been just as good) to clear the b6 square for his king.
12... Kb8
13. Kb6 Ka8


You still have to be careful. Bh2 would be STALEMATE. White has to play a WAITING MOVE with one of the bishops to force Black to b8 first. There are several to choose from.
14. Bh3 Kb8
15. Bh2+ Ka8
16. Bg2\#

Even though it doesn't happen very often, it's still a good idea to practise this CHECKMATE yourself until you're really good at it. It will also teach you a lot about how bishops can work together.

## THE BISHOP AND KNIGHT CHECKMATE

If you thought the two bishop mate was hard, this is a lot harder. It's very rare, though, so you don't really need to know it yet. We'll just take a quick look.

To force checkmate you have to drive the enemy king into a corner square of the same colour as that of your bishop's squares.

In this example White has a white squared bishop so Black has run into a black corner square. Now we decide to force him to a8 one square at a time.

Here's how we might do it.


1. Nf7+ Kh7
2. $\mathrm{Be} 4+\mathrm{Kg} 8$
3. Bf5

A WAITING move. We're going to play Bh7 next move to control the g8 square.
3... Kf8
4. Bh7 Ke8
5. Ne5

Heading for d 7 to control the f 8 square.


Now Black has two choices. Black can play Kf8 (Plan A) to try to get back to h8 or make a bid for freedom with Kd8 (Plan B). Let's look at each plan in turn.
5... Kf8
6. Nd7+ Ke8
7. Ke6 Kd8
8. Kd6 Ke8
9. Bg6+

Controlling e8. Now the knight has to go to b7 to control d8.
9... Kd8
10. Nc5 Kc8
11. Bf7


Another WAITING MOVE.
11... Kd8
12. Nb7+ Kc8
13. Kc6 Kb8
14. Kb6 Kc8
15. Be6+

Controlling c8 and forcing Black towards the corner.
15... Kb8
16. Ne5 Ka8

17. Bd 7

Na6 would be STALEMATE so White plays another waiting move.
17... Kb8
18. Na6+ Ka8
19. Bc6\#

Look carefully at the routes taken by the white pieces.
The king moved along the $6^{\text {th }}$ rank: e6, d6, c6, b6.
The knight performed a zigzag between the $5^{\text {th }}$ and $7^{\text {th }}$ ranks, making the letter W : f7, e5, d7, c5, b7. The bishop zigzagged between the $6^{\text {th }}$ and $7^{\text {th }}$ ranks: $77, \mathrm{~g} 6, \mathrm{f} 7, \mathrm{e} 6, \mathrm{~d} 7, \mathrm{c} 6$.

Now we go back to this position and see what happens if the black king tries to escape from the back rank.

5... Kd8
6. Ke6 Kc7
7. Nd7 Kc6

It looks as if Black's escaping, but...
8. Bd3


Look carefully at this position. White's pieces form a net. The knight controls c 5 and b 6 while the bishop controls b5 so Black's king has to move back towards the corner.
8... Kc7
9. $\mathrm{Bb}_{5}$

You could also play Be4, forcing the black king to the back rank, when you would switch to Plan A.
9... Kd8
10. Nb6 Kc7
11. $\mathrm{Nd} 5+\mathrm{Kd} 8$
12. Kf7 Kc8
13. Ke 7 Kb 7
14. Kd 7 Kb 8

15. Ba6

The quickest way to win. The black king is now confined to the three corner squares.
15... Ka7
16. Bc8 Kb8
17. Nb4 Ka7
18. Kc7 Ka8
19. $\mathrm{Bb} 7+\mathrm{Ka} 7$
20. Nc6\#

## TWO KNIGHTS AGAINST KING

If you reach this situation you will only be able to win if your opponent makes a mistake so it's best to agree a draw. This is as close as you can get.


In this position if Black plays Ka8 White will play Nc7\# but after Kc8 White can make no progress.
You can sometimes win with king and two knights against king and pawn, though, because you can force the enemy king into the corner. There's no stalemate because he has a pawn he can move.


Here's an example. White wins like this:

1. $\mathrm{Kf}_{3} \mathrm{Kh} 2$
2. Ne3 Kh3

If 2... Kg1 White wins by playing 3. Kg3 Kh1 4. Nd2 b3 5. Nf3 b2 6. Ng4 b1Q 7. Nf2\# Or if 2... Kh1 then 3. Kg3 Kg1 4. Nd2 b3 5. Nf3+ Kh1 6. Ng4 b2 7. Nf2\#
3. Ng2 Kh2
4. Nf4 Kg1
5. Ke2 Kh1
6. Kf2 Kh2
7. Nd2 b3

Setting a trap. If White takes the pawn it's only a draw.
8. $\mathrm{Nf} 3+\mathrm{Kh} 1$
9. Ne 2

Without the pawn this would be STALEMATE.
9... b2
10. Ng3\#

There are even positions where you can win with king and knight against king and rook's pawn.


It's Black to play. The only move is $1 . . . \mathrm{h} 2$, when White plays $\mathrm{Ng} 3 \#$. With White to move, though, this position would only be a draw.

## WINNING WITH AN EXTRA PIECE

If you end up with just a king and pawn against a king you might be able to win. As you've seen it depends where the pieces are.

But if you end up with just a king and bishop or king and knight against a king the position is a draw. There's no way you can get checkmate.

So if you have an extra MINOR PIECE (bishop or knight) you're going to need to promote a pawn if you want to win.

