Learn and Master Progressive Chess

Matej Guid

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Preface

Progressive chess is an incredibly exciting game. This chess variant was particularly popular among Italian players in the last two decades of the previous century, but seems to be almost forgotten at the time of this writing. The aim of this book is to provide training materials that will enable interested readers to learn and master the game progressive chess.

The author assumes basic knowledge of the game of chess. From the perspective of education, mastering progressive chess may lead to improved imagination and calculation skills. The game of progressive chess may also provide a challenging domain for chess composers.

The preparation of the training materials used in this book would be hardly possible without the excellent computer program *Progressive Chess* created at the University of Ljubljana. The program is freely available online and is presented in detail in the following publication:

Vito Janko and Matej Guid. "A Program for Progressive Chess." *Theoretical Computer Science* 644 (2016): 76-91.

The program was developed by Vito Janko as a part of his master's degree thesis at the Faculty of Computer and Information Science, for which he also received the faculty's award for students.

Developing a computer program for progressive chess is a very difficult task. The extremely large branching factor due to the combinatorial explosion of possibilities produced by having several moves per turn makes progressive chess a very rich environment for testing new algorithms and ideas. In particular, an efficient search for checkmates in progressive chess is a very interesting challenge and may be both fun and an insightful part of any course on artificial intelligence.

By developing a strong computer program and training materials, we hope to revive the interest in progressive chess among chess players. By the book and the computer program, the chess players may obtain a strong playing partner and an adequate analysis tool. Moreover, they will possess learning materials that will enable them to confront both the computer program and other progressive chess players all over the world.

We hope that you will find this book useful on your own way to become a master of progressive chess and have as much fun playing this game as we did in creating this book for you.

Matej Guid
Ljubljana, Slovenia
2017

Foreword

In my late teens I was an avid chess enthusiast, playing on board one for a tiny club in Hamburg, Germany. I did fairly well, considering I knew very little openings theory – that aspect of the game was too tedious for my taste. I relied completely on tactical skills, and that was not enough to bring me to full master level. So I started experimenting with chess variants and chess problems.

I solved countless mates in 2, 3 and more moves, and fell in love with the compositions of Sam Loyd. Then I turned to helpmates, which are problems in which Black helps White to mate him in a specified number of moves. That genre shows you the breath-taking range of mates that are possible in chess but will never occur in regular tournament play. From there I progressed to series helpmates, a problem form in which Black plays a specified number of consecutive moves, all of which must be legal, after which White can deliver mate in one move. It was a bit outlandish, even though there were many beautiful and wondrous examples.

But of course over-the-board chess, a contest between two humans, has a primeval attraction, and I continued playing. To overcome my weakness in openings knowledge I dabbled in chess variants, of which there are hundreds. For a while I played Checkless Chess, quite intensely. This variant is completely defined by one simple rule: checks are illegal unless they deliver mate. Suddenly the king becomes a powerful attacking piece, a kamikaze warrior living dangerously to restrict the enemy's forces. I spent some months playing this game quite intensely.

And then I discovered *Scottish Chess,* so named I believe because it was first played in Scotland in the late 1930s. Actually that is not well-established fact, but at least England appears to be the most likely country of origin. Which is not of crucial importance, since the game soon became universally known as Progressive Chess, when it became popular as high-level tournaments were being staged. Soon it was – and is to this day – one of the most widely practised of all chess variants. Hundreds of tournaments have been staged over the years, and there is database of games, PRBASE, with more than ten thousand master-level games. Italy was the dominant country where Progressive Chess was played, during a period when the Soviet Union dominated classical chess, and the great champions in the history of Progressive Chess all bear Italian names like Leoncini, Magari, Dipilato, Polacco and Cassano – corresponding to Alekhine, Botvinnik, Petrosian, Spassky, Karpov and Kasparov in classical chess.

In Progressive Chess White starts with a single move, Black replies with two consecutive moves, White has three consecutive moves, and so on. Checks are only allowed on the final move, so that the opponent's king can get out of it. Checking the opponent's king in the middle of a sequence means it ends there and it becomes the turn of the other side again, and of course no player may expose his own king to check at any time during his turn. These two very logical rules give the game a special flavour, and especially Progressive Chess problems and studies become wonderfully challenging because of them.

After an initial period of disinclination I became a dedicated Progressive Chess fan, and soon a fairly competent player, actually winning a lot of games, because (a) nobody else had studied it systematically and my lack of openings knowledge was not an issue; and (b) my experience with helpmates and series helpmates was a big advantage. Progressive Chess was very attractive because the action started much sooner than in classical chess, where there is usually a fairly long phase when very little happens – you are basically making sure you don't lose material and are trying to manoeuver your pieces onto good squares. Even in the middle and endgame there are long phases which can be fairly tedious. In Progressive Chess, on the other hand, the action comes after just a few moves – usually on turn five or six you sit there calculating very deep and complex tactics, lines that could lead to mate or a game-deciding advantage, with the danger that you might be overlooking a reply, one move longer, that could lead to your own demise. You soon learn that giving check on the last move of a sequence is a good strategy, as it restricts the opponent to getting out of check on his first move. And already on White's third and fourth turns you are looking at the promotion of pawns that have not yet moved. And as in Checkless Chess the king becomes a powerful attacking piece when it advances into enemy lines. There it can sorely restrict the opponent's ability to capture or to advance pawns because those moves lead to premature checks. The endgame has its own strategic rules. For instance king and rook vs king is almost always a draw, whereas king and two knights vs the bare king (prepare for this) is a win for Black, but not for White! The reason is that Black always has an even number of moves on his turn, while White's odd-number oscillations with a bare king make him vulnerable to a checkmate with two knights. There are many such strategical points that have to be learned if you want to become a master.

I played Progressive Chess intermittently for maybe a year, but it was difficult to find opponents. There were a lot of tournaments, but few (actually none) in my area of residence. And so after a while my over-the-board activities in this attractive field of chess ran dry. Luckily I discovered that it is not absolutely necessary to have an opponent sitting across from you to enjoy the variant. There is a whole world of Progressive Chess *problems,* positions with very clever and very deep solutions, in many cases equal in beauty to my beloved helpmates. And so I continued to delve into this field, solving mates and studies, but very rarely actually playing a game.

Then I learned, quite recently, that a friend, Professor Matej Guid of the University of Ljubljana, had actually written a book on subject, a comprehensive volume with all the information you need to get started (or become an expert). I read it voraciously and spent pleasant hours solving some of the hundreds of problems and studies that he has included. I have also learned that a graduate student at the University of Ljubljana, Vito Janko, has developed a Progress Chess playing program that gives you a strong opponent or training partner, as well as an analytical tool to study games and problems. As chance would have it, part three of this book gives you basic lessons in openings and endgames, just as any normal chess primer helps you get started in the classical version.

I strongly advocate that you peruse this e-book, the first comprehensive work in a non-Italian language; and get the Progressive Chess engine of Vito Janko, which is also available as a mobile app. Then you can give this fascinating chess variant a try. Chances are you will not regret it.

Frederic Friedel
Editor-in-chief at ChessBase.com and co-founder of ChessBase

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Part 1
Introduction

Progressive chess

In progressive chess, players play progressively longer series of moves. White starts from the initial chess position with playing one move, Black then makes two consecutive moves, White replies with three moves, Black then plays four moves, and so on. We will call a sequence of moves a *turn*.

The standard rules for chess apply, with the following six exceptions:

- Players alternately make a sequence of moves of increasing number.
- A check can be given only on the last move of a turn.
- A player may not expose his[1] own king to check at any time during his turn.
- A king in check must get out of check with the first move of the sequence.
- A player who runs out of legal moves during his turn is stalemated and the game is drawn.
- En passant capture is admissible on the first move of a turn only.

Below we show a short game in order to understand better what progressive chess really is.

GAME 1

1.e4

2.d5 ♘f6

White already threatened a checkmate at the square f7, using the bishop and the queen. The move d7-d5 prevents this idea, and the knight was developed to f6 in the same turn.

3.exd5 ♘f3 ♗b5+

White has taken a pawn and developed two pieces. Also, giving a check at the end of the sequence which limits Black's options. All of these seems reasonable, what do you think?

4.♗d7 ♗xb5 ♗e2 ♗xd1

Black responded to the check on the first move of the sequence, and then captured two dangerous opponent's pieces: the bishop and the queen. However, this was a decisive mistake.

5.♘e5 g4 g5 g6 gxf7#

1-0

Checkmate!

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[1] For brevity, we use 'he' and 'his' whenever 'he or she' and 'his or her' are meant.

The black king is now in check and has no place to go, since the pawn at f7 is firmly defended by the knight. White wins the game.

ANALYSIS OF GAME 1

The question is: did Black play well on the 4th turn? Well, it turns out that he had a much better sequence at his disposal.

4.c6 ♕b6 ♘e4 ♕f2#

In this case Black would have won the game by giving a checkmate with his queen.

So, where did White go wrong? Well, certainly on the 3rd turn. A much better response to Black's early opening moves would be the following sequence.

3.e5 d4 ♗b5+

This would lead to a position in which White has the better chances.

GAME 2

Let us take a look at a second game, which is a slightly more advanced game.

1.e4

2.d5 ♘c6

3.e5 d4 ♗b5

In this position, Black has four moves at his disposal. Black's priority is to remove the white queen from the board. It happened as follows.

4.♗g4 ♗xd1 ♔d7 ♕b8

With this sequence, Black has improved the position of his king and moved the queen to a square that is more difficult to reach by any white pieces. But, see what happened.

5.♘a3 ♘c4 ♘a5 ♘xc6 ♘xb8++

White captured the opponent's queen and knight by also giving a double check to the king, forcing it to lose precious time.

6.♔e6 ♖xb8 a6 axb5 ♔d7 c5

Black has captured two white pieces, secured the king again, and advanced with two of the pawns, bringing them closer to the square of promotion. Now it is White's turn.

7.a4 axb5 ♗h6 ♗xg7 ♗xh8 ♔d2 ♖xd1

White achieved the following: one of the dangerous black pawns and the black bishop on d1 were captured, also a rook has been removed from the board, and the position of the white king was slightly improved. White is currently a rook and two pawns up, which is also not bad.

However, White's sequence was in fact the decisive mistake! Black now has checkmate in eight moves at his disposal. Can you see the winning sequence?

8.cxd4 ♖c8 d3 d4 dxc2 c1♘ e6 ♗b4#

0-1

The final position deserves a diagram.

Black excellently coordinated the pieces, including a rather surprising promotion into a knight, in order to deliver checkmate in time. Fascinating play by Black!

In fact, this was a blitz game the author of the book lost to our *Progressive Chess* computer program. Indeed, the program was very helpful while preparing the materials for this book.

Strategy

For understanding the strategy it is necessary to analyze the decision making process. It can be summarized by the following three steps.

1. Look for a way to checkmate the opponent's king.

2. If a checkmate cannot be found, aim to destroy the opponent's most dangerous pieces whilst maximizing the survival chances of your own pieces.

3. Before executing an intended sequence of moves, ensure that the opponent cannot checkmate your own king on the next turn.

Finding progressive checkmates

As it is clear from the three steps above, the ability to discover checkmates – both for yourself and for the opponent – is crucial to master progressive chess. Therefore, in this book, we will devote much attention to this important topic.

Finding promising sequences of moves

When making a decision about the most promising sequence of moves, it is good to consider the following eight points of attention.

- Giving check on the last move of a turn often effectively reduces the opponent's sequence.
- A king on the back rank or with only a few accessible squares is likely to be at risk.
- Double checks can be especially dangerous, as the only possible response is a king move.
- Almost from the beginning of the game there is the ever-present risk of pawn promotions.
- Under-promotions are not uncommon, as it is often desirable to avoid premature checks.
- Pawn promotions can often be prevented by the king by exposing it to a premature check.
- Bringing the king too close to the enemy pieces may be dangerous.
- Putting the king in front of your own long range piece can be disastrous as well, as it can lead to a special kind of checkmate called "Italian checkmate".

The relative value of the pieces

The relative value of the pieces may differ significantly when compared to ordinary chess. Moreover, this value is also much more difficult to determine. For example, in the beginning of the game bishops are stronger than knights due to their long range abilities. However, in the endings knights are much better than bishops because of their ability to reach any square. Pawns may be of a high value when they threaten to reach promotion squares. Once the promotions are stopped, their value usually drops significantly.

ILLUSTRATIVE EXAMPLE

In the position in the diagram on the left, White has seven moves at his disposal. What could be a reasonable sequence of moves? Below we consider how a decision making process may look like.

White first looks for a checkmate, however, there is no checkmate in seven moves in this position. After looking at some seemingly promising sequences of moves (such as capturing the pieces on the queenside) and Black's responses to them, he realizes that the most dangerous opponent's pieces are the black rook on d1, the black bishop on h6, and the advanced black pawn on e4. He sees that all these pieces can be captured in five moves: ♘c3, ♘xe4, ♖xd1, ♖d6, and ♖xh6.

That leaves two more moves. White considers several options, however, several of them lose too much material on the next Black's turn or even lead to a checkmate. He decides that moving a pawn to f3 would both make his king safer, providing it with more space, and make it difficult for the black light squared bishop to reach the white rook on h1, since taking on f3 with either the bishop or the g4 pawn would lead to a premature check. Finally, he wants to make the rook on h6 slightly more difficult to capture by the black pieces. He decides that ♖h4 fulfills this purpose. Upon rechecking that the opponent has no immediate checkmate, he executes the following sequence.

7. ♘c3 ♘xe4 ♖xd1 ♖d6 ♖xh6 ♖h4 f3

After these consecutive moves the position in the diagram on the right side above occurs.

Let us briefly summarize what we may have learned from the example games so far.

- Progressive chess is a game of progressively longer sequences of moves.
- Checkmates play a very important role in this game.
- It is important to look for checkmates both for yourself and the opponent.
- The game is extremely sharp, but there are also several strategic elements to consider.
- Bringing pieces closer to the opponent makes them dangerous, but also vulnerable.
- The king safety needs to be taken into account right from the beginning of the game.
- Pawn promotions can be very dangerous.
- Choosing which pieces needs to be captured first may be vital.

We are ready to proceed with the training materials. We will start with checkmates of increasing lengths, continue with the “mysterious” Italian checkmate, explore winning positions with no immediate checkmate, and look for ways to achieve a draw when half a point is within reach only.

You may find some of the training materials very difficult, in particular at the start of your journey to master this game. Do not worry, even if progressive chess is a difficult game you will likely find out that being stubborn and consistent in order to solve progressive chess problems on your own leads to significant improvement.

All materials are structured and contain certain goals. By finding solutions to the carefully chosen challenges that are contained in the training materials, you will discover all kinds of patterns that play an important role in progressive chess. Learning and recognizing these patterns will help you to develop a feeling for both tactical nuances and strategic elements of the game.

The beginning of each chapter in the sequel of the book contains an illustrative, thought provoking diagram. These diagrams are not a part of the training program and are not discussed in the text.

Part 2
Training materials

Progressive checkmates

Finding progressive checkmates may be far from easy sometimes, and you are encouraged to take all the time you need in order to successfully solve the exercises that are given in the sequel. Each of the following chapters starts with illustrative examples. Study them thoroughly, as the exercises that follow are closely related to them.

Each problem has at least one solution. Several problems may have more than one solution. Also, the order of moves is often not important, and sometimes the pieces may reach their goals via different squares.

White to move checkmates in 7 consecutive moves (the solution is given on page 66).

Notice that it is always White to move when there is an odd number of moves, and Black to move when there is an even number of moves.

The solutions to the exercises are given at the end of the book. You are encouraged to take a look at the solutions only after you tried (and often this will mean tried hard) to solve the problems by yourself. All the problems were selected carefully in order to have some instructive value.

Finally, nearly all the problem positions were obtained from tournament games played by human players. The players themselves may have or may not have found the checkmate. However, the correctness of each solution was verified by our computer program.

Checkmate in 4

Black to move wins

The first example illustrates that progressive checkmates may happen even in the most unexpected ways. Notice also that advanced pawns often represent a serious threat, and that opening diagonals to opponent's bishops may not be such a good idea.

