

# Square concepts

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**Abstract** The following text contains some basic chess concepts and advices, presented in the form of tasks. It was prepared for the *Distractions* column of the T<sub>E</sub>Xonline journal PracT<sub>E</sub>X, using the program ChessTask, and is aimed at hobby players of any strength. The given positions are all taken from my own games for the chess club SK Soltau, so they are no constructed examples but actually happened. While the tasks themselves are kept rather terse, I try to elaborate things a bit further when I unveil the correct moves at the end of the article. So even if you did not find the solution in first place, you can hopefully learn from the additional information.

Enjoy!

## Square concepts

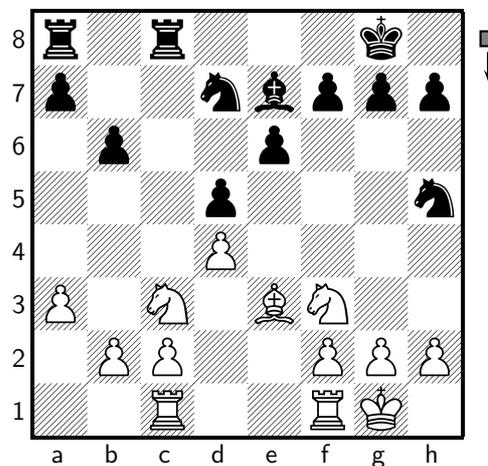
### Trivial tactics

At the beginner level, chess is all about tactics. Among the first things for a newcomer to learn are,

1. The rules (of course),
2. the values of the single pieces relative to each other and
3. how to compute series of captures.

It is vital to calculate capture variants up to the end to ensure that the pieces still even afterwards. If an unbalanced stock of material results from a tactical combination this means one side has gained an advantage. And if you are the one that is behind, it most often means that you are about to lose.

### Task A



So let us start with a simple tactical problem, for warming up a little. Above you see a game which is still in the opening phase. Both players have developed nicely and positioned their pieces such that each controls a lot of squares—always a good thing to do, by the way. Whites last move was ♖a1–c1. How can Black win a pawn immediately?

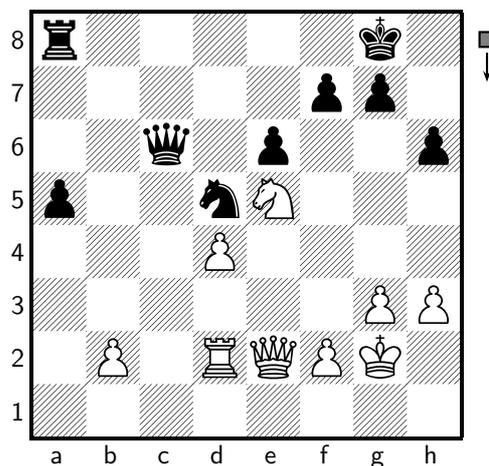
## Time is the enemy

If you are a hobby player, you might never have played with a chess clock yet. These little gadgets really add another level of complexity to your fight against an opponent. The additional dimension of time is always ready to break your neck in a complicated situation: you either spend all your time, which means you lose immediately, or you play too quickly and make a severe fault.

The latter happens a lot, even if no clock is involved and you enjoy a nice game of chess against a friend. So here is my advice for this section beforehand: Take your time, even if you are directly attacked by your opponent and think that you know exactly what to do. If you are in check and see only one escape, try to look over the whole board and fathom your possibilities. Often a second alternative shows up that gives you more counterplay, or even the initiative sometimes.

In the next two games that are presented, I fail to see a better continuation because I do not have enough time. In both situations, only a few seconds are left to make the 40th move for the first time control. I was forced to draw quickly... you are not, so try to sit back and think twice!

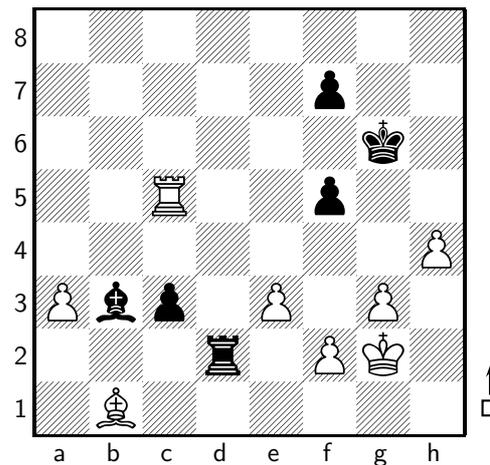
### Task B



Whites last move was  $\text{Nf3-e5}$  which is a blunder. It looks as if the black queen has to move because it is under attack by the knight. I never fail to tell my chess kids how important it is to care about threatened pieces first and retreat them in such a situation, instead of simply "threatening back". This, combined with the ticking clock, led me to a quick  $\text{Qd6}$  and I passed the time control. How could I

have ended the game in two moves?