If you've got more pawns than your opponent this is usually easy (although there's one important exception which you'll see later). If you've got a PASSED PAWN it's also usually easy. Otherwise, you'll have to win some enemy pawns first. How do you do this?

As in all endings you need a PLAN. It's no good just playing the first move you think of. You need to think ahead to work out where you want your pieces and how you're going to get them there.

Firstly, just like in all endings, your king has to be active. Always remember to use your king as a fighting piece in the ending.

Then you need to find a target. Your target will be an enemy pawn which is not defended by another pawn.

Sometimes you'll just be able to win the pawn because your opponent's king is too far away to defend it.

Sometimes you'll need to use a TEAM ATTACK. A TEAM ATTACK is where you attack a target with more than one piece. So you might attack a pawn with a king and a bishop. Because your opponent only has a king he won't be able to defend the target.

If that isn't possible you'll need to use your pieces to control the squares round the enemy king and force him to move away.

Sometimes you'll be able to SACRIFICE your piece for a couple of pawns to reach a winning king and pawn ending. But you always have to CALCULATE. Players very often panic and sacrifice pieces for passed pawns when they don't have to do so. If they'd stop and think they'd be able to work out that they could block and then win the pawn without a SACRIFICE.

You'll always need to make sure you don't run out of pawns.


Start by looking at this position. It looks at first as if Black can just sit there defending his pawn, but in fact it's very easy for White to win. Have a go yourself before reading on.

One way to win is to try to get your king round to attack the black pawn. See how it works.

1. Ke3 Ke6
2. Kd4 Kd6
3. Bc4 Ke7
4. Ke5 winning the pawn.

Or if Black tries Kf6 on move 2 the white king will go to d 5 and then e 5 .


Now have a go at winning this position. Again, try it yourself before reading on.
Here's how play might go:

1. Ke3 Ke6
2. Kd4 Kd6
3. Ba3+

White plays a check to force the black king away.
3... Ke6

4. Bb4

White plays a WAITING MOVE so that the king will be able to advance.
4... Kf6
5. $\mathrm{Kd}_{5} \mathrm{Kg} 7$
6. Ke5 Kg6
7. Bc5

White plays another WAITING MOVE. Black has to move away from the pawn and White will win easily.


Here, Black has an extra pawn, but it's still easy to win. First you must stop Black trading off your last pawn. Play it through yourself first before seeing how it's done.

1. $\mathrm{Bd} 4+$

Ke3 would be a bad mistake: Black would be able to play e6-e5 and exchange off your pawn.
1... $\mathrm{Kf}_{7}$
2. Ke 3 Ke 7
3. Be5

Making sure Black will never play e5. Your target is the pawn on e6. You have to travel round to the queen side in order to approach it.
3... Kf7
4. Kd4 Ke7
5. Kc5 Kd7
6. Kb6 Ke7
7. Kc7 Kf8
8. $\mathrm{Kd}_{7} \mathrm{Kf}_{7}$
9. Kd6

Now Black has to move away, leaving the pawn on f 6 to be captured.


This position, though, is a draw. White cannot prevent Black from playing e6-e5 next move.


If you start with the white king on e 3 instead of f 3 it's an easy win.

1. Kd4

The only winning move. If the black king retreats White plays Ke 5 followed by Bc4 winning the e6 pawn followed by the f5 pawn.
1... e5+
2. fxe5+ Ke6
3. Bh3

PINNING the black pawn. Black has to move back and let White capture the pawn.


You'd usually expect to win easily with a bishop and a pawn against a king but there's one exception.
If you have a bishop and a rook's pawn, and the bishop is on the opposite colour to the queening square it's only a draw if the defending king can reach the corner. Try it out for yourself and see what happens.


You can get as far as this but once you advance your pawn to the seventh rank the black king will be stalemated in the corner.

If you have a bishop on a black square, though, it's an easy win. In the above diagram you just play $\mathrm{h} 6-\mathrm{h} 7+$ and if the black king tries to hide in the corner the bishop will be able to deliver checkmate along the long diagonal.

On the next page you'll find some positions to play through. Take the side with the extra bishop and see if you can win.






Now let's look at some knight endings.


You win this in very much the same way as with a bishop. You move the knight to attack the black pawn, then bring the king round the side to reach ZUGZWANG and force the black king away.

Try it out for yourself and make sure you know how to do it.


This is still a draw: Black's next move will be e5 to trade off the white pawn.


This position is winning: White must play Nd3 first to prevent e5. Then you can move your king round to e5 and then play Nc5, winning the pawn on e6. Again, try it out for yourself and make sure you're confident about winning this position.


There are a few problems with rooks' pawns. This sort of position is worth knowing. It's White to move: how would you continue?

Firstly, 1. Kg6 is STALEMATE. Secondly, 1. h7 is a draw: the black king will just move between g 7 and h8 and there's no way for you to make progress.

Here's how you might win:

1. $\mathrm{Ne}_{4} \mathrm{Kh} 7$
2. Nd6 Kg8
3. Kg6 Kh8
4. Nf7+ Kg8
5. h7+ and you promote next move

Or, if Black chooses a different defence on the first move:

1. Ne 4 Kg 8
2. Kg6 Kh8
3. Ng 5 Kg 8
4. h7+ Kh8
5. Nf7\#

Here are some positions for you to play out. In each case you have the advantage of a knight but your opponent has one more pawn. Can you win them against your chess teacher?






## BISHOPS OF OPPOSITE COLOURS

There are some important things you need to know about positions where each player has a bishop operating on a different coloured square.