4.d3 dxc2 cxb1♕ ♗b4#

The queen is pinned, so it is checkmate.

The queen is always a very dangerous piece in progressive chess. In the opening the f7 and f2 squares are particularly vulnerable, as they are protected by the king only.

4.e6 ♗c5 ♕h4 ♕xf2#

The queen and the bishops are long range pieces and thus have a quick access to the opponent's king.

4.♕xd5 ♗g4 ♕xf3 ♕xd1#

The knight and the bishop may also team up and strike on the vulnerable f2 square.

4.♘f6 ♗c5 ♘e4 ♗xf2#

The king needs free squares around. The following mating pattern with the bishop and the knight is worth remembering.

4.♗g4 ♘c6 ♘d4 ♘xc2#

Discovered attacks with the queen and the knight can be a surprisingly powerful force.

4.exf6 ♘e5 ♕e7 ♘f3#

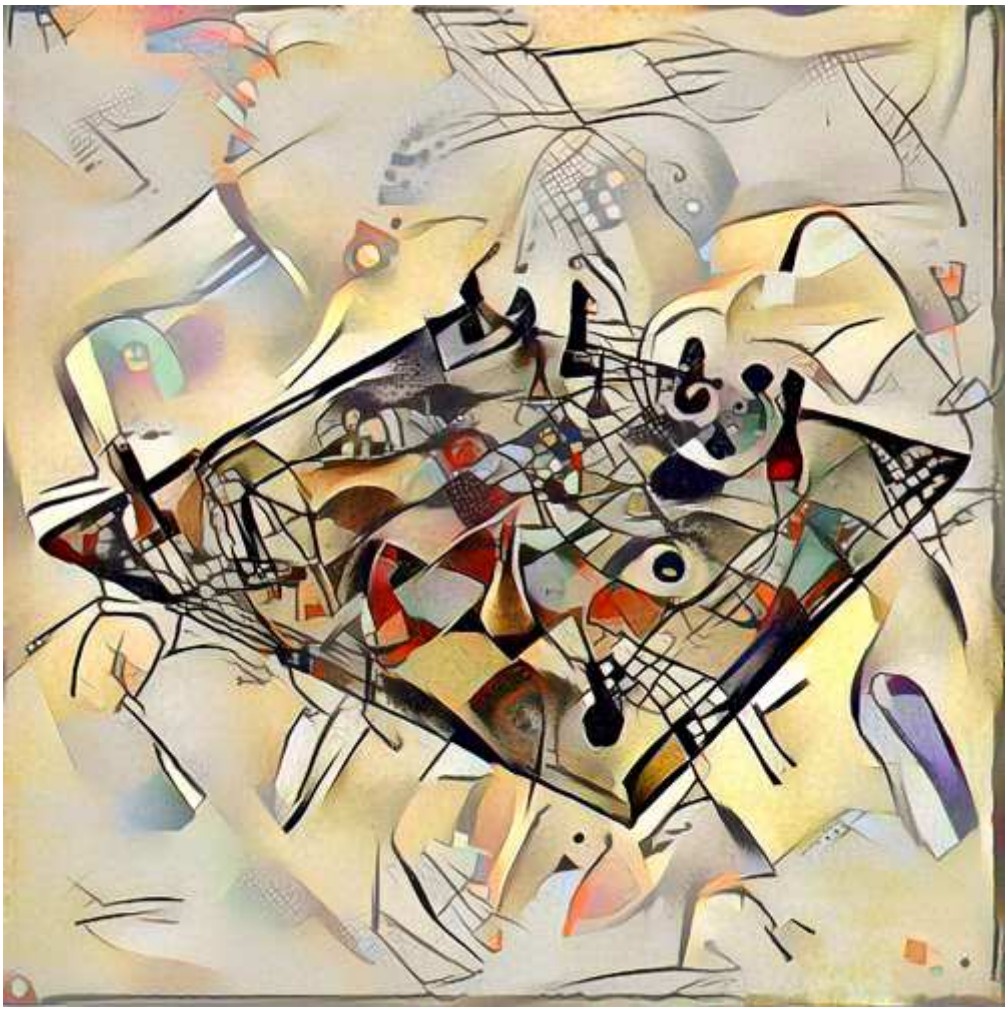










Checkmate in 5

White to move wins

On move five, the rooks may enter the game with decisive effect.

5.h4 ♖h3 ♖c3 ♖xc6 ♖e6# or

5.a4 ♖a3 ♖c3 ♖xc6 ♖e6#

It is double check and the king has no place to hide.

Pawns are getting increasingly more dangerous with every additional move.

5.♘e5 g4 g5 g6 gxf7# or

5.♘e5 ♘c6 d6 dxc7 cxd8♕# or

5.d4 ♗g5 d6 dxe7 exd8♕#

Remember that it is often useful to end your turn by giving a check, effectively reducing the opponent's sequence by one move.

Leaving the king on the back rank can often be very dangerous.

5.g3 ♗h3 ♘a3 ♖c1 ♖c8# or

5.♘c3 ♘a4 ♘b6 ♖c1 ♖c8#

The safest place for the king is usually the second rank for the white pieces and the seventh rank for the black pieces.

Looking for checkmate on the vulnerable square f7 is also something that often deserves attention.

5.♘f3 ♘xe5 ♗g5 ♗c4 ♗xf7#

The five move sequence may allow a very smooth interaction between pieces towards the common goal.

5.♔f2 ♘c3 ♖xd1 ♘xd5 ♘xc7#

Discovered attacks can still be very powerful and deadly.

5.♗d2 ♗b5 ♘a3 0-0-0 ♗g5#

The white queen is usually removed at the previous turn, however, the rook and the bishop, the rook and the knight, and even the bishop and the knight may team up effectively.













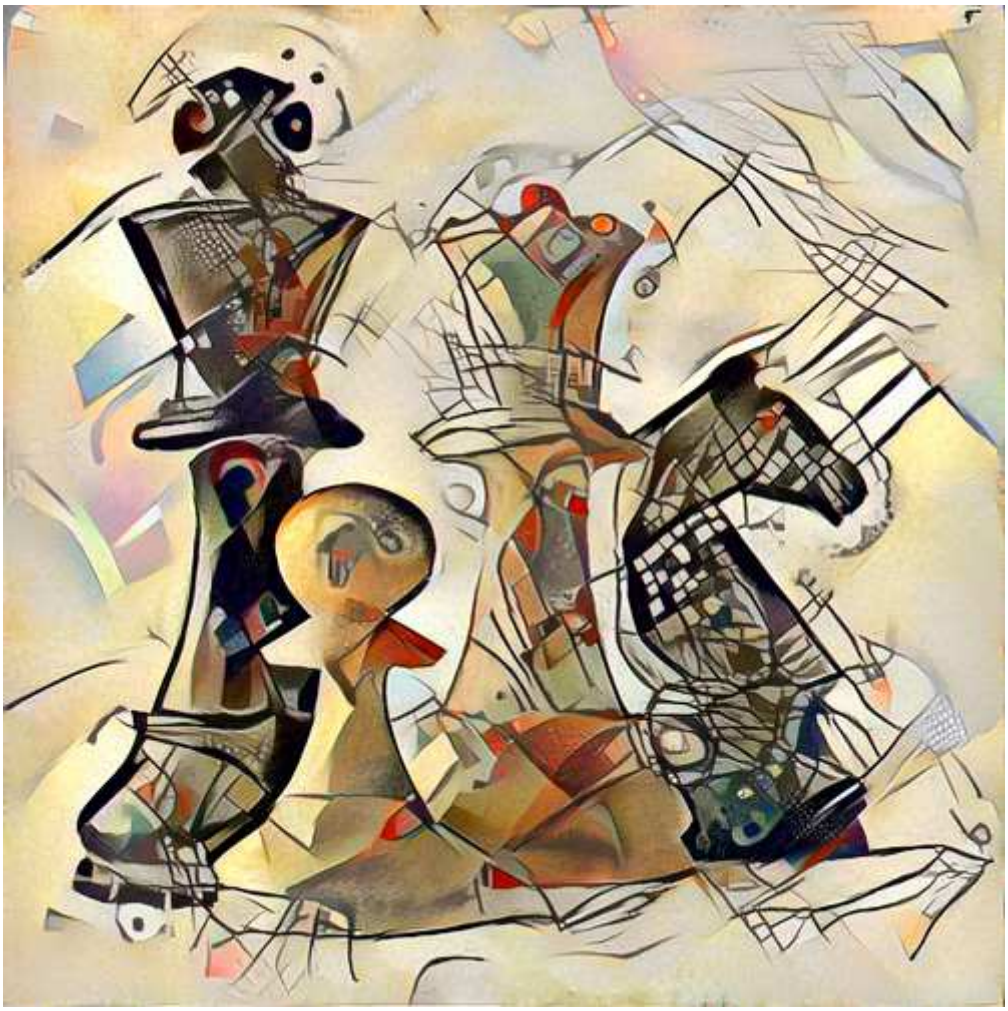












Checkmate in 6

Black to move wins

Six moves may lead to various interesting mating patterns.

6.♔xd8 ♖a6 ♖e6 ♖e3 ♘f6 ♘g4# or

6.♔xd8 e5 ♗b4 ♗xd2 ♘f6 ♘e4#

In the previous turn, five moves enable even the pawns on the starting squares to achieve promotion. However, spending too many moves to obtain the queen often leads to leaving the king exposed.

Having six moves allows the pawns on the starting squares to achieve promotion – plus playing an additional move, and that often makes all the difference!

6.d5 dxe4 e3 e2 ♗g4 exd1♕#

Stopping promotions – at least dangerous ones – is a very important part of progressive chess strategy.

The king on the back rank can be a huge liability now, even when it may not be very obvious.

6.g5 gxf4 ♖g8 ♖xg2 ♗e7 ♗h4#

However, having a bishop on e2 in front of the king on e1 can often be considered as a surprisingly good protection against checkmates.

The vulnerable square f2 is another reason why the king should leave the first rank as soon as possible.

6.♗g4 ♘f6 dxe4 e3 ♘e4 exf2# or

6.♗g4 ♘f6 ♗c5 ♗xd4 ♘e4 ♗f2#

Although we know that the king needs air, it is sometimes hard to choose priorities (e.g., eliminate more opponent's pieces or improve the safety of your own king).

More moves often means more possibilities for the pieces to weave a mating net for the opponent's king.

6.♗g4 ♗xf2 ♘c6 ♘d4 ♖d8 ♘e2#

Double checks may appear even more unexpectedly.

6.♖xd8 ♘c6 ♘e5 ♖e8 ♗xc2 ♘f3#

Checkmate in 6

Promotions

Checkmate in 6

Back rank

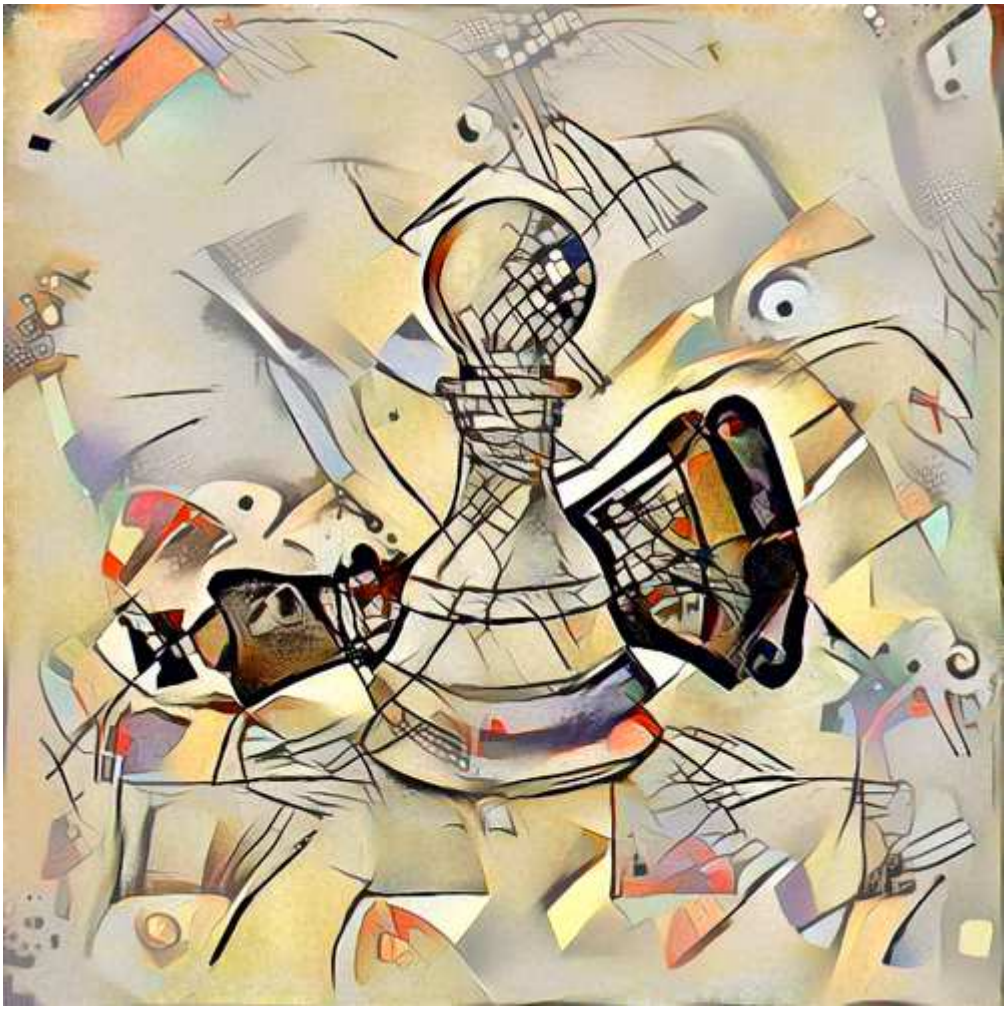










Checkmate in 7

White to move wins

Leaving the king at the back rank is now even more dangerous than before.

7.♗e2 ♘g6 f4 fxe5 e6 ♖f1 ♖xf8#

The rook and the knight often occur together in various checkmating patterns. Having several moves at his disposal allows some other piece (such as the f-pawn in this example) to join effectively.

It is important to envision which pieces may cover which squares around the opponent's king, and also which one is going to deliver the final check. In the diagram, only four squares need to be attacked. It turns out that it only takes two pieces to cover these squares.

7.♘g6 ♘f8 ♘e6 ♗h3 ♗f5 ♗xh7 ♗g6#

Looking for ways to cover the squares available to the opponent's king in as few moves as possible is a promising heuristic to guide the search.

The long range pieces such as the rooks and the bishops may arrive rapidly and cover several important squares.

7.♗a3 ♗d3 ♖e1 ♖xe6 ♖xc6 ♖c8 ♗f5#

The pattern with the rook on c8 and the bishop at f5 in the final position is particularly interesting to remember. The two pieces cover seven (out of nine) squares in the king's area, and at the same time the bishop protects the rook.

Another commonly seen checkmating pattern in seven moves involves promoting a pawn to a queen and then delivering checkmate with the bishop.

7.g4 g5 g6 gxf7 f8♕ ♗d3 ♗f5#

Again we can observe in the final position that the two pieces cover seven (out of nine) squares in the king's area.

Seven moves allow even the most remote pieces to join in weaving the net around the opponent's king.

7. ♗c4 ♔c2 ♘a3 ♖b1 ♖b8 ♘b5 ♘e5#

Although the black king had several available squares in the initial position, they all got covered by the four white pieces. An example of an excellent piece coordination in the checkmating procedure.

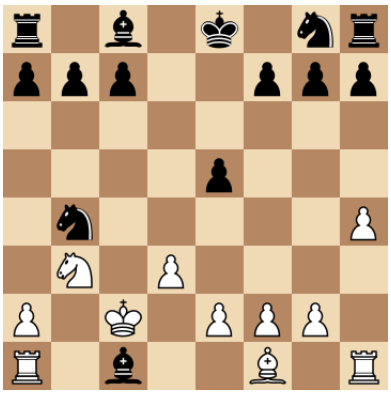
Double checks may still be a very powerful weapon, preventing the opponent's pieces to intervene.