### Task C



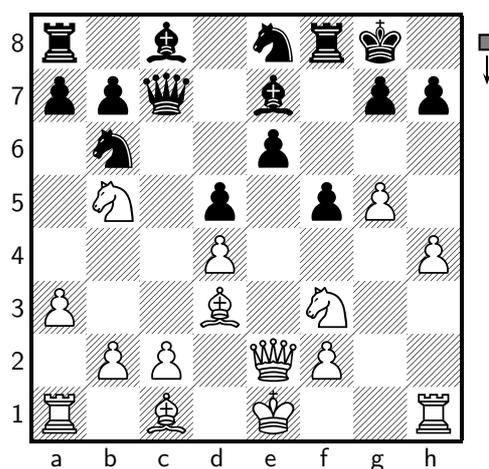
In this position I am two pawns ahead, but Black threatens to promote his advanced pawn on c3 soon. His last move was  $\text{♙e6-b3}$ . I quickly play the tempting  $\text{♜xc3}$  but with some more time on my clock I might have noticed that there is a better move. Try to find the combination that leads to a, more or less, clear win for White.

### Plan your escape

When you try to come up with your next move, always think about your retreat. Well, if you plan to sacrifice your figure or want to exchange it anyway, you certainly do not have to care. But if you spot an alluring square deep within the enemy's territory, ask yourself: "What happens if I get attacked? Is there a safe way back?"

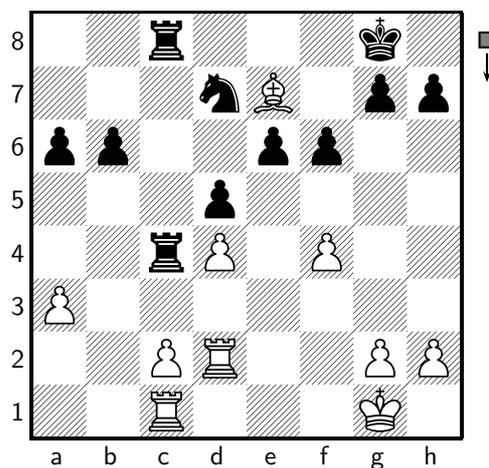
The following two tasks demonstrate how not to do it...

### Task D



In this diagram my, admittedly questionable, idea was to get the black ♖b6 to d6 via c4. For this to work, I had already placed my queen on c7. After White's last move ♘c3–b5 I should have changed my mind and retreated. Instead, I stuck to my plan and opted for the weak ♙c6. What is now the best move for White?

### Task E

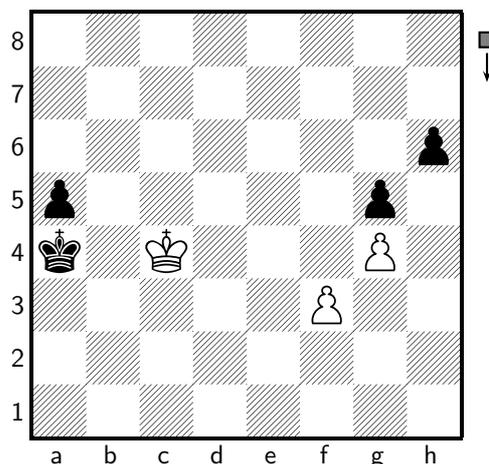


This time I am on the lucky side again, having the black pieces. White's last move was f2–f4. Why is this a blunder?

## Keep your opponent busy

The two last tasks are definitely for the more advanced players. They do not deal with concrete moves and captures but share a basic theme. In this first part I will lay out the concept itself directly, while showing how it can be employed in a more complicated situation afterwards. Hence, I suggest that you ponder over task F a bit, then take a peek into the solution before progressing to part two of this section.

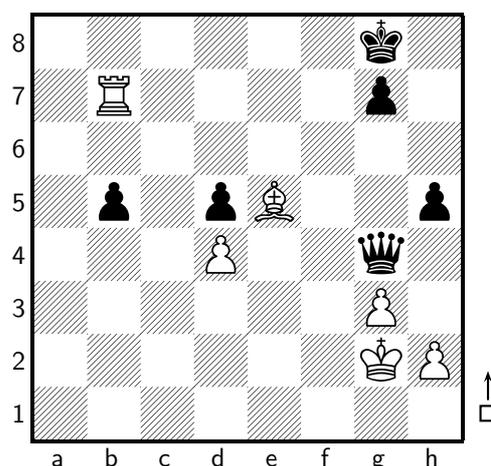
### Task F



The pawns on the right side are blocked, they can not move forward without getting lost. Black is a pawn ahead, but it looks as if he can not do very much to prevent a draw. On ♔a3, White plays ♕c3 and after another ♕a4 the obvious ♕c4 follows. White encircles the black king in front of the pawn, such that no advance is possible.

So how can you get the pawn through and win the game? Try to come up with a plan for this, which does not mean that you should calculate endless variations. Instead