Endings with BISHOPS OF OPPOSITE COLOURS are much more likely to be drawn than other endings. It's very often not possible to win if you're a pawn up, and sometimes the position will be drawn even if you're two pawns ahead.

Look at this position:


White has two CONNECTED PASSED PAWNS, but the position drawn. Black just moves the bishop between h3 and e6. This sort of position is a BLOCKADE. Although White has what would usually be enough extra material to win, there's no way to make progress.

But if we change the position slightly:


Now it's easy for White to win. Try it out for yourself.
As a general rule, you need to have play on BOTH SIDES OF THE BOARD to win a BISHOPS OF OPPOSITE COLOURS ENDING. There are many exceptions, though, as always with this sort of general rule.

Usually, if you're behind on pawns in the MIDDLE GAME you're trying to keep pieces on the board while trading pawns. But if there's a chance of reaching a BISHOPS OF OPPOSITE COLOURS ending you should sometimes do the opposite.

So, if you're behind on pawns in the MIDDLE GAME you should, if possible, try to trade pieces so that you reach a BISHOPS OF OPPOSITE COLOURS ENDING. Likewise, if you're a pawn or two ahead you should usually try to avoid this sort of ending.

Finally, in this section, here's a move which some experts consider the best move ever played in any game of chess. It comes from a game played in 1998 between two GRANDMASTERS, Veselin Topalov of Bulgaria was White and Alexei Shirov, originally from Latvia, was Black.

How did Shirov win from this position?


Black is two pawns ahead but the white bishop on the long diagonal stops them advancing. There's only one solution: to SACRIFICE the bishop to gain time and make room for the king.

So Shirov found the winning move:
1... Bh3

If White takes, which he did, Black will have three passed pawns and a path for his king.
The game finished:
2. gxh3 Kf5
3. Kf2 Ke4
4. Bxf6 d4
5. Вe7 Kd3
6. Bc5 Kc4
7. $\mathrm{Be}_{7} \mathrm{~Kb} 3$

White resigned: he can't stop both the pawns. The game might continue: 8. Bc5 d3 9. Ke3 Kc2 10. Bb4 a3 and one of the pawns will promote.

## BISHOPS AND KNIGHTS

A few general rules (as always there are many exceptions about BISHOPS and KNIGHTS in the ending.

1. Bishops are better than knights in open positions.


In this position, Black (to move) has better chances and, in fact, won the game. It wasn't easy, but White could have defended better and made a draw. In an open position like this bishops can get across the board much more quickly than knights.
2. Knights are better than bishops in closed positions, or where the bishop is stuck behind pawns (a BAD BISHOP).


In this position, Black, Bobby Fischer (to move) has better chances and, in fact, won the game. Again, White could have drawn with better defence, but it wasn't easy. In this sort of position White's bishop is not a good piece and will always be tied down to defending the d-pawn. If the bishop was on, say, c2 instead of c1, White would have had no problems.


In this position White's bishop is useless. Black's knight is very powerful and has lots of OUTPOSTS to choose from, in particular e 4 which attacks two pawns. With best play Black can win this position. You might like to try it out for yourself.
3. In fairly open positions TWO BISHOPS are often much better than a bishop and knight or two knights.


Here, Black has a winning advantage with two strong bishops. White has a BAD BISHOP on c2 stuck defending the pawn on d3, and a knight on the side of the board. Black also has an active king.

Now it's time to find out how good you are at winning MINOR PIECE ENDINGS. Set these positions up on your board, take the side with the extra pawn, and play them out against your chess teacher. Or, if you prefer, play them against a friend, taking it in turns to play with the pawn advantage.













For the last time in this book, there are some more puzzles for you to solve, this time on MINOR PIECE ENDINGS.

There will be some puzzles where you have a free choice - but there is only one move to win or draw (you have to work out which).

Then there will be some puzzles where you have a choice of two moves. In some cases, one move wins while the other either draws or loses. In other positions one move draws while the other loses. Again I'm not going to tell you which is which.

A few hints:

1. Calculate all FORCING MOVES: CHECKS, CAPTURES and THREATS
2. If you want to trade pieces, or play a move which lets your opponent trade pieces, you'll have to calculate the PAWN ENDING accurately first.
3. Don't sacrifice a piece for a PASSED PAWN unless you really need to - don't panic!
4. Look out for KNIGHT FORKS - they happen in endings as well as openings and middle games.
5. Look out for PINS and SKEWERS using bishops - again they can happen in the ending.
6. Look out for TRAPPING PIECES - knights and bishops are not always very mobile and can sometimes get TRAPPED even in the ending.

If you can't see the answer quickly, set the position up on your board. Ideally, solve without moving the pieces, but if you get stuck, you might need to do so.

Good luck. When you're ready, turn over the page.


Q145. Choose the best move for White


Q147. Choose the best move for White


Q149. Choose the best move for White


Q146. Choose the best move for White


Q148. Choose the best move for White


Q150. Choose the best move for White


Q151. Choose the best move for Black


Q153. Choose the best move for Black


Q155. Choose the best move for Black


Q152. Choose the best move for Black


Q154. Choose the best move for Black


Q156. Choose the best move for Black


Q157. Choose the best move for White
a) $\mathrm{Bxa5}$ b) Bd 6


Q159. Choose the best move for White
a) Kf 3 b$) \mathrm{Nh} 4$


Q161. Choose the best move for White
a) Bc 1 b) f 4


Q158. Choose the best move for White
a) $\mathrm{a6}$ b) Kc 7


Q160. Choose the best move for White
a) b6 b) Kf2


Q162. Choose the best move for White
a) $g 4 \mathrm{~b}) \mathrm{h} 4$


Q163. Choose the best move for Black
a) $a 2$ b) b3


Q165. Choose the best move for Black
a) $a 3$ b) g6


Q167. Choose the best move for Black
a) b5 b) Bc6


Q164. Choose the best move for Black
a) Kf 5 b$) \mathrm{Kxf} 3$


Q166. Choose the best move for Black
a) Ng 4 b) h4


Q168. Choose the best move for Black
a) Nd 5 b) Ne 6

## FINAL WORDS

You've now learnt quite a lot about the ending, but there's still a lot more to learn if you want to be a really good player.