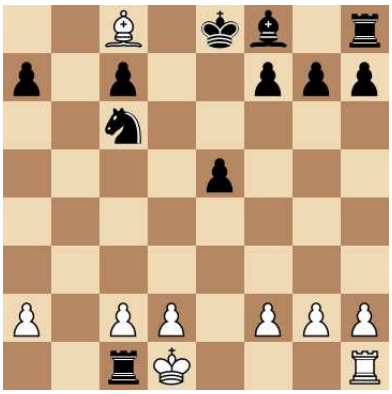
7.♗b5 ♘h3 ♘g5 ♘f7 ♘c3 ♖c1 ♘xd5#

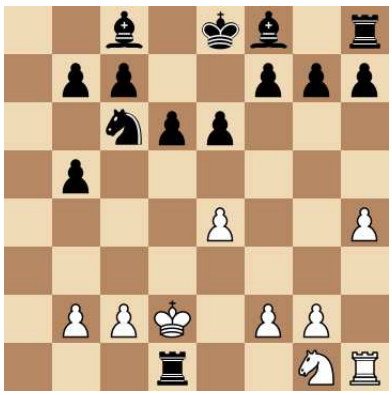
All squares in the area around the black king are covered, and the double check makes it impossible for the black knight on b8 to participate in the defense.

Checkmate in 7

Back rank

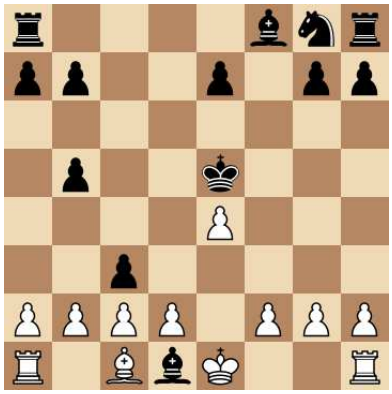














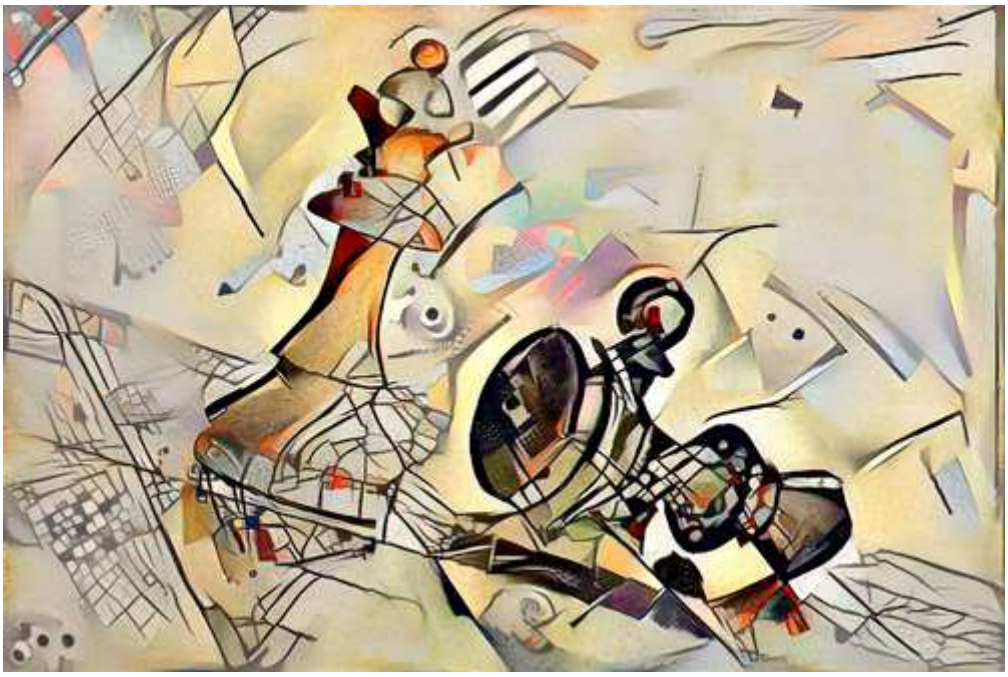










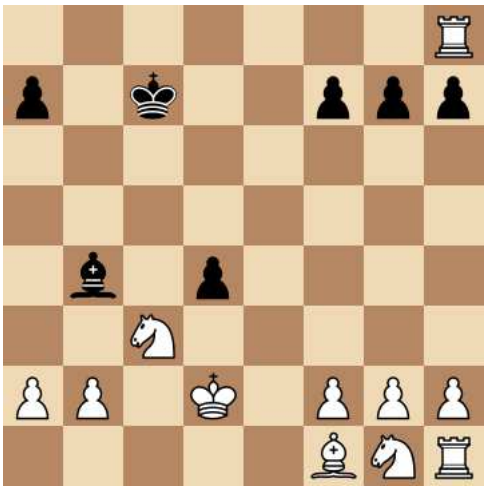



Checkmate in 8

Black to move wins

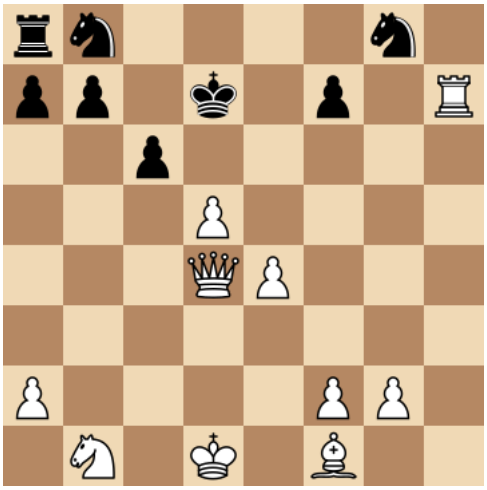
The main motif occurring in checkmates on the 8th move are promotions. Pawns may reach the promotion square in five moves from their initial position, and three further moves often provide a good opportunity to organize a promotion with checkmate.

8.♗b5 g5 g4 gxh3 ♘h6 ♖g8 hxg2 g1♕#



A promoted piece may just support another piece in a checkmating procedure by covering additional squares.

8.a5 a4 a3 axb2 b1♕ d3 ♗d6 ♗f4#



Leaving the king on the back rank can be a very bad idea even if there are few opponent's pieces left.

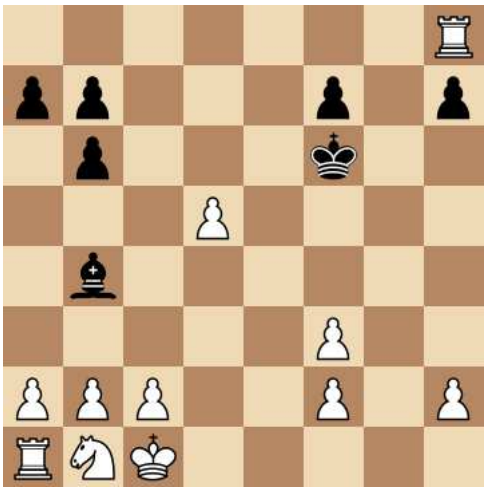
8.cxd5 ♘c6 ♘xd4 ♖c8 ♘b3 d4 d3 ♖c1#

Covering the squares in the opponent's king area is a part of every checkmate, and eight moves leave several options. In the present case, Black must first remove the king from the check. Then for covering the squares on the first rank the rook seems to be the right piece, and the bishop should be in charge for the black squares e3 and f2. Finally, the knight arrives in time to cover the remaining white squares.

8.♔d7 ♘f6 ♖c8 ♖xc2 ♖xc1 ♗c5 ♘d5 ♘f4#

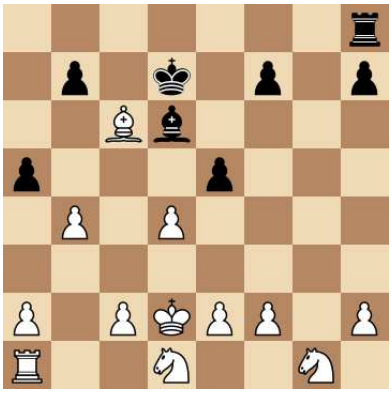
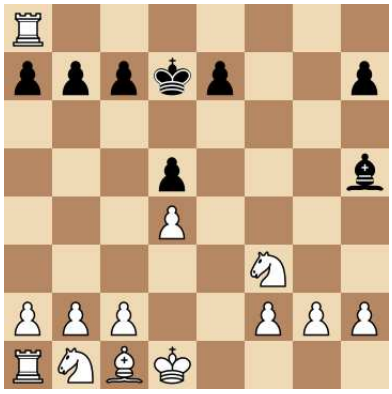
Coordinating pieces in order to weave the checkmating net around the opponent's king is often far from obvious.

8.♘g4 ♘xf2 ♗d6 ♖e8 ♖e1 ♖xc1 ♘d4 ♗f4#



Under-promotions should not be underestimated as they may avoid a premature check, sometimes with a decisive effect.

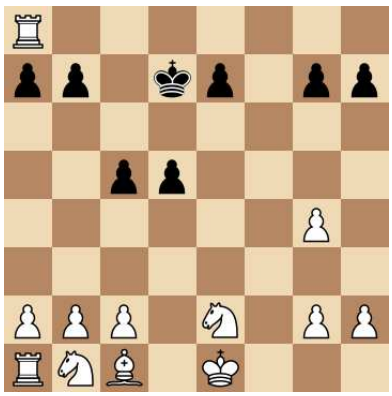
8.♗d6 b5 b4 b3 bxa2 axb1♘ ♘c3 ♗f4#

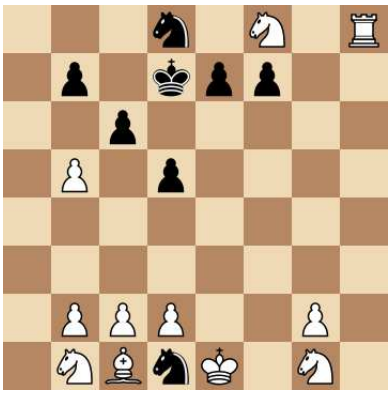


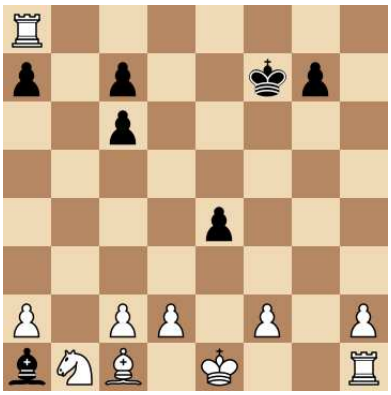




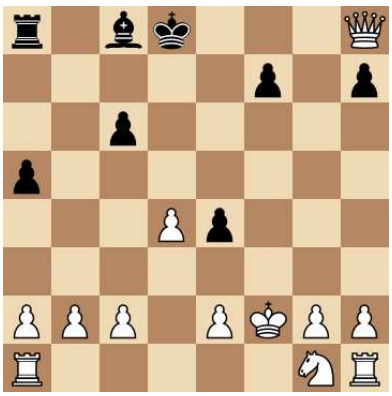
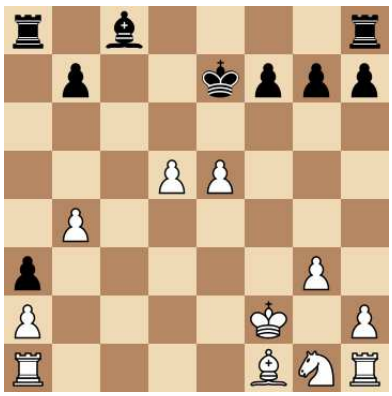



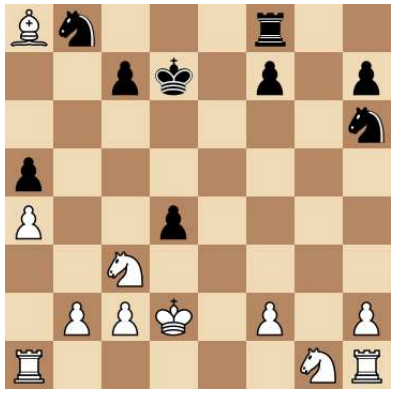


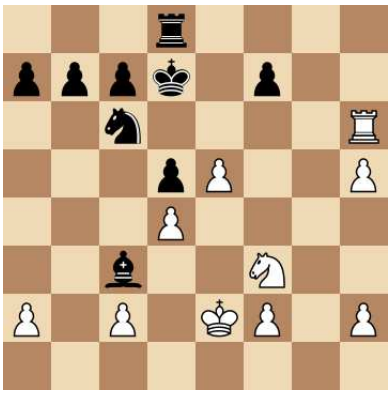



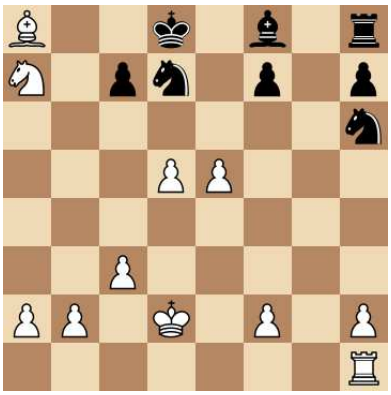



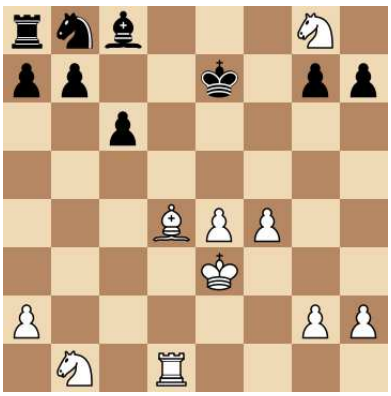




Checkmate in 9

White to move wins

Every pawn that has not been stopped from promoting may now represent a very serious threat to the opponent's king. In the present case, White delivers checkmate with two newly obtained queens.

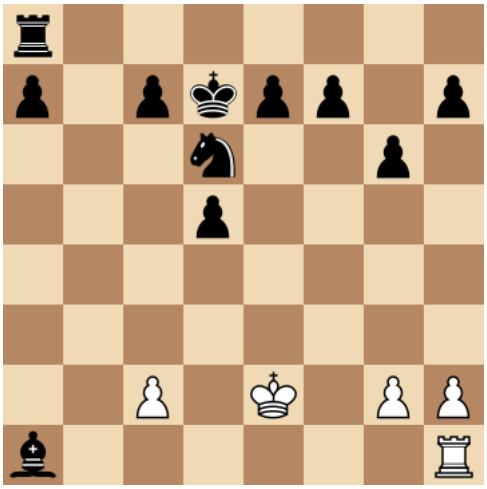
9.h4 h5 h6 hxg7 gxh8♕ ♕c8 g6 gxf7 f8♕#

It is not uncommon at this stage of the game to see the king taking an active part in a checkmating procedure.

9.♘b5 ♘xc7 ♔d3 ♔d4 ♔d5 ♔d6 h4 h5 ♘e8#

Pawns may reach the promotion square in five moves from their initial position, and now there are four further moves at disposal to involve other pieces as well.

9.g4 g5 g6 gxf7 f8♕ ♘a3 ♘b5 ♗b7 ♗c8#

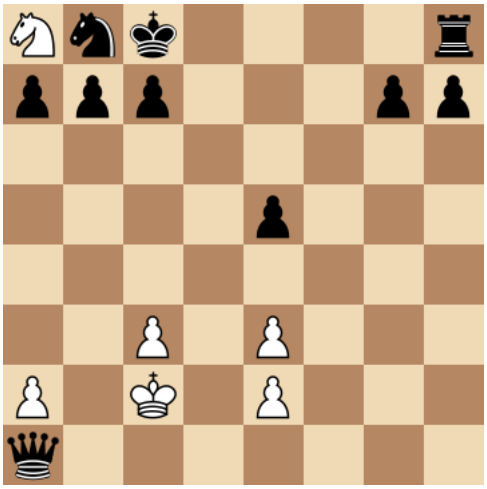


A rook and a queen represent a powerful force and even if they alone cannot deliver checkmate in time, with so many moves another piece may join effectively.

9.h4 h5 hxg6 gxf7 f8♕ c4 cxd5 ♖xh7 ♖xe7#

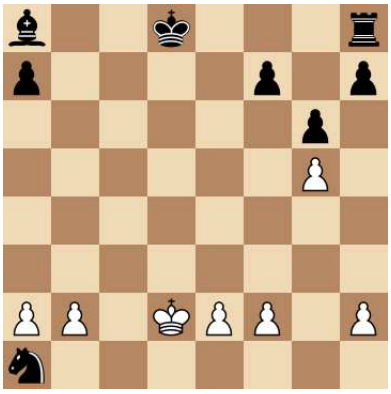
We already saw the checkmating pattern with a rook and a knight in similar positions. One can immediately envision the rook on e6 and the knight on g5 in this position. Here, however, the g8 square must be covered as well. Four extra moves allow the h-pawn to do this job.

9.♘c3 ♖e1 ♖e6 h4 h5 h6 h7 ♘e4 ♘g5#

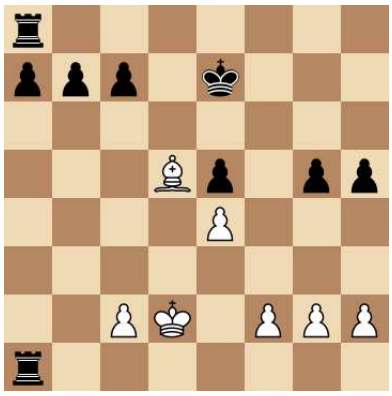


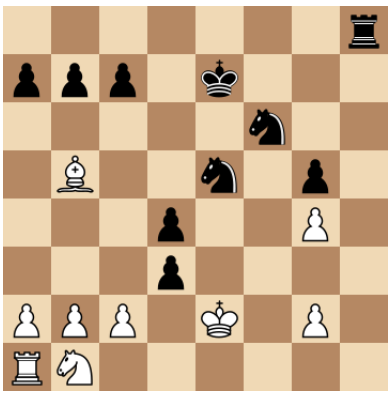
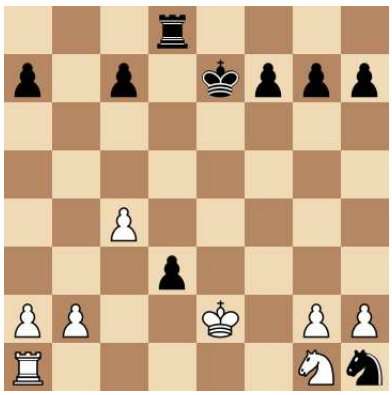
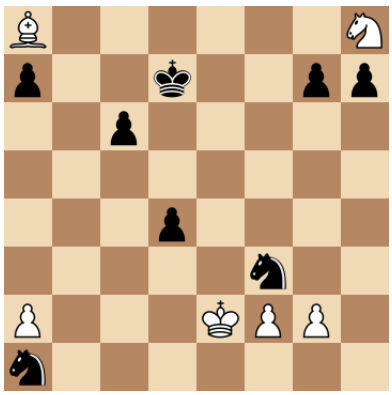
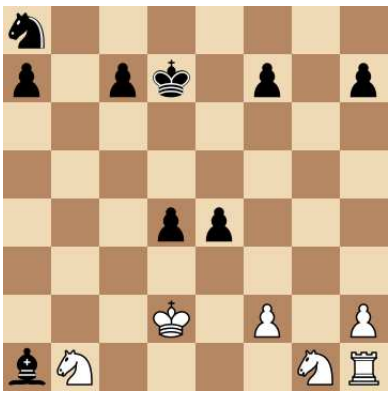
Long sequences often bring nasty surprises. In this position, Black is a queen, a rook, and two pawns up, and any promotions are stopped as well. However, there are just enough moves left to finish the game effectively.

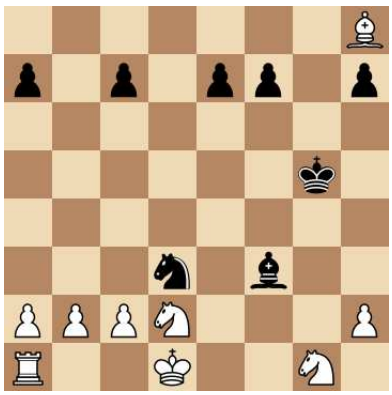
9.c4 c5 c6 ♘xc7 ♘e6 a4 a5 a6 axb7#





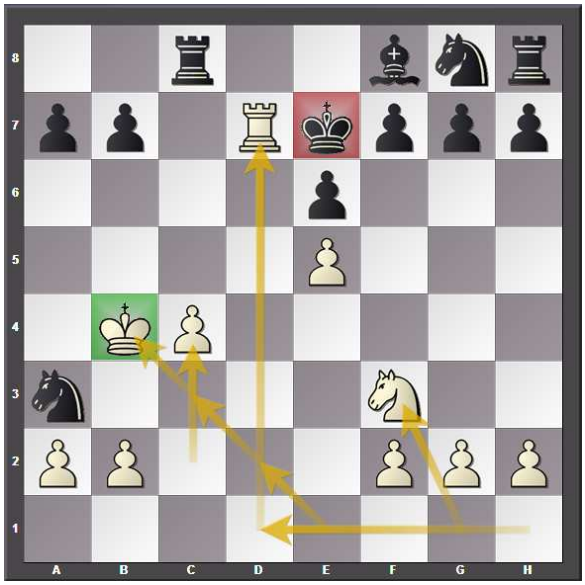




The Italian checkmate

The two main variants of progressive chess are Italian progressive chess and Scottish progressive chess. The former has been investigated to a greater extent, and a large database of games has been assembled. In Italian progressive chess, a check may only be given on the last move of a *complete* series of moves. In particular, if the only way to escape a check is to give check on the first move of the series, then the game is lost by the player in check. In Scottish progressive chess, check may be given on any move of a series, but a check also ends the series.



The controversial “Italian checkmate”.

It has been shown that the difference very rarely affects the result of the game. However, the Italian rules allow a special form of checkmate that is unknown to ordinary chess. It is called “Italian checkmate” and it involves an active role of a player’s own king, taking advantage of the fact that it is illegal to start a sequence of moves with a check.

Italian checkmates can bring additional excitement and aesthetic pleasure to the game, and it is really worth mastering them. Not only to avoid exposing your king to a decisive attack, but also to win sometimes in such a surprising manner.

The numbers by the diagrams denote the turn number, which is equal to the number of available moves.

Italian checkmate

Player to move wins

5

In Italian progressive chess, a check may only be given on the last move of a *complete* series of moves. If the only way to escape a check is to give check on the first move of the series, then the game is lost by the player in check.

5.♘b5 ♔e2 ♔d3 ♔xd4 ♘e5#

The black king is in check and cannot escape without resulting in a check to the white king (by the black queen).

This is called the “Italian checkmate”.

6

Giving a check on the first move of the sequence is thus illegal by Italian progressive chess rules.

6.♔d6 ♘c6 ♘d4 ♘xc2 ♘xe3 ♘c4#

Notice that at the end of the turn the attacker on c4 can actually be taken by the knight, however that is illegal due to a check to the black king on d6.

By Scottish progressive chess rules the check on the first move would just end the sequence. However, with eight moves at his disposal Black would be winning anyway.

7

When noticing the opponent’s king blocking the bishop’s diagonal, one should look whether a journey with the king may lead to success.

7.♔c2 ♘c3 ♖d1 ♔b3 ♔b4 ♔c5 ♖xd7#

The king had to go all the way to c5, making both captures of the white rook impossible due to a check.

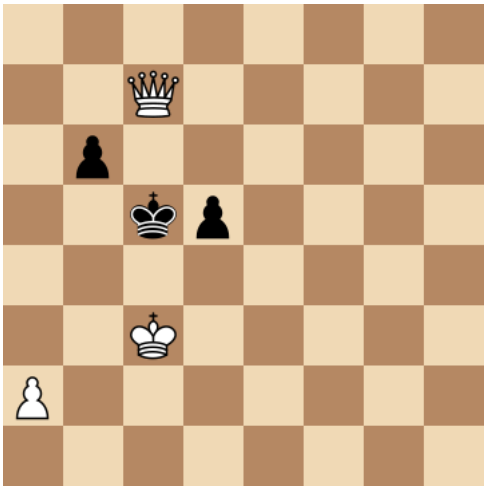
6 Putting the king in front of a long range piece is obviously dangerous. However, the Italian checkmate can occur also when this is not the case.

6.exd4 d3 dxc2 ♘xd4 ♔c7 c1♕#

The black king moved to c7, ensuring that the newly born queen cannot be taken by the white rook.

6 A rather surprising checkmate is possible due to lack of empty squares around the white king.

6.♘xd4 ♘b3 d4 d3 ♔d7 d2#



8 The Italian checkmate may happen even when you do not expect it to occur. In this position Black is completely lost, right?

8.♔b5 ♔a4 ♔a3 ♔xa2 ♔b1 ♔c1 b5 b4#

Wrong. It is checkmate!


6


6


6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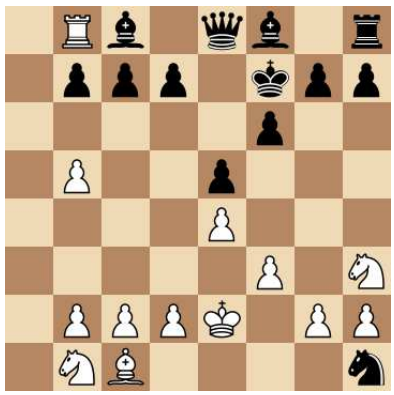
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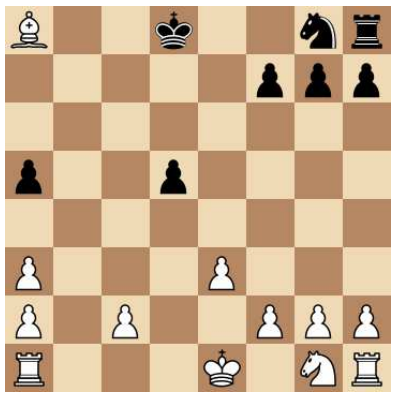
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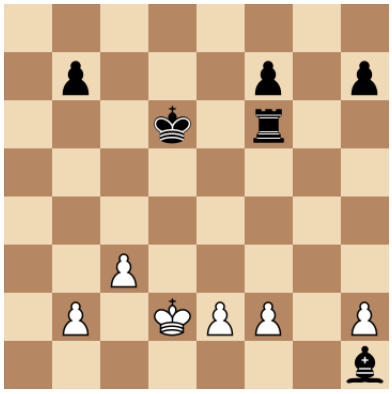
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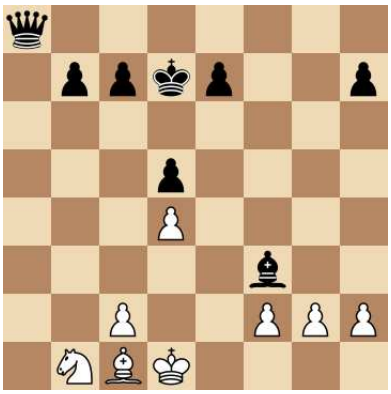
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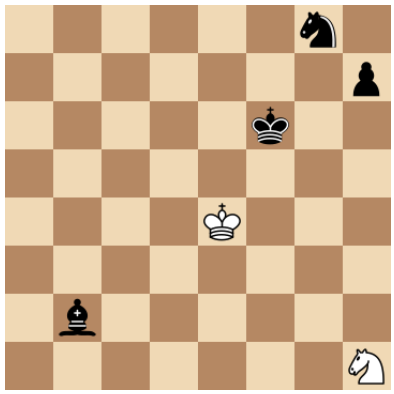
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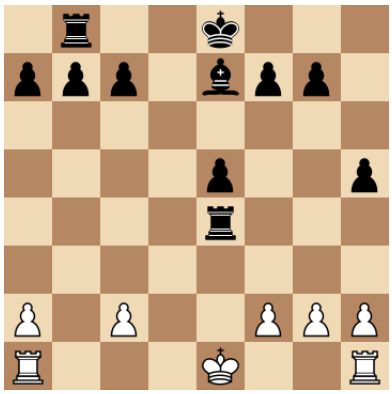
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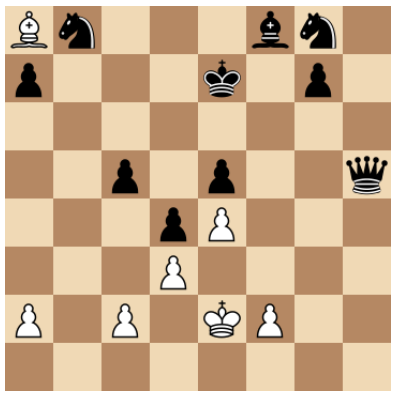
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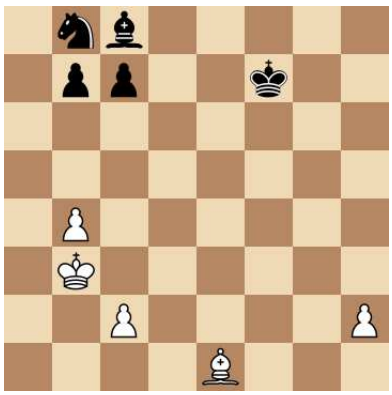
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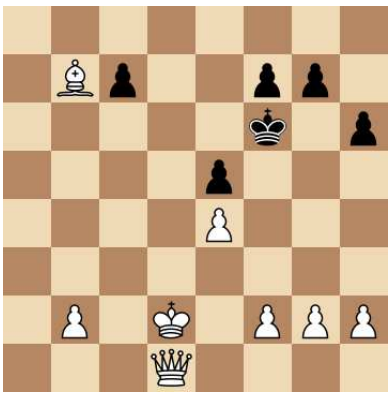
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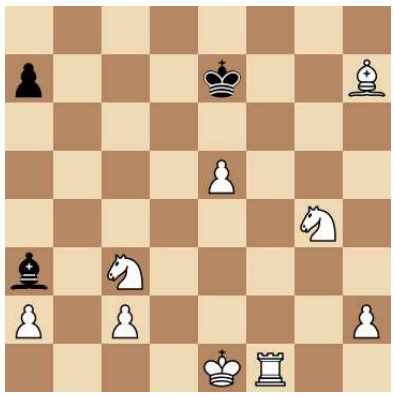
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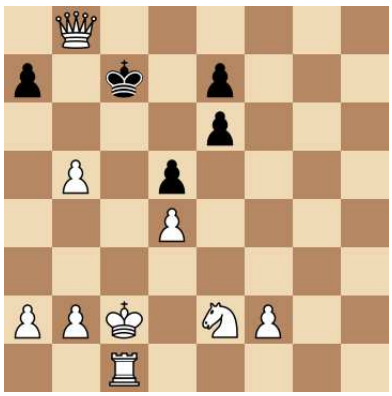
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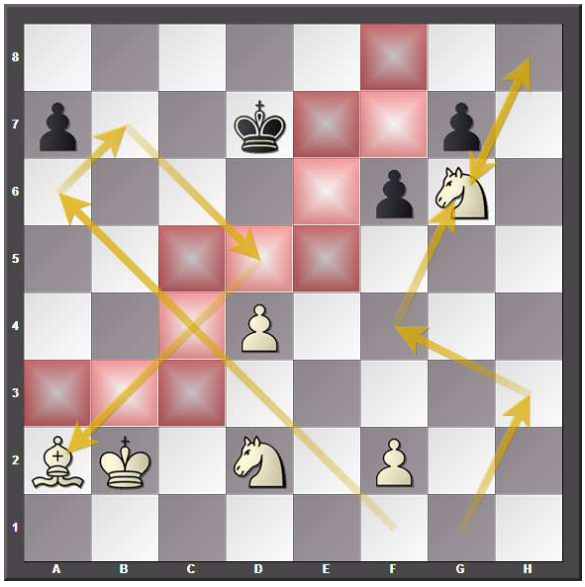
Winning sequences

When we discussed the general strategy in progressive chess our advice was: if a checkmate cannot be found, aim to destroy the opponent's most dangerous pieces whilst maximizing the survival chances of your own. Doing so, it is particularly important to limit the opponent's options to the best extent possible. Sometimes a definitely winning position can be achieved even when there is no checkmate and when the opponent still has plenty of material on the chess board.