Some people (maybe not you) think endings are not so interesting, and, compared to playing brilliant sacrifices, sometimes they are, but they're still very important. Studying the ending is just as important as studying openings and middle games.

As you get stronger you'll find that you're making fewer tactical errors, and, as you're playing stronger opponents your opponents will also be less likely to make tactical errors. So a lot more of your games will be decided in the ending.

At the moment, the most important thing is to get really good at pawn endings. Moving onto the next level, though, rook endings become more important. There's a lot more to learn about them that what you've read in this book.

If you want to reach master standard you'll need to learn a lot about really difficult endings like queen and pawn against queen, and rook and bishop against rook. You'll also have to be fluent at endings you've learnt a bit about here such as the bishop and knight mate, and queen against rook.

You'll also have the chance to practise your ending skills, along with your opening and middle game skills in CHESS PUZZLES FOR HEROES and CHESS GAMES FOR HEROES.

Meanwhile, whenever you play a game that reaches an ending, don't forget to run it through an engine and analyse it with a stronger player.

## ANSWERS TO QUIZ QUESTIONS

Q1. Kc4
Q2. $\mathrm{Kf}_{4}$
Q3. Kc6
Q4. Qg3
Q5. Kf3
Q6. Kc7
Q7. Kc6
Q8. Kd6
Q9. Kb6
Q10. Kd3
Q11. Kc6
Q12. Qg2

Q13. Rf3
Q14. Rd1
Q15. Kd6
Q16. Rxf6
Q17. Rc4
Q18. e5
Q19. Rxc3
Q20. Rf5
Q21. Kf2
Q22. Re7
Q23. Kf3
Q24.c1R

Q25. Kf7
Q26. Kg6
Q27. Ka4
Q28. Ke5
Q29. Kh4
Q30. Kg3
Q31. Kf3
Q32. Kg3
Q33. Kg5
Q34. Kh4
Q35. Kh5
Q36. Kb5
Q37. Kc3
Q38. Kg3
Q39. Ke2
Q40. Kc4
Q41. Kg1
Q42. Kf2

Q43. Kh7
Q44. Kf8
Q45. Kf7
Q46. Kf8
Q47. Ke7
Q48. Kg5

Q49. a) g5 (running Black out of WAITING MOVES will lead to ZUGZWANG: after h3, g5 draws)
Q50. a) Kb5 (Kb6 will lead to STALEMATE)
Q51. b) a4 (to stop Black getting a PASSED PAWN)
Q52. a) b4 (a SACRIFICE to get an unstoppable PASSED PAWN)
Q53. b) a5 (it's ZUGZWANG. b5 would lose: Black would get to the other side first)
Q54. a) Kf5 (if you play h5 first Black will have time to get back and draw with best play)
Q55. b) Ke5 (taking the OPPOSITION: after e5 White can draw by playing Ke2)
Q56. b) Ke 5 (otherwise the white h-pawn will promote)
Q57. b) g3 (a SACRIFICE to promote a pawn)
Q58. a) b4 (after cxb4, Kxd4 gives Black the OPPOSITION: after h5 White captures EN PASSANT)
Q59. a) h5 (Black will eventually win the White pawns: h6 loses: White plays h5 and will promote)
Q60. b) Kf4 (Black will win the h-pawn: f2 is only a draw: there's a potential STALEMATE)
Q61. a) Kc3 (Black can't get round the side: Ke2 loses to Kc4 with the OPPOSITION)
Q62. a) Kh3 (Kh4 loses to Kg6 with a TREBUCHET)
Q63. b) Ke3 ( Kd 3 loses to Kd 5 with the OPPOSITION)
Q64. a) Ka4 (If Black plays Kc4 it's STALEMATE)
Q65. a) Ke5 (If White plays h5+, Black can win by replying Kf6)
Q66. b) Ke 4 (You have to see 1. Kc4 $\mathrm{Kh} 42 . \mathrm{Kb} 5 \mathrm{~g} 5$ and Black promotes first)
Q67. a) Kb4 (After Kb3 White will promote with check and win)
Q68. a) Ke6 (Black has to get back to c8 to prevent Kb7)
Q69. b) Kd3 (Black has to get round the side to stop the pawn)
Q70. a) Kf6 (Black has to stop White's PASSED PAWN)
Q71. b) Kf 7 (Black has to take the OPPOSITION when White plays Kxe5)
Q72. b) Ke2 (After d4+ White wins with Kc4: another TREBUCHET)
Q73. a) Kxe5 (Black won't be able to stop the e-pawn promoting)
Q74. b) Kd3 (If Black plays Kf4, then Kd4 wins)
Q75. a) axb4+ (It's CHECK so Black has to take back. After the pawn exchanges g 4 wins for White)
Q76. a) a5 (White will continue with b5, SACRIFICING two pawns to promote)
Q77. b) Ke 4 (White wins by taking the OPPOSITION)
Q78. b) Kc6 (White will meet a6 with a4 and a5 with a3 to avoid STALEMATE)
Q79. b) b4 (Black will eventually win White's last pawn with a sort of TREBUCHET)
Q80. a) f 4 (Black wants to create a PASSED PAWN by trading off the pawn on e3)
Q81. b) c3 (a pawn BREAKTHROUGH: one of the black pawns will promote)
Q82. b) h4 (Black wants to shift the g3 pawn and play Kf4)
Q83. b) h 5 (White will run out of pawn moves first: but a 5 will lose to h 5 )
Q84. a) a6 (Black wins an important tempo before racing across to the other side)