One very important skill to be attained is preventing promotions by the opponent. It is also important to know that the more the endgame is approaching, the higher is the value of the knights compared to the bishops, for a very simple reason: the knight can reach the squares of both colors.

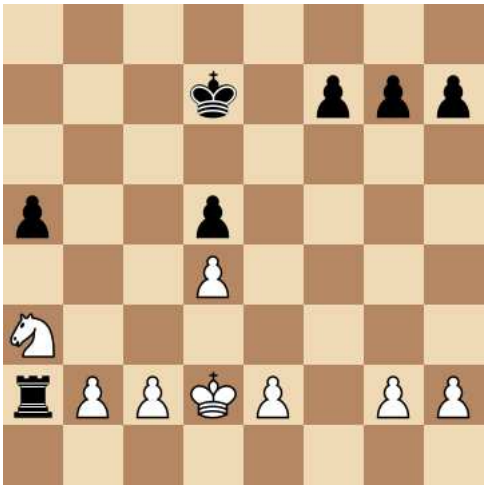


The black king cannot cross the red line, and the black pawns cannot promote. White is winning.

The exercises in this section clearly may have more than one solution. The solutions given, however, are intended to show a very clear path towards a definitely winning position.

The numbers by the diagrams denote the turn number, which is equal to the number of moves at disposal. The signs +– and –+ stand for a decisive advantage for White and a decisive advantage for Black, respectively.

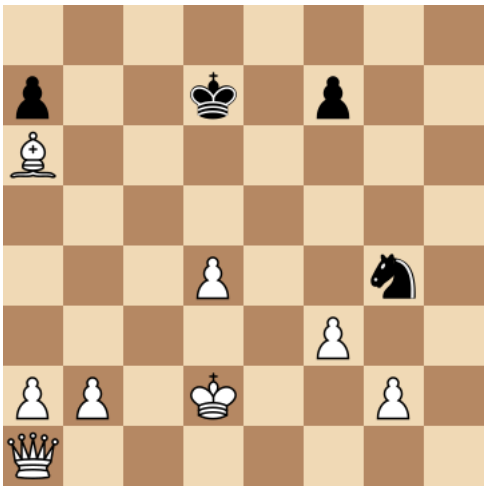
Preventing promotions
Player to move wins



9 White has 9 moves at his disposal. The following sequence ensures a clear win.

9.♘c4 ♘xa5 ♘b3 ♘c1 ♘xa2 ♔e3 ♔f4 ♔g4 b3 +–

Notice that the white king effectively stops the entire wing of pawns from promoting, since a check to the king can only occur at the end of the sequence. It is also important that the black king cannot penetrate to the other side of the board. Black is helpless.



10 In order to win, Black must eliminate White's pieces, prevent promotions, and keep the knight and at least one pawn.

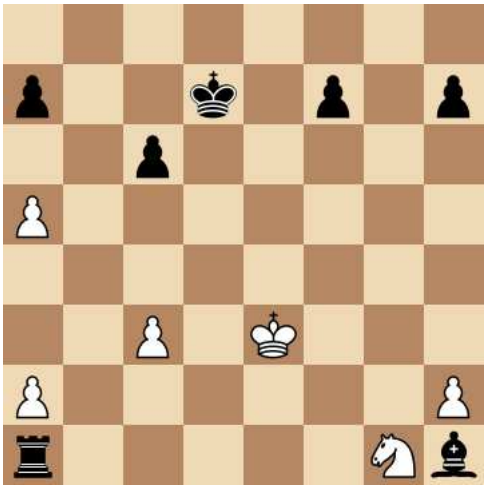
10.♘e3 ♘xg2 ♘e1 ♘c2 ♘xa1 ♘c2 ♘b4 ♘xa6 ♘b8 ♔c7 –+

In the position at the end of the sequence, the black king stops both the b-pawn and the d-pawn from promoting. At the same time, the black knight and the a-pawn will remain on board, ensuring an easy win for Black.

7 There is no immediate checkmate. White's task here is (1) to eliminate the opponent's most dangerous pieces, (2) to prevent promotions of the opponent's pawns, and (3) to secure material advantage.

7.♘a3 d5 d6 dxe7 exf8♕ ♕xg7 ♕xh8 +–

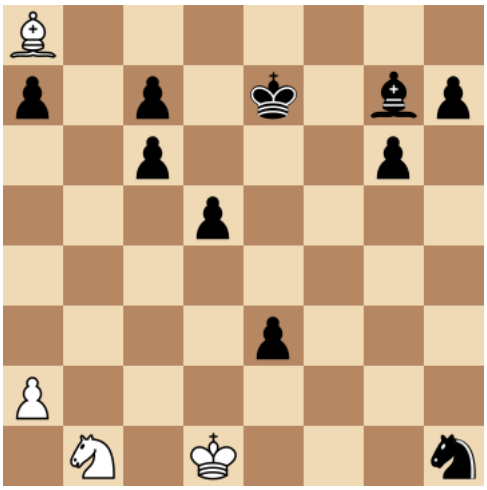
Notice that at the end of the sequence all white pieces are on black squares, thus inaccessible to the black bishop. Black has no promotions, and the pieces are too far apart for the knight to take them all. White is winning.



9 In progressive chess endgames, the knight is much stronger than the bishop. The reason is that it has access to the squares of both colors. In this position, White does not need to waste time to take the bishop.

9.♘f3 ♘d2 ♘b3 ♘xa1 ♘c2 ♘b4 a3 c4 c5 +–

White put all the pieces on black squares, making them safe from the bishop. Also, the black king has been denied access to the queenside. In the following sequence for White, the knight will remove several black pawns and enable promotion to one of the white

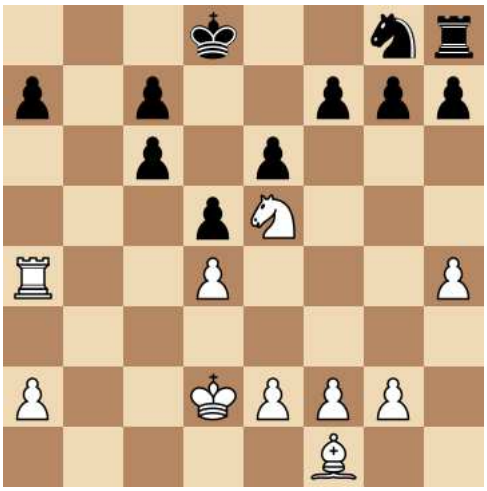


9 Keeping the knight against the bishop while preventing promotions is a good recipe to keep in mind when heading towards an endgame.

9.♗xc6 ♗xd5 ♗xh1 ♗e4 ♗xg6 ♗xh7 ♗c2 ♔e2 ♔xe3 +–

Sometimes the king may trap the opponent's knight in the corner – the knight can only escape with a check at the end of the sequence:

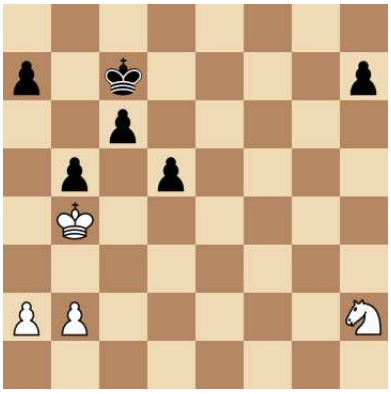
9.♗xc6 ♗xd5 ♗g8 ♗xh7 ♗xg6 ♗c2 ♔e2 ♔xe3 ♔e4 +–



8 When the endgame is approaching, sometimes the king is best placed on the back rank, ensuring that any promotion may happen only with a check at the end of the sequence.

8.f6 fxe5 g5 gxh4 ♘e7 ♘c8 ♘b6 ♘xa4 –+

In the next turn, White may actually promote to a bishop or a knight (avoiding the check). However, there are not enough moves left to eliminate both the black knight and the passed pawn on h4.



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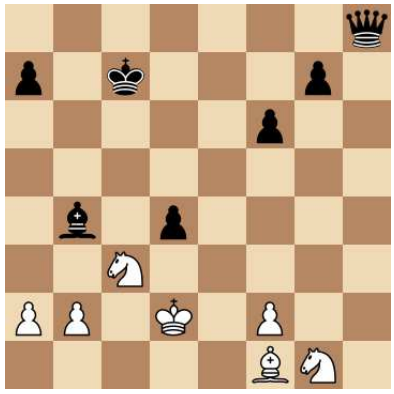

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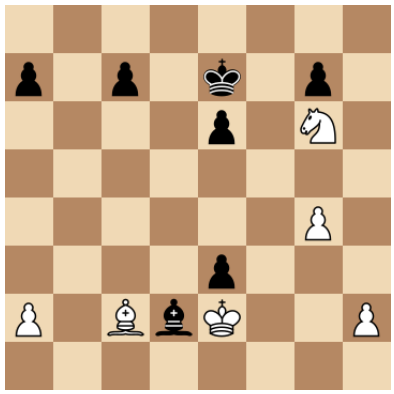

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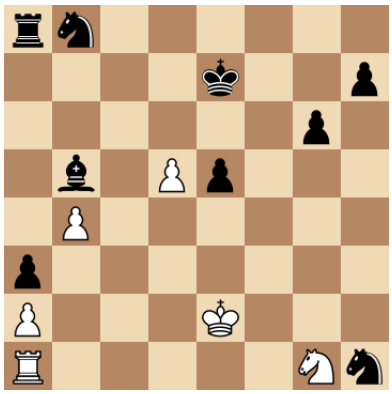

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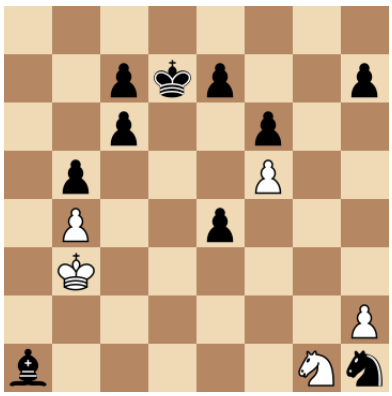


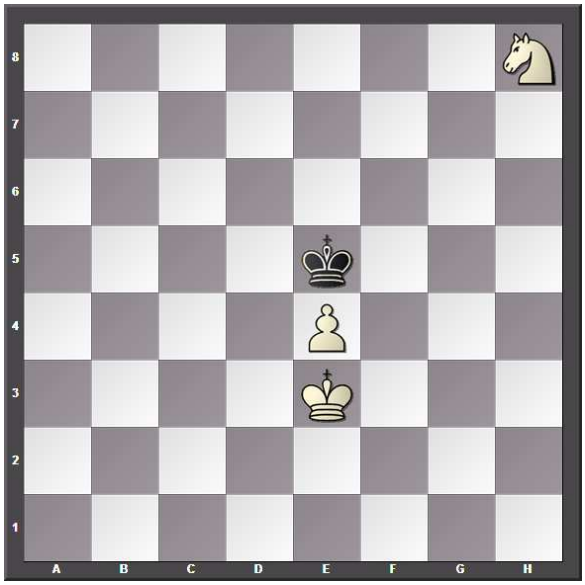
9

Drawing sequences

Draws occur relatively rarely in progressive chess. Nevertheless, it is useful to be acquainted with some concepts and principles that may occasionally save you half a point.

Preventing promotions is a frequently occurring motif also when pursuing the goal of escaping into a drawn endgame. Under-promotions are not uncommon when an endgame is approaching, as it is often desirable to avoid premature checks. Sometimes important pieces can be guarded by the king, exposing itself to a premature check. Basic knowledge of the endgame theory is most welcome, and we will cover it in the last part of the book.

Finally, the path to an escape into a territory where no side can win can often be very narrow.



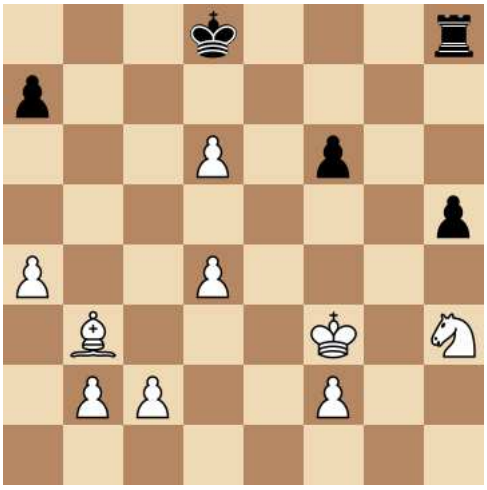
White cannot achieve progress. It is a draw.

There is actually a special rule about draws in progressive chess, however, it is very rarely invoked: the game is a draw if during ten consecutive turns there is neither a capture nor a pawn move, and neither player can show an impending mate. A more common way to draw a game is simply running out of material that is necessary to checkmate the opponent.

As in the previous chapter, the exercises in this section may have more than one solution. The solutions given are intended to show a very clear path towards a definitely drawn position.

The numbers by the diagrams denote the turn number, which is equal to the number of moves at disposal. The sign + stands for a check at the end of a sequence, and = stands for equality.

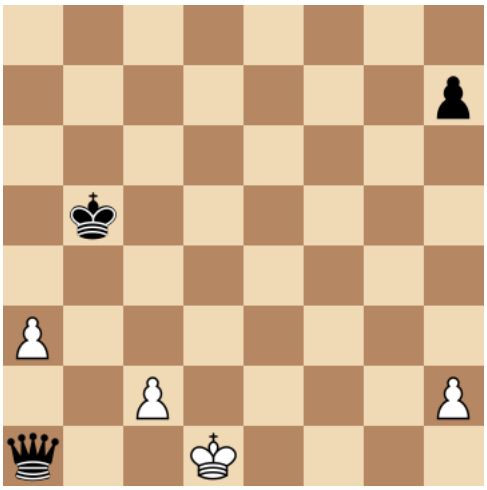
Draw
Player to move draws



10 Black has 10 moves at disposal. By eliminating all opponent's pawns, he liquidates into a drawn endgame.

10.♔d7 ♔xd6 ♖b8 ♖b4 ♖xd4 ♖xa4 ♖a2 ♖xb2 ♖xc2 ♖xf2+ =

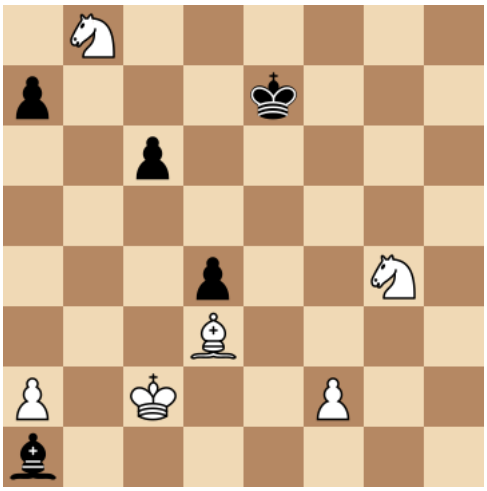
White cannot win the king and a bishop and a knight (K+B+N) versus a lonely king endgame that may emerge on the next turn. See the chapter on the endgame theory for details.



11 Even with a big difference in material, escaping to a drawn endgame may be possible and sometimes quite surprising.

11.♔e2 ♔f3 ♔g4 ♔h5 ♔h6 ♔xh7 ♔g6 h4 h5 h6 h7 =

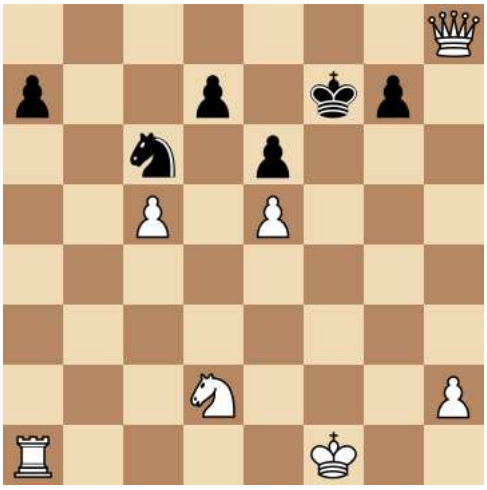
Despite the extra queen against the lonely pawn, Black cannot win. If the queen moves away from the blockading square, White can also promote to a minor piece and the queen cannot hide anywhere on the board. Importantly, the white king cannot reach the blockading square.



10 Particular pieces and pawns can often be defended by the king, exposing it to a premature check in case of a capture.

10.♗c3 ♗xe1 ♗xf2 ♗g3 ♗xb8 c5 c4 ♔d6 ♔c6 cxd3+ =

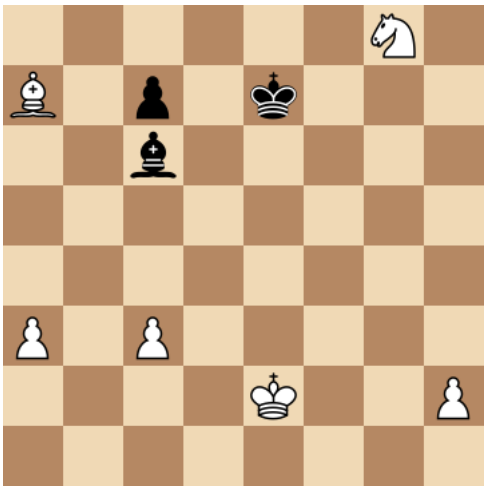
The knight is the stronger piece in the endgame, however, it may take either the pawn on a7 or the bishop (but not both of them) due to a premature check.



10 The long sequence of moves provides an opportunity to capture all dangerous pieces and pawns. In this diagram, we witness an impressive journey by the black knight.

10.♘b4 ♘c2 ♘xa1 ♘b3 ♘xc5 ♘d3 ♘xe5 ♘g6 ♘xh8 ♔g6 =

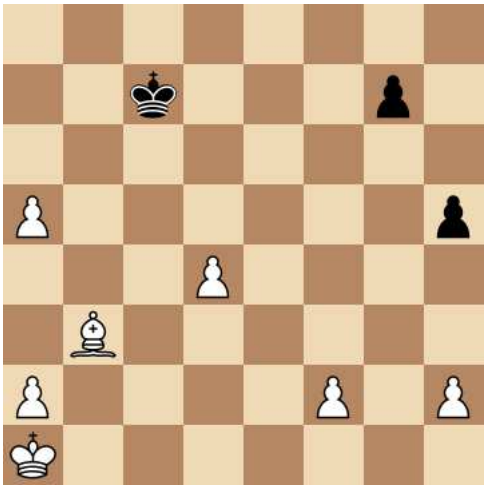
The king moved to g6 at the end of the sequence, both to prevent a promotion of the remaining white pawn and to ensure that the knight can be captured with a check only.



10 On several occasions it is simply impossible to capture all potentially dangerous opponent's pieces. In such cases, it is particularly important to envision what remains on the board and also take into account that the opponent does not have an infinite number of moves either.

10.♔d6 ♗d5 ♗xg8 ♗h7 ♔d5 ♔c4 ♔xc3 ♔b3 ♔xa3 c6 =

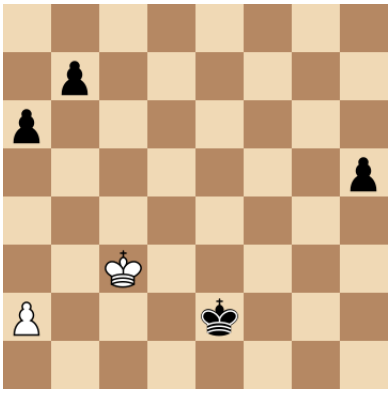
The black pawn on c6 and the bishop on h7 are too far apart for the white king to capture them both, without allowing the black king to stop the h-pawn.



10 At first sight it may seem that Black can simply promote to a queen with his g-pawn. However, this may only happen with a check and thus at the end of the sequence. In that case, White would easily promote with one of his pawns and win the game. The solution is a promotion to a knight!

10.g5 g4 g3 gxf2 f1♘ ♘xh2 ♘f3 ♘xd4 ♘c6 ♘a7 =

Under-promotions are not at all uncommon in progressive chess, as it is often important to avoid premature checks.



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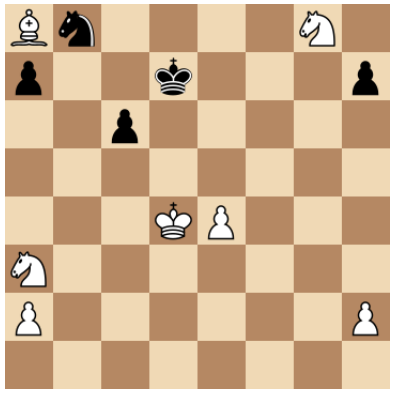

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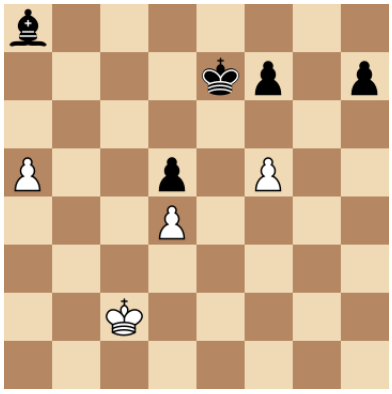

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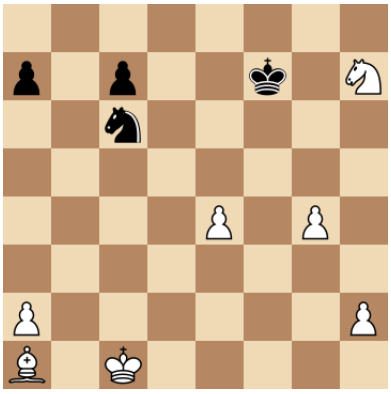

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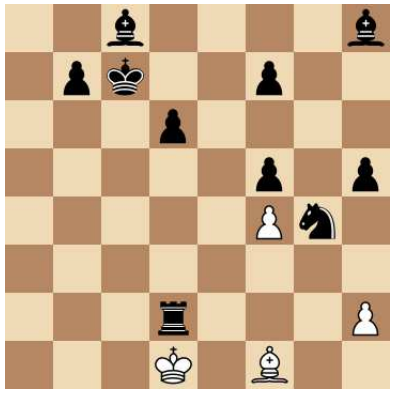

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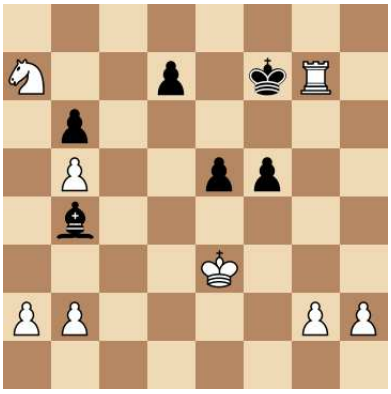

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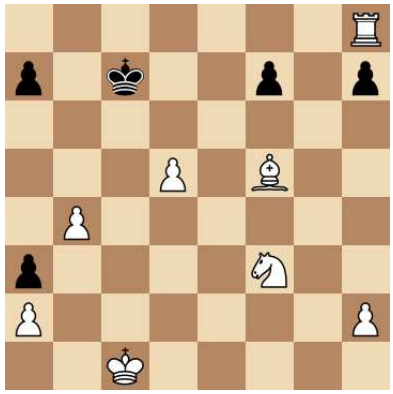

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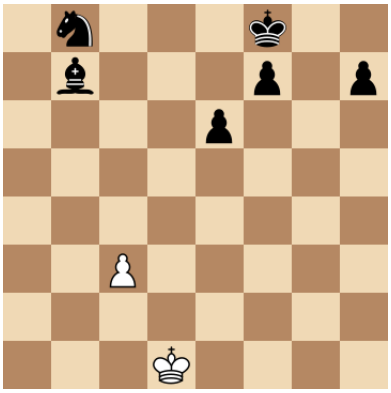

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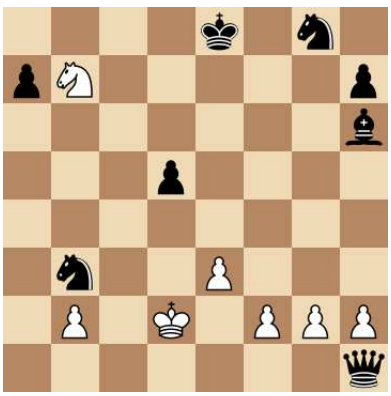

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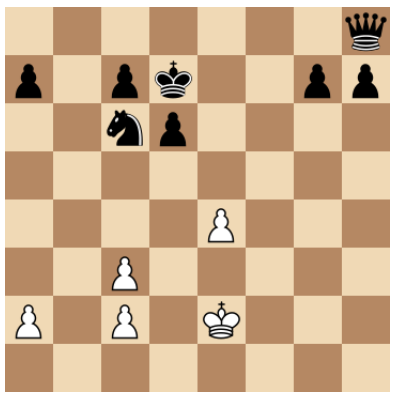

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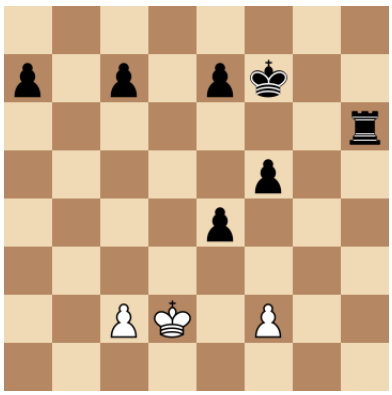


9

Solutions to exercises

The solutions are given for each page in the following order: left -> right, top -> down. Several problems may have more than one solution, and not all will be given here. Also, the order of moves is often not important, and sometimes the pieces may reach their goals via different squares.

The recommended approach is to first try to solve all the problems on a particular page, and to only look at the solutions once it becomes clear that no further progress can be made in a reasonable time. Check the solutions thoroughly, as they are also intended to have value for effective learning.

The solution to the problem given on page 18
includes a promotion to a rook and a double check.[1]

The pieces are represented with the following letters: ♔ → K, ♕ → Q, ♖ → R, ♗ → B, ♘ → N.

We hope that you enjoyed solving progressive chess problems. The next step is to test your newly acquired skills in real games. Good luck!

[1] The problem was composed by Doug Hyatt in the year 1998.