Q85. a) Ke2 (White has to arrange to play $\mathrm{Kf}_{3}$ whenever Black plays Kd 3 )
Q86. b) Kf2 (White has to be able to meet Ke 5 with Ke 3 : the OPPOSITION again)
Q87. a) $\mathrm{Kf}_{3}$ ( Kg 1 loses to f 3 , after which any king move will allow promotion)
Q88. b) h3 (g3 is met by g 4 , when h 4 loses to an EN PASSANT capture)
Q89. a) Ke 3 (White has to be able to take the OPPOSITION after Kxf5)
Q90. a) Kf2 (Kg3 loses to Ke5 when Black has the OPPOSITION)
Q91. a) a4 (Using the EN PASSANT rule to run White out of spare moves)
Q92. a) a6 (After c6 and the pawn trades, White will win the race)
Q93. b) f6 (Black has to keep the white king out of g5)
Q94. a) b5 (Black has to stop White getting a PASSED PAWN)
Q95. b) Kg 7 (Kg6 loses to Kh4: a TREBUCHET again)
Q96. b) Ke 7 (After Kc 7 White can win by playing Kd 4 and heading for the black h-pawn)

Q97. b) Qh6+ (Forcing a queen trade leaving the black king too far away)
Q98. b) Qe4+ (Again trading queens to win the pawn ending)
Q99. a) Qc8 (Avoiding the queen trade: g4 would allow Qd5+)
Q100. b) Kh2 (Kg4 loses at once after f5+)
Q101. b) Kh2 (This time Kg4 allows a SKEWER: Qh4+)
Q102. a) Qa8+ (After c5 Black would have a PERPETUAL CHECK starting Qe1+)
Q103. b) Qe5 (White was threatening Qh4\#)
Q104. b) Kg 3 ( Kf 3 would lose the queen to a SKEWER: Qh3+)
Q105. b) Qe1 (This wins as White can't defend f2: White would win the pawn ending after Qb5+)
Q106. a) Qc7+ (Qd3+ would be met by Qf3+ and White will promote)
Q107. a) Qf4+ (Black will draw using a PERPETUAL CHECK)
Q108. b) Kd4 (After Qb5 White will win the pawn ending)

Q109. Rf8 (After Rxa7, Rxf7+ is a SKEWER)
Q110. e7 (Threatening Rd8\# as well as e8Q)
Q111. Rc5+ (DEFLECTING the rook to allow promotion)
Q112. Rxf3+ (Kxf3 is STALEMATE, and if the king moves then Rxh3 with the same idea)
Q113. Rd7+ (Returning the extra pawn to reach a winning pawn ending)
Q114. Rxg6+ (White is winning the pawn ending after 1... Rxg6 2. hxg6 Ke6 3. fxe5)
Q115. Rh6+ (Black is winning the pawn ending after the rook trade)
Q116. g3+ (A DISCOVERED CHECK which is also a SKEWER)
Q117. Rb4 (A PIN and a DEFLECTION to ensure promotion)
Q118. d2 (Meeting Rh1 with Re1 and the pawn will go through: Re1 also wins, but more slowly)
Q119. Kg3 (White can't prevent Rc1\#)
Q120. Rxf6+ (gxf6 in reply is STALEMATE)
Q121. a) Kd1 (After f5 Black can TRAP the rook: Kd6)
Q122. b) d6 (Black can't prevent Rg8\#: c7 loses after Ra6+)
Q123. a) Ra5 (Kf4 loses: 1... Rh4+ 2. $\mathrm{Rg}_{4} \mathrm{Rxg} 4+3 . \mathrm{Kxg} 4 \mathrm{Kxg} 6$ and Black is winning)
Q124. a) Rb6 (Black would be winning the pawn ending after a rook trade)
Q125. b) Kg 2 ( $\mathrm{Kg}_{4}$ allows mate in $1: \mathrm{h} 5 \#$ )
Q126. a) f8Q+ (Trading rooks with Rf7+ next move: g7 would allow a PERPETUAL CHECK)