Checkmates in 4

Mix

4.Nf6 Ne4 Qf6 Qxf2#

4.e6 Ne4 Qh4 Qxf2#

4.e5 Bc5 Qf6 Qxf2#

4.f5 Bc5 Qh4 Qxf2#

4.Bg4 Qxd5 Qxd4 Qxd1# or 4.Qxd5 Ne5 Qe6 Nf3#

4.Bg4 Qxd5 Qf3 Qxd1#

4.Bg4 Nc6 Nd4 Nc2#

4.Qd6 Qe6 Nxe5 Nf3#

4.Ne5 Qxd5 Qe6 Nf3#

4.Qxd5 Nb4 Qa5 Nc2#

4.Nb4 c5 Qa5 Nd3#

4.Bb4 Qf6 Qxb2 Qxc1#

Checkmates in 5

Mix 1

5.Kxd1 Re1 Re6 Rxc6 Rxc8#

5.a4 Ra3 Rc3 Rxc6 Re6# or 5.h4 Rh3 Rc3 Rxc6 Re6#

5.a4 Ra3 Rc3 Rxc6 Rc8# or 5.h4 Rh3 Rc3 Rxc6 Rc8#

5.dxe5 e6 e7 Bg5 exd8Q# or 5.exd5 d6 dxc7 Ba5 cxd8Q#

5.exd5 d6 dxc7 c8Q Bf6#

5.Kxd1 a5 a6 axb7 bxc8Q#

5.a4 axb5 b6 bxc7 c8Q# or 5.c4 cxb5 b6 bxc7 c8Q#

5.f5 f6 fxe7 Bg5 exd8Q#

5.cxd5 d6 dxe7 Bg5 exd8Q#

5.Bg5 Rxd1 Rxd4 Rxd5 Rxd8#

5.Kxd1 Bg5 Rc1 Rxc8 Rxd8#

5.e3 Bd3 Bxh7 Bg5 Bg6#

Mix 2

5.e4 Bc4 Nf3 Ne5 Bxf7#

5.Nf3 Ne5 Bd3 Bg6 Bxf7#

5.Bh3 Be6 Nf3 Ne5 Bxf7# or 5.e4 Bc4 Nf3 Ne5 Bxf7#

5.Ne5 Be2 Bh5 Bh4 Bxf7#

5.e5 e6 Bd3 Bg6 Bxf7#

5.Na3 Nc4 Ne5 Bc4 Bxf7#

5.Nxe5 Ng6 e5 e6 exf7#

5.Nf3 Ne5 d4 Nc3 Nb5#

5.Ng5 Nxf7 Nd6 Na4 Nc5#

5.Rxd1 Rd3 Ne4 Re3 Nf6#

5.Kd2 Be2 Nf3 Re1 Bb5#

5.Nf3 Ne5 Nd7 Bb5 Nf6#

Checkmates in 6

Promotions

6.h5 h4 h3 hxg2 gxh1Q Qxf1# or 6.f5 f4 f3 fxg2 gxh1Q Qxf1#

6.e5 e4 e3 exf2 Bh6 f1Q#

6.Kc7 d3 c4 c3 cxb2 bxc1Q#

6.d4 d3 dxc2 Nc6 Nd4 c1Q# or 6.Nf6 Ne4 Nc3 Nc6 Nd4 Nxc2#

6.d5 dxe4 e3 exf2 Bb4 f1Q#

6.b5 b4 b3 bxc2 Bg4 c1Q#

6.c4 cxd3 dxc2 d3 [a6] c1Q#

6.a5 a4 a3 axb2 Rxa2 bxa1Q#

6.Kd7 e3 Ne4 Ng3 e2 exf1Q#

6.b5 b4 b3 bxc2 c1Q Qe3#

6.exd4 d3 dxe2 Bg4 d4 exd1Q#

6.exd4 d3 dxe2 Re8 Nb4 e1Q#

Back Rank

6.h5 Rh6 Rd6 Rxd4 Bf3 Rd1#

6.a5 Ra6 Re6 Rxe4 Bb4 Re1#

6.Nf6 Nxe4 Bg4 Rxf8 Rd8 Rd1#

6.Bd7 Rc8 Rxc2 Be7 Bg5 Rc1#

6.Rb8 Rxb2 Rc2 g6 Bh6 Rc1#

6.Rb8 Rb2 Nf6 Ng4 Ne3 Rc2#

6.Nd4 Rh6 Ra6 Rxa2 Rxa1 Rxc1#

6.Nxe4 Nc3 Rf8 Rf3 Rd3 Rd1#

6.Nd5 Nc3 Rh6 Rd6 Rxd2 Rd1#

6.Nc6 Nxd4 g6 Bh6 Rc8 Rc1#

6.axb6 Nb4 Nxa2 Nxc3 Ne4 Rxa1#

6.Nc6 a6 axb5 Nd4 Rxa2 Rxa1#

Mix

6.Bb4 Nf6 Re8 Re3 [h6] Ng4# or 6.Bb4 Nf6 Rg8 Rg3 [a6] Ne4#

6.h5 Rh6 Re6 Re3 Nf6 Ng4#

6.Kf7 Nc6 Rxd8 Rd4 Nf6 Ng4#

6.Nxf7 Ng5 Ne4 Be7 Bh4 Bxf2# or 6.Kc7 Bh3 Bxg2 Re8 Nxd4 Nf3#

6.Bd6 Ng4 Nxe5 Re8 [h6] Nf3# or 6.Kc7 Bc5 Rd8 Rd2 Rxc2 Bxf2#

6.Rxb8 Bf5 Rc8 e5 Bb4 Bc2#

6.Bd7 axb4 Rxa3 Rd3 Nd4 Nc2#

6.Kd7 Bc2 Bxb1 Be4 Bf3 Bb4#

6.Nc6 Nd4 Nb3 Bb4 Ng4 Nxf2#

6.Kxd8 Nf6 Nh5 Ng3 Re8 Nxh1#

6.Bg4 Nh6 Bd6 Rf8 Kg8 Bg3#

6.e5 dxe4 e3 Bb4 Bd2 Ba6#

Checkmates in 7

Back rank

7.Ne2 Nxd4 Ne6 a4 Ra3 Rd3 Rd8#

7.Bc6 Nc3 Nd5 a4 Ra3 Rb3 Rxb8#

7.Kg2 Nf3 Re1 Rxe7 Nd4 Rc7 Ne6#

7.Kd1 Rxc1 Rxc7 Nd4 Nc6 Rd7 Rd8#

7.Ke2 d4 dxe5 e6 Rd1 Rd7 exf7#

7.d3 Ba3 f4 f5 f6 fxg7 gxf8Q#

7.a4 Ra3 Re3 Re7 Nf3 Ne5 Nxc6#

7.Nxd5 h4 Rh3 Rxe3 Nb6 Rd1 Rxd7#

7.Ke3 Nf3 Ne5 Rxd1 Rxd6 Nxc6 Rd8#

7.Bd3 Nc3 Nd5 Nf3 Ng5 Ne6 Ndc7#

7.Kd1 Nf3 Ng5 Ne6 Bc4 Bd5 Bc6#

7.Ke2 Bc6 Nb5 Nd6 Nf3 Ng5 Ne6#

Mix 1

7.Kd2 d6 e6 Nf3 Ne5 d7 Nf7#

7.Kxd1 Nf3 Nh4 Ng6 Nc5 Nxb7 Bxc6#

7.Bc4 a4 Bf7 Ra3 Rc3 Ne6 Rc7#

7.Ne6 c4 cxd5 dxc6 d5 d6 d7#

7.dxe4 Bc4 Rh3 Rd3 Rd8 Bxg8 Bg5#

7.dxc3 Be3 Rxd1 Rd6 f3 g3 Bf4#

7.Bf4 Bxe5 Kd2 Re1 Bxb8 Re8 Bb5#

7.Kd1 g4 a3 axb4 Rxa7 Rb7 Bg2#

7.Ke3 b4 Ba3 Rc1 Rc7 Rxe7 b5#

7.Ke2 g4 gxh5 Bh3 h6 hxg7 gxf8Q#

7.g4 g5 g6 gxf7 f8Q d6 Bh3#

7.Re1 b4 b5 b6 bxa7 axb8Q Bb5#

Mix 2

7.h5 h6 hxg7 g8Q Qf8 Bd3 Bxf5#

7.Bd1 Nc3 Ne4 Rxc1 Rxc8 Bh5 Re8#

7.Nc3 a4 Nxe4 Nc5 Ra3 Re3 Re6#

7.Na3 Nc4 Nd6 Ba3 Rb1 Rxb8 Re8#

7.b4 O-O-O Rxd5 Bc4 Rhd1 Rd7 R1d6#

7.Na3 Nc4 Nd6 Ba3 exd5 Bc6 Nxb7#

7.Ba6 Re1 Bxb7 Re6 Nc3 Ne4 Nc5#

7.Bb5 h5 h6 hxg7 gxh8Q Rh6 Qe8#

7.Ke3 Bg7 Nc3 Nxd5 Rd1 dxe5 Nxc7#

7.e5 Bc5 e6 e7 e8Q Na3 Nxb5#

7.Ke3 Nf3 Nxe5 Rd1 Rxd7 Nd5 Nc7#

7.e5 Nxc3 Nxb5 Rc1 Rxc8 Nd6 Re8#

Checkmates in 8

Promotions

8.Ke6 h5 h4 h3 hxg2 Rh1 Re1 g1Q#

8.bxc6 exd4 axb4 b3 bxc2 Rb8 Rb1 cxd1Q#

8.c5 c4 c3 e5 e4 e3 exf2 f1Q#

8.Bg4 h5 h4 hxg3 Nf6 Nxe4 g2 gxh1Q#

8.e4 Ne5 Rxh2 Rxh1 e3 Nc4 exf2 f1Q#

8.Nb4 Be4 b5 Na2 b4 b3 bxc2 c1Q#

8.Ba6 d5 dxe4 exd3 e4 Bb2 dxc2 c1Q#

8.exd4 Bxe4 Na6 Nb4 d3 dxe2 Nxc2 e1Q#

8.Ra3 e4 Bh6 Rf3 Rf1 e3 exd2 d1Q#

8.Bxb4 h4 h3 hxg2 gxf1Q Rxh2 Rxh1 Qb1#

8.b5 b4 b3 b2 bxa1Q Rb8 Rb1 Qd4#

8.c4 c3 cxb2 bxa1Q Qe5 d4 d3 Qxe2#

Mix 1

8.Nc6 Nd4 g5 g4 g3 g2 gxf1Q Nf3#

8.a5 a4 a3 Ra4 Rxe4 axb2 bxc1Q Qc4#

8.h5 h4 h3 hxg2 Rxh2 Rh1 g1Q Qe3#

8.Ke8 Ne3 d4 d3 dxc2 cxb1Q Qd3 Qf1#

8.Nxg4 h5 h4 h3 hxg2 gxh1Q Nxh2 Qf1#

8.f5 Ne2 c4 c3 cxd2 d1Q Qd4 Qe4#

8.Ke6 Kf5 Ke4 Kf3 Bd4 e3 e2 Bxf2#

8.Kd6 e4 e3 d4 d3 d2 Be4 Bxc2#

8.e6 Ba3 c5 cxd4 Nf6 Rc8 d3 Rc1#

8.c5 cxd4 dxc3 b5 b4 b3 b2 b1Q#

8.Kc7 Bg4 f5 f4 Rb8 Rxb2 Rb1 e3#

8.Bh3 Rhc8 Rc1 Ra6 Re6 Rxe5 Rxa1 Rxf1#

Mix 2

8.Bb5 Rh6 Rf6 Rf4 Nf6 Rc8 Rxc2 Nxd5#

8.Re8 Nf5 Na6 Nb4 d3 Nd4 dxc2 Nb3#

8.e5 b6 Ba6 Rc8 Rxc2 Rf2 Bf8 Bc5#

8.Nxe5 b5 b4 b3 bxc2 c1Q Nd3 Nf4#

8.g5 g4 g3 gxf2 f1Q Rg8 Rg3 Bh6#

8.Nd5 e4 Kd7 Rc8 Bd4 Bxf2 Ne3 Rc2#

8.Nxe5 Nd3 Ne1 Bg7 Re8 Ng4 Nxf2 Bh6#

8.Nc6 a6 axb5 Nf6 Nd5 Nc3 e4 Nxd4#

8.Kd6 Ke5 f5 fxe4 Rg8 Rxg2 Rxf2 Bd4#

8.Kf7 Bg4 Nd7 Ne5 Rd8 Rxd4 Rd2 Nc4#

8.Bxc6 Nf6 Ne4 Rb8 Rxb2 Rb3 Ba4 Rb1#

8.h5 h4 h3 hxg2 g1R Rh3 Rhg3 R3g2#

Checkmates in 9

Mix

9.Kc3 Kb4 Kc5 Kd6 b4 b5 b6 b7 b8R#

9.Kd3 Kc4 Kc5 Kc6 Nc3 Nd5 f4 g4 Ng5#

9.dxc6 d5 Kc3 Kb4 Kc5 Nc2 Nd4 Bb7 Ne6#

9.Ke3 Kf4 h4 h5 h6 hxg7 gxf8Q c4 Bxd5#

9.f4 fxe5 g4 gxh5 h6 h7 h8Q Bc6 Qf6#

9.Ke2 c4 c5 cxd6 b3 Ba3 Rc1 dxc7 c8Q#

9.cxd3 a4 a5 a6 axb7 b8Q Ra6 Qg8 Re6#

9.Ke3 Rf1 Rf6 Rd6 b4 b5 b6 bxc7 cxd8Q#

9.Ng6 Bb7 gxf3 f4 f5 f6 f7 f8Q Qe7#

9.Ne2 Nxd4 Rg1 Rg8 Na3 Nab5 Nxa7 Nac6 Rd8

9.Nf3 Ne5 f4 f5 fxe6 Ng6 Bb5 e7 Bxc6#

9.Ne2 Be5 h3 cxd3 Rc1 Rc6 Kc1 Ng3 Nxf3#

Italian checkmates

Mix 1

6.Qb6 Qxd4 dxe4 e3 Qxb2 Qxc1#

6.Bb4 Re8 exd4 Rxe4 Ke7 Re1#

6.Bb4 Nf6 Re8 Rxe4 Ke7 Re1#

7.Nc3 Bc6 Re1 Rxe4 Ke2 Nd5 Re8#

7.Ke2 Kf3 Kg4 Nf3 Ng5 Ne6 Nc5#

7.Kf1 Bc6 f4 fxe5 e6 exf7 f8Q#

7.Kd3 e5 Nxd4 e6 exd7 Ne6 d8Q#

7.f4 fxe5 exf6 Kf3 Kg4 Kh5 Ng5#

8.Nb4 e4 e3 Ke7 Bg7 Bxc3 e2 e1R#

8.Ke6 d4 dxe3 exf2 Kf5 c6 cxb5 f1Q#

8.d4 d3 Nf6 Ne4 dxc2 Kc7 Ng3 c1Q#

8.Ne7 Nd5 Nxb4 Nxd3 Kc6 Kc5 Kc4 Nc1#

Mix2

8.Kd6 b5 b4 b3 bxc2 Kc6 Ng3 c1Q#

8.Bg4 Bxf2 Nc6 Nd4 Kd6 Kc5 Kxc4 Nb3#

9.Kd3 Kc4 Kb5 Kb6 e4 f4 f5 [b4] e5#

9.Ke1 Bf4 Nc3 Nxd5 Nxc7 d5 d6 dxe7 e8Q#

9.Kd5 Kd6 Kd7 Ke8 Kf8 Kxg8 Kh8 Nf2 Ng4#

9.Kd2 Kd3 Kxe4 Kd5 Rab1 Rxb7 Kc6 Kxc7 Rxb8#

9.b4 b5 b6 bxc7 Kd3 Kc4 Kb5 Ka5 c8Q#

9.Kd2 c3 cxd4 dxc5 c6 c7 Kc3 Kb4 c8N#

10.b5 Na6 Nxb4 Ke6 Kd5 Kc5 Nd3 b4 Kb5 Be6#

10.g5 g4 g3 gxf2 f1Q c5 c4 Ke7 Kd6 Qf4#

10.Bc1 Be3 Kd7 Kc6 Kc5 Kb4 Kxc3 Kb2 Kc1 Bd2#

10.Kxb8 Kc7 e5 exd4 a5 a4 a3 axb2 b1R Rb2#

Preventing promotions

Mix

11.Kc3 Nf3 Ng5 Nxh7 Nf8 Nd7 Nb8 Nxc6 Nxa7 Nc6 Nb4 **+–**

9.Nf3 Ng5 Nf7 Nxh8 Ng6 Kd3 Kxd4 Kc4 Kxb4 **+–**

8.Ke6 Rd8 Rd1 Rxh1 Ba3 Bxb2 Bxc3 Bxe5 **–+**

8.Kf6 Kg5 Ne7 Nxc6 Nxd4 Nc2 Nxe3 Nxd1 **–+**

10.Kf6 e5 e4 Kxg6 Kg5 Kxg4 Kh3 Kxh2 Kg2 a5 **–+**

9.Kf3 Nh3 Rxh1 Rc1 Rc5 Rxb5 Rxb8 Rxa8 Ra5 **+–**

7.Bc4 Bxg8 Bxh7 Bxf5 Bxe4 Bxb7 Bxa8 **+–**

8.Nh6 Rxh8 Rg8 Rxg2 Rg1 Rxh1 Ke6 Nb8 **–+**

9.Bc6 Bxb7 Bxd5 Bxf7 Bg8 Bxh7 Be4 g3 Bxh1 **+–**

8.Ba3 Ke7 Rb8 Rxb1 Rxc1 Rxh1 Rxa1 Kf8 **–+**

9.Nb3 Nd4 Nxc6 Nxb8 Na6 h3 Ke2 Ke3 Ke4 **+–**

9.Nf3 Nd4 Nc2 Nxa1 Kc3 Kd4 Kxe4 Nb3 Nc5 **+–**

Draw

Mix

11.Kd4 Kc5 Kb6 Kxb7 Kxa6 Kb5 Kc5 Kd4 Ke4 Kf4 Kg3 =

10.Na6 Nb4 Nxa2 Nc3 Nxe4 Nf6 Nxg8 Nh6 Ng4 Nxh2 =

11.Kd3 Ke3 Kf4 Kg5 Kh6 Kxh7 Kh6 Kg5 Kf4 Ke5 f6+ =

10.Ne5 Nxg4 Nxh2 Nf3 Ng5 Nxh7 Nf6 Nxe4 Nc3 Nxa2+ =

9.Kxd2 Ba6 Bxb7 Bxc8 Bxf5 Bxg4 Bxh5 Bxf7 Kd3 =

10.Kxg7 Bd6 Bb8 Bxa7 Bb8 Bd6 Ba3 Bxb2 Bc3 Ba5 =

10.Nd5 Nb4 Nxc2 Ne3 Nxg2 Nxh4 Nf3 Nxg1 Bxh1 Ba8 =

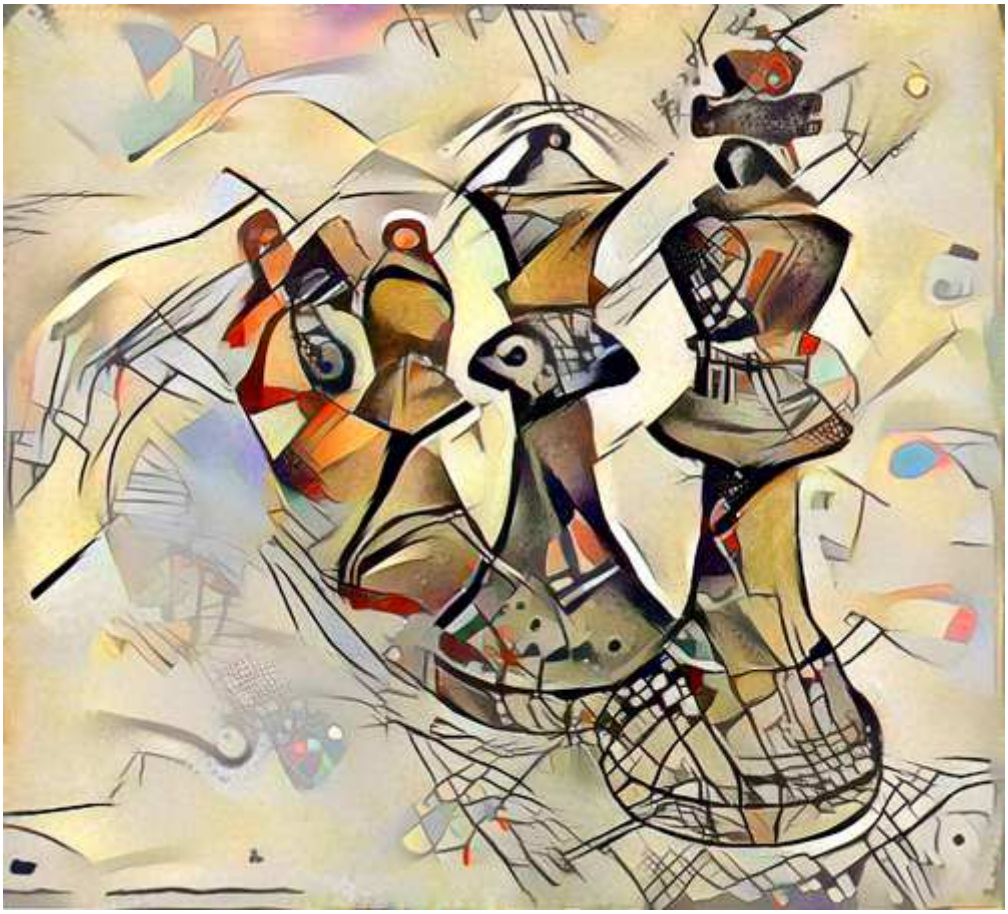
10.a5 axb4 b3 bxa2 a1B Bxh8 Be5 Bxh2 Kd6 Kxd5 =