Q127. a) Rb4+ (f6 would lose the rook after 2. $\mathrm{Rf}_{5}+\mathrm{Kd} 4$ 3. Rf4+: DEFLECTION and SKEWER)
Q128. b) $\mathrm{Ke}_{5}$ (Rxb5 would allow another SKEWER: Rh5+)
Q129. a) Kc5 (Kb6 would lose to Rb8+ followed by promotion)
Q130. b) Kc4 (After Ra2 White has a DISCOVERED ATTACK: b4+)
Q131. b) Rf3+ (If White captures, Black promotes to a queen with a SKEWER)
Q132. a) c1Q (h5 is a draw: 2. Rc7+ Kh6 3. Rc8 threatening mate 3... Kh7 etc)
Q133. b) Rd5 (Either winning a second pawn or reaching a winning pawn ending)
Q134. b) Rh7 (Threatening mate and ensuring promotion: e7 loses to 1... Rc5)
Q135. a) Rb6 (This will draw: Rxh6 allows a SKEWER)
Q136. a) b4 (After Rxg6 Black can play Rg3+ when Rxg3 is STALEMATE)
Q137. a) Rf7+ (The pawn will promote after $1 . . . \mathrm{Ke8} 2$. h7: the immediate h7 is a draw after $\mathrm{Rg} 5+$ )
Q138. a) Re5 (The plan is to play Rh5: Rh2 loses the rook to a SKEWER in two moves time)
Q139. b) Kg6 (Kf4 would allow Rf5\#)
Q140. b) Rh2+ (Black is winning the pawn ending after 2. $\mathrm{Rh} 4 \mathrm{Rxh} 4+3$. Kxh4 Ke5)
Q141. b) Kc5 (Black needs to get back to stop the white pawn after a rook exchange)
Q142. a) d3 (Threatening Rb1\# so White won't have time to take on c3 and the pawn will promote)
Q143. a) Rxa5 (Black will either promote or win the rook for the pawn: Kxa5 loses to a SKEWER)
Q144. b) h2 (Black gives up the rook to promote: after 1... Rxf6 2. exf6 both pawns will promote)

Q145. Kf5 (Forcing mate: the plan after, say, Bg5 is Nxg4, Ne5, Nf3, g4\#)
Q146. 95 (hxg 5 will be STALEMATE)
Q147. Kd5 (White wants to prevent Nc 4 so that the pawn will promote)
Q148. Bxf4 (Black will be left with bishop and wrong rook's pawn)
Q149. Kc6 (Preventing Nc7: immediate promotion would allow a KNIGHT FORK)
Q150. Nc7+ (Kd6 will allow Nb5+: a FORK/DEFLECTION, winning the bishop or promoting)
Q151. Kc7 (Kb7 next move will TRAP the bishop)
Q152. h6 (After Kh5 Black will play Bf4 and eventually force the white king away)
Q153. d5+ (A DISCOVERED ATTACK as well as a FORK)
Q154. Bd8 (Black has to be able to answer c6 with Bxb6)
Q155. d3 (SACRIFICING the bishop to promote the pawn: other moves allow Kc4 with a BLOCKADE)
Q156. Kg6 (Black has to prevent the knight coming to f7: other moves lose to Ne5)
Q157. b) Bd6 (White can win by keeping the pawn: Bxa5 is an immediate draw)
Q158. b) Kc7 (This should draw: a6 allows Nc5+ and Black will win the pawn ending)
Q159. a) $\mathrm{Kf}_{3}$ ( Nh 4 allows Be1: a SKEWER leading to a winning pawn ending)
Q160. a) b6 (Kf2 loses to Nd3+, a FORK/DEFLECTION)
Q161. a) Bc1 (f4 blocks the bishop's path and allows the breakthrough SACRIFICE b4)
Q162. b) h4 (g4 loses to g5 when Black will be able to hang onto the pawn and eventually win)
Q163. b) b3 (After a2 White will have a BLOCKADE and Black won't be able to make progress)
Q164. a) Kf5 (If Kxf3, 2. Nf6 Bf5 3. Nxh7 is a draw)
Q165. b) g6 (a3 is only a draw: for instance 2. Bxa3 Kxf4 3. Bc1+ followed by Bxh6)
Q166. a) $\mathrm{Ng}_{4}$ (h4 is met by Bc3: a PIN winning the knight)
Q167. b) Bc6 (White was threatening Nf7, which Black will now meet with Be 8 )
Q168. b) Ne6 (After Nd5 White will play b7 and promote the pawn)

## GLOSSARY

## ATTACK

If we say that a piece ATTACKS an enemy piece we mean that it could capture it next move. After the moves 1. e4 e5 2. Qh5 the white queen ATTACKS three pawns.

## BACK RANK MATE

A CHECKMATE with a rook or queen on the BACK RANK, most typically when the king's potential escape squares are blocked by his own pawns.

## BACKWARD PAWN

A pawn which is behind pawns of the same colour on the adjacent files and cannot easily advance. A BACKWARD PAWN on a HALF-OPEN FILE can often be very weak.

## BAD BISHOP

A bishop blocked in by its own pawns.

## BLOCKADE

A position in the ending where one player has what would normally be a winning material advantage but cannot make progress. This often happens in endings with BISHOPS OF OPPOSITE COLOURS.

## BLUNDER

A mistake, in particular a bad mistake which loses material (points) or allows CHECKMATE.

## CASTLING

A special move with the king and the rook. To CASTLE you move your king two squares towards the rook and your rook over the top to the next square. If you're White and you CASTLE on the KING SIDE your king will end up on g1 and your rook on f1. If you castle on the QUEEN SIDE your king will end up on c 1 and your rook on d1. You can only CASTLE if a) neither your king nor rook has moved b) there are no pieces between the king and the rook c) you are not in CHECK at the moment d) you do not move into CHECK and e) the square crossed by your king is not CONTROLLED by an enemy piece.

## CHECK

A move which THREATENS the enemy king. If you are IN CHECK you have to get out of check immediately. You are not allowed to play a move that leaves your king IN CHECK, but if your opponent does this you CANNOT win the game by capturing the enemy king: instead you must ask your opponent to retract the move and play a legal move instead, if possible moving the piece that was touched.