11.c4 c5 c6 c7 c8B Bxb7 Be4 Bxh7 Bg8 Bxf7 Bxe6 =

9.Kc3 g4 g5 g6 gxh7 hxg8B Bxd5 Bxh1 Kxb3 =

9.e5 exd6 dxc7 c8R Rxc6 Rc8 Rxh8 Rxh7 Rxg7+ =

9.f3 fxe4 exf5 f6 fxe7 e8R Re6 Rxh6 Ra6 =

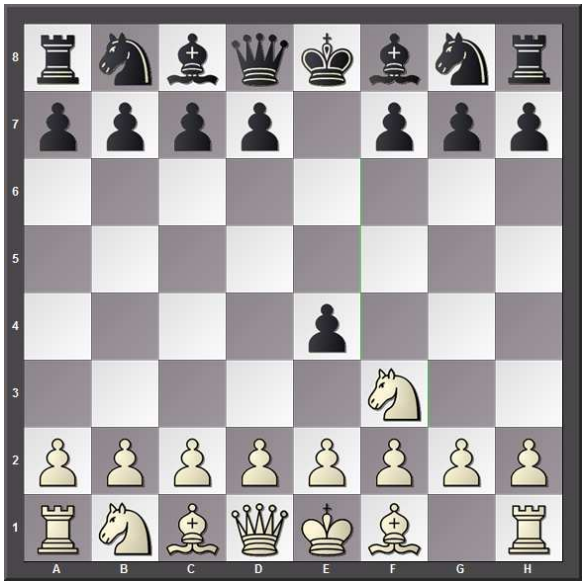


Part 3
Theory and practice

Opening variations

With all kinds of checkmates looming in the air from almost the beginning of the game, the choice of opening variations in progressive chess is far more restrained compared to ordinary chess.

Discovering intricacies of progressive chess openings can however bring much fun. In order not to spoil the fun, only the most frequent opening moves by White and Black will be given here. The first moves 1.e4 and 1.d4 are predominant, so we will solely look at the most popular responses to these two alternatives. Black's answers to each of these two moves are given in the order of how frequently they tend to occur in tournament games.



Who has the better chances in this position?

In order to increase the diversity of progressive chess games, the *Chess960* (also known as *Fischer Random Chess*) initial setup is recommended. It employs the same board and pieces as standard chess; however, the starting position of the pieces on the players' home ranks is randomized in such a way that the dynamic nature of the game is preserved by retaining bishops of opposite colors for each player and the right to castle for both sides. The result is 960 unique possible starting positions. Since it is too difficult to memorize so many opening systems, both players must devise original strategies from the first move on and cannot use well-established opening patterns.

A very interesting question is: who has the advantage in progressive chess, White or Black? This is not as clear as in ordinary chess. *The Classified Encyclopedia of Chess Variants* claims that masters have disagreed on this question. Practice shows that the game is approximately balanced.

Progressive chess openings

1.e4 2.d5 ♘c6

1.e4 2.d5 d4

1.e4 2.d5 e5

1.e4 2.e5 f6

1.e4 2.e5 ♕e7

1.e4 2.e5 ♘h6

1.e4 2.e6 ♘f6

1.e4 2.d5 dxe4

1.d4 2.d5 ♘c6

1.d4 2.c5 cxd4

1.d4 2.d6 ♘f6

1.d4 2.d5 c6

1.d4 2.e5 exd4

1.d4 2.f5 ♘f6

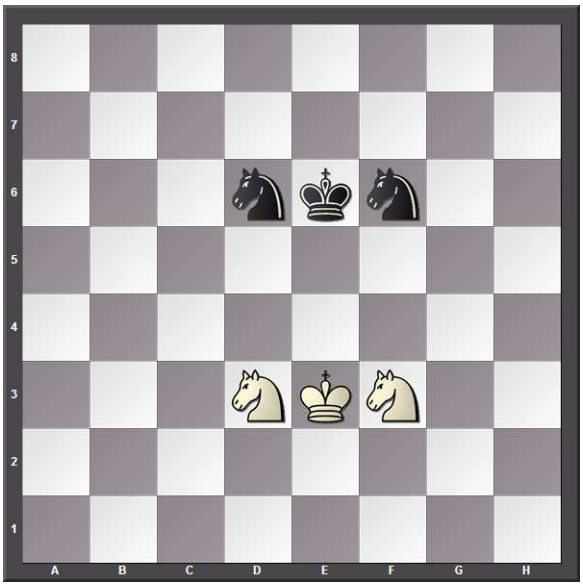
1.d4 2.c5 d5

1.d4 2.d5 h5

Endgame theory

In progressive chess endgames, we assume that a player's turns have become sufficiently long to execute sequences of arbitrary length. Not many games reach the ending, so studying progressive chess endgames is not nearly as important as in standard chess.

It is important to note that White only has odd-length sequences at his disposal, while Black's sequences are always of even length. As a non-trivial consequence, a king and two knights (K+2N) versus a lonely king are wins for Black but not for White. The same applies for a king and a bishop and a knight (K+B+N) versus a lonely king. Many positions that are easily winning in standard chess are drawn in progressive chess. A king and a rook (K+R) versus a lonely king is one such example.

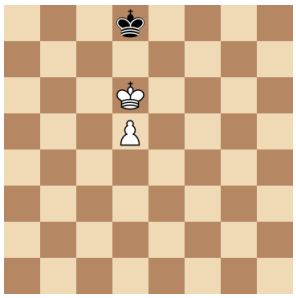


Black to move wins. White to move only draws.

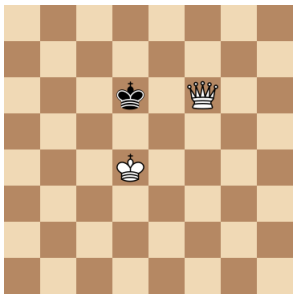
In many practical endgames the main task is to capture the most relevant opponent's pieces and prevent promotions, which we already covered in the training materials. Here we will focus on the elementary endgames.

Elementary endgames in progressive chess

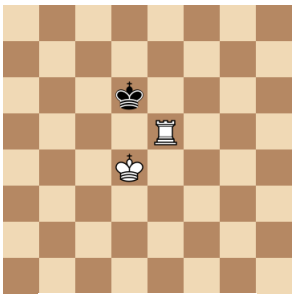
The four diagrams below represent the most basic elementary endgames in progressive chess.



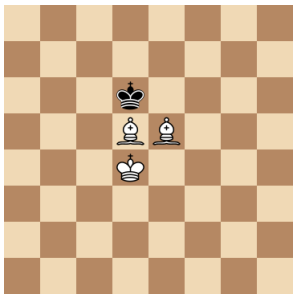
Draw.



White wins.

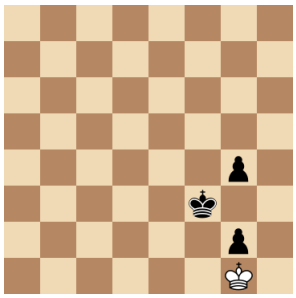


Draw.

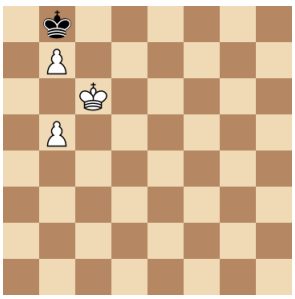


White wins.

The K+P vs. K endgame is drawn if the opponent's king is on a square in front of the pawn. It is not possible to force the king to leave that square, so the side with the pawn cannot make progress. The K+Q vs. K endgame is an easy win, since the queen is untouchable. The K+R vs. K endgame is a win only if the defending king is already on the edge. The problem is that the check can only be delivered on the last move of the sequence and such a check leaves an undefended rook open to capture. The K+2B vs. K endgame is a win, since the bishops comfortably cover both square colors and easily restrict the opponent's king to fewer and fewer squares until checkmate is delivered.



Black wins.

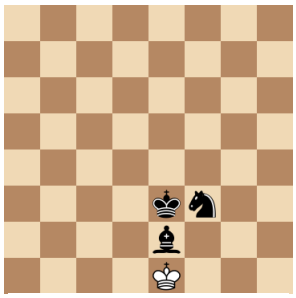


Draw.

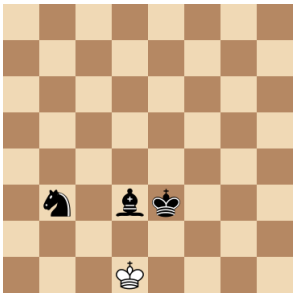
White always has odd-length sequences at his disposal, while Black's sequences are always of even length. This makes an important difference. In both diagrams above, the lonely king only has two squares available. However, in such cases the white king is forced to abandon its current square, while the black king will always return to it at the end of his sequence.

In the left diagram above, regardless of the length of the sequence, White to move will have to abandon the g1 square. In the right diagram White cannot make progress, as the black king will always return to the b8 square at the end, again regardless of the sequence length. The length of the sequence thus does not play any role in such endgames and we can safely assume that a player's turns have become long enough to execute sequences of arbitrary length. However, we always have to take into account whether the sequence length is odd (for white pieces) or even (for black pieces). This will be particularly important in the following two elementary endgames.

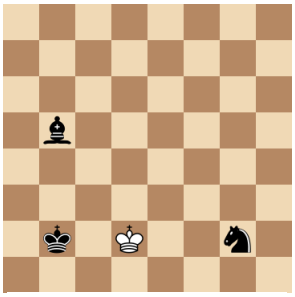
A king and a bishop and a knight (K+B+N) versus a lonely king endgame is won only if Black is the stronger side. The four diagrams below represent some key positions in this endgame.



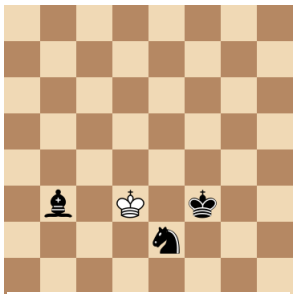
Checkmate occurs on the first rank.



White is restricted to two squares only.



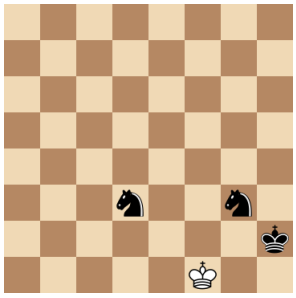
White has to leave the second rank.



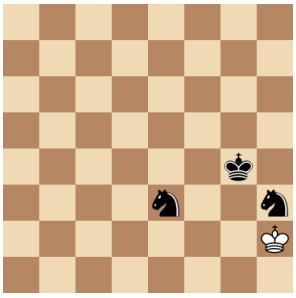
White has to leave the third rank.[1]

In the elementary endgames, due to the sequences of an arbitrary length, we can put pieces on whichever squares we want. It is thus important to find the patterns that will bring us to the final goal. The first diagram shows the checkmating pattern. Checkmate always occurs on the edge of the board. In the other three diagrams the winning side always restricted the area available to the white king, forcing it to leave the current square. Notice that this would be impossible if it was Black who had the lonely king. His king would in such cases simply return to the initial square.

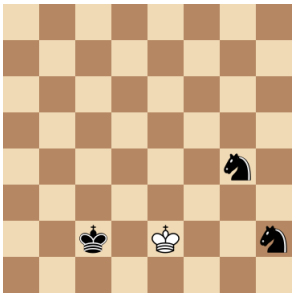
Finally, let us take a look at a king and two knights (K+2N) versus a lonely king endgame, which is also won only if Black is the stronger side. These are some key positions in this endgame.



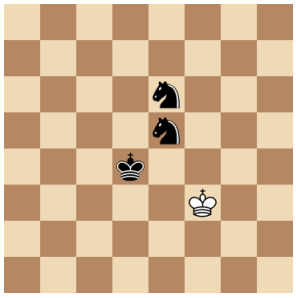
Checkmate occurs on the first rank.



White is restricted to two squares only.



White has to leave the second rank.



White has to leave the third rank.[1]

Checkmate always occurs on the edge of the board. It may also occur in the corner of the board, however, checkmate is not possible when the king is on the edge and immediately next to the corner square. In this case the stronger side limits the king to two squares only (see the second diagram above). Similarly, in the third diagram the white king only has two available squares and is forced to move to the edge of the board. Again, it would be impossible to make progress if Black had the lonely king. His king would in such cases always return to the initial square. In the fourth diagram, the white king is in check and cannot reach any square on the third rank anymore. The two knights cover surprisingly many squares, even forbidding the lonely king to travel around the board and attack the knights.

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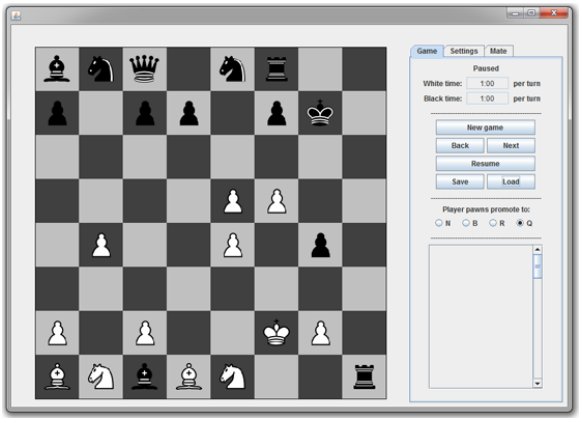
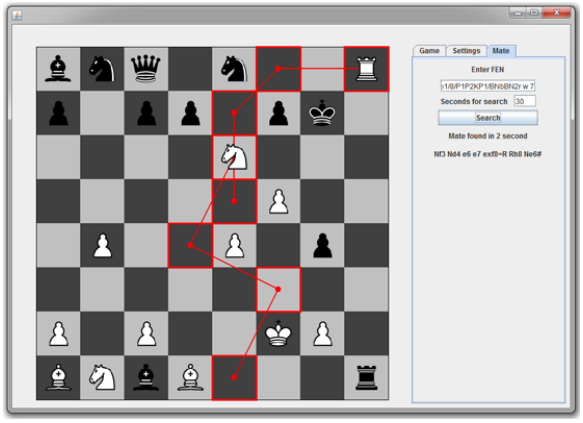
[1] In this context, the third rank actually means squares that are two king's moves away from the edge of the board.

Online resources

The computer program *Progressive Chess* is freely available on https://ailab.si/progressive-chess/. It enables the following features and functionalities:

- playing against the computer,
- playing or analyzing games from any given progressive chess position,
- searching for checkmates,
- loading, saving, and viewing games, etc.





The above website also contains a large collection of tournament games in PGN format.

There is also a freely available Android application *Progressive Chess* available on Google Play. The desktop version is stronger and offers more functionalities. However, the Android version can be very handy and also offers three difficulty levels.

An excellent video tutorial is available on YouTube. It consists of the following chapters:

Progressive Chess 1: Introduction	1, 2
Progressive Chess 2: Ghosts	1
Progressive Chess 3: Material/Knockouts	1, 2, 3
Progressive Chess 4: Disruption	1, 2
Progressive Chess 5: Defense	1, 2, 3, 4
Progressive Chess 6: Endgame Theory	1, 2
Progressive Chess 7: Theory (1.d4)	1, 2, 3, 4
Progressive Chess 8: Theory (1.e4)	1, 2, 3
Progressive Chess 9: Other Variants	1, 2

The computer program and the video tutorial provide a great opportunity to improve your play.

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