## CHECKMATE

A situation in which one player is IN CHECK but CANNOT get out of CHECK, either by moving the king to a safe square, blocking the CHECK or capturing the piece giving CHECK. If you CHECKMATE your opponent you win the game.

## COMBINATION

A series of moves, often involving a SACRIFICE, using a combination of TACTICAL ideas to gain an advantage or possibly to reduce a disadvantage.

## CONTROL

A piece is said to CONTROL a square when it could capture an enemy piece landing on that square. For example, a white pawn on e4 CONTROLS the $\mathrm{d}_{5}$ and $\mathrm{f}_{5}$ squares.

## DECOY

A move, sometimes a SACRIFICE, designed to force an enemy piece onto an unfavourable square, for instance, a square where it might be FORKED or PINNED.

## DEFEND/DEFENCE

A piece which is DEFENDING another piece, or sometimes a square, is a piece which would capture an enemy piece. For example, after the moves 1. e4 e5 2. Nf3 Nc6 the black knight on c6 is DEFENDING the pawn on e5 which is ATTACKED by the white knight on f3.

## DEFLECTION

A move, sometimes a SACRIFICE, designed to force an enemy piece away from a square where it is carrying out an important defensive function.

## DEVELOPMENT

At the start of the game we DEVELOP our pieces: we get them off the back RANK and into the game. Usually we develop our MINOR PIECES quickly. Queens and rooks usually stay at home early on. CASTLING is also a DEVELOPING move which we usually aim to play quickly.

## DISCOVERED ATTACK

A move which, by another piece moving out of the way, opens up an attack from a LINE PIECE on an enemy target. If the attack from the LINE PIECE is a CHECK this move is a DISCOVERED CHECK.

## DISCOVERED MATE

A DISCOVERED CHECK which is also CHECKMATE.

## DOUBLE CHECK

A DISCOVERED CHECK where the piece moving away also gives CHECK so that the enemy king is in CHECK from two pieces at the same time. The only way to meet a DOUBLE CHECK is with a king move.

## DOUBLED PAWNS

Two pawns of the same colour on the same file. DOUBLED PAWNS are often, but not always, a weakness. Three pawns of the same colour on the same file are TRIPLED PAWNS.

## DRAW

There are several ways to DRAW a game of chess. You can draw by STALEMATE. You can draw by reaching a position where neither side can possibly get CHECKMATE: for example king against king, king and bishop against king or king and knight against king (sometimes called INSUFFICIENT MATERIAL). You can draw by AGREEMENT: one player proposes a draw and the other player accepts the proposal. In tournaments you can claim a draw by REPETITION if exactly the same position has been reached three times with the same player to move (note that it's REPETITION OF POSITION, not of moves) or by the 50 MOVE RULE if both players have played 50 moves without a pawn move or capture taking place.

## EN PASSANT

A special pawn capture. If your pawn is on your FIFTH RANK and your opponent moves a pawn on an adjacent FILE TWO SQUARES you can if you choose CAPTURE the pawn EN PASSANT: as if it had moved only one square. If you have a white pawn on e5 and black moves the pawn from d7 to d5 you can, but only on your next move, capture it while it's passing the d6 square so your pawn ends up on d6.

## EXCHANGE

The word EXCHANGE has two meanings in chess. It can mean a trade, particulary an equal trade, a trade of like for like. We might exchange queens, or pawns. It also means the advantage of rook for MINOR PIECE. So we might deliberately trade a rook for an enemy knight: we SACRIFICE the EXCHANGE or play an EXCHANGE SACRIFICE. We might also win the EXCHANGE or BLUNDER the EXCHANGE.

## FIANCHETTO

A bishop development to $\mathrm{g} 2 / \mathrm{g} 7$ or $\mathrm{b} 2 / \mathrm{b} 7$ after moving the knight's pawn one square.

## FILE

A vertical line of squares on a chessboard. We name the file based on its letter: the a-file through to the h -file.

## FORK

A move which creates TWO THREATS at the same time with the same piece in different directions.

## GAMBIT

An opening in which one player SACRIFICES MATERIAL to gain an advantage in, for example, development, centre control or king safety.

## GOOD BISHOP

A bishop not blocked in by its own pawns.

## ISOLATED PAWN

A pawn which has no pawns of the same colour on the adjacent files. An ISOLATED PAWN can often be a weakness.

## KING SIDE

The side of the board on which the kings start: the e-, f-, g- and h-FILES.

## LÉGAL'S MATE

A checkmate in which you move a PINNED knight, SACRIFICING your queen to get a CHECKMATE with your MINOR PIECES

## LINE PIECE

A piece which moves along a straight line: a queen, rook or bishop.

## MAJOR PIECE

Your MAJOR PIECES are your queen and rooks.

## MATE

Another word for CHECKMATE, just as phone is another word for telephone.

## MATE IN 2

A MATE IN 2 puzzle is a puzzle in which you have to find a move which FORCES MATE in two moves whatever your opponent plays in between. You play a move, and, no matter what I do next, you will CHECKMATE me the following move. There's no way for me to prevent it. Likewise, MATE IN 3, MATE IN 4, MATE IN 5 and so on.

## MATERIAL

The words MATERIAL and POINTS are used in relation to the values of the pieces (a queen is worth 9 points, a rook 5 points, a bishop or a knight 3 points each, a pawn 1 point). We might play a move which wins MATERIAL or POINTS, or make a mistake which loses MATERIAL or POINTS.

## MINOR PIECE

Your MINOR PIECES are your knights and bishops.

## NOTATION

Chess NOTATION is a way of writing down chess moves. This book uses STANDARD (ALGEBRAIC) notation, using the names of the squares from the FILES and RANKS. You might have been taught DESCRIPTIVE NOTATION (P-K4 rather than e4) if you learned chess a long time ago, or come across it in old books.

## OPPOSITION

A situation in the ending where the kings are two squares apart and the player whose turn it is to move has to move the king away allowing the opponent's king to advance. If it's NOT your move you are said to 'have the OPPOSITION', which is almost always an advantage.

## OUTPOST

A square in or near enemy territory which is protected by a friendly pawn and cannot be attacked by an enemy pawn. Knights on OUTPOSTS are often very strong. Sometimes also called a SUPPORT POINT.

## OVERWORKED PIECE

A piece carrying out two defensive duties at the same time which can be DEFLECTED away from one of its jobs.

## PASSED PAWN

A pawn which can potentially reach the end of the board without being blocked or captured by an enemy pawn.

## PAWN BREAK

A pawn move attacking a blocked enemy pawn, allowing or forcing a pawn exchange to open up the position. Sometimes also called a PAWN LEVER.

## PHILIDOR'S LEGACY

A form of SMOTHERED MATE involving a DOUBLE CHECK followed by a QUEEN SACRIFICE.

## PIN

A situation in which a piece CANNOT or SHOULD NOT move because it would expose another piece to capture along a line. Only LINE PIECES can PIN enemy pieces. A PIN against a king is an ABSOLUTE PIN: the pinned piece is not allowed to move. If a piece is PINNED against a queen, it CAN move but will allow the queen to be captured. A piece may also be PINNED against a square, typically a MATING square.

## PIN MATE

A form of CHECKMATE in which it at first appears that another piece can capture or block the checking piece, but it cannot in fact do so because it is PINNED against the king.

## POINTS

The values of the pieces (see MATERIAL). The POINTS you might score in a chess tournament are not the same thing at all.

## PROMOTION

When your pawn reaches the BACK RANK it is PROMOTED. You exchange the pawn for another piece of your choice: a queen, rook, bishop or knight. As the queen is the most powerful piece you will usually choose a queen. You're allowed to have more than one queen on the board at the same time (and also more than two rooks, bishops or knights, should you choose).

## QUEEN SIDE

The side of the board on which the queen starts: the a-, b-, c-, and d-FILES.

## RANK

A horizontal line of squares on a chessboard, indicated by a number. Confusingly, we usually refer to ranks from our own perspective. If we talk about White's SEVENTH RANK, for example, we mean the RANK numbered 7, but if we talk about Black's SEVENTH RANK we mean the RANK numbered 2.

## SACRIFICE

A move that deliberately loses points in order to gain an advantage. You might play a SACRIFICE because you've LOOKED AHEAD and seen that you can get CHECKMATE, or because you can win the material back, maybe with interest. If you accidentally lose a piece because of an oversight it's a BLUNDER, not a SACRIFICE.

## SCHOLAR'S MATE

A CHECKMATE on the $\mathrm{f} 7 / \mathrm{f} 2$ square at the start of the game, with the queen supported by a bishop. For example: 1. e4 e5 2. Qh5 Nc6 3. Bc4 Nf6 4. Qxf7\#. Black's $3^{\text {rd }}$ move was a BLUNDER. Because this typically happens in four moves it's sometimes also called the FOUR MOVE MATE.

## SKEWER

A move by a LINE PIECE which THEATENS two enemy pieces in the same direction. The front piece has to move out of the way, allowing the rear piece to be captured.

## SMOTHERED MATE

A knight CHECKMATE in which the enemy king is surrounded by his own pieces, with the knight jumping over them to CHECK the king.

## STALEMATE

A position in which the player whose turn it is to move is NOT IN CHECK but can make no legal moves. The result of the game is a DRAW. Note that STALEMATE is not another word for DRAW: it's just one type of DRAW.

## STRATEGY

STRATEGY in chess involves long-term planning. This means thinking about how you can get your pieces onto good squares, and keep your opponent's pieces off good squares. It's often said that TACTICS is what you do when there's something to do, while STRATEGY is what you do when there's nothing to do.

## TACTICS

TACTICS in chess is a loose term involving ATTACKING and DEFENDING, TACTICAL DEVICES such as FORKS, PINS and DISCOVERED ATTACKS, COMBINATIONS and CHECKMATES. Books on TACTICS will include puzzles based on some or all of these themes.

## TEAM ATTACK

A situation in which an enemy target is attacked by more than one piece. It may well also be defended by several pieces. For example, 1. e4 e5 2. Nf 3 Nc6 3. d4 creates a TEAM ATTACK on e5. Although this happens in almost every game of chess there's no generally accepted term so you probably won't come across the term TEAM ATTACK elsewhere.

## THREAT

A THREAT is something you WANT to do next move: usually a move which wins MATERIAL or gets CHECKMATE. After 1. e4 e5 2. Qh5 the white queen is ATTACKING three pawns but is only THREATENING one pawn:

## TREBUCHET

A situation in pawn endings where two pawns stand next to each other, and the kings are a knight's move apart, both attacking and defending both pawns. The player whose turn it is to move has to move away, allowing the pawn to be captured.

## ZUGZWANG

A position in which, if it's your move, you have to play a move which makes your position worse. ZUGZWANG positions often occur in PAWN ENDINGS.

## ZWISCHENZUG

An 'in-between' move: for example if, instead of making a recapturing you play another move first which your opponent has to deal with, only making the recapture later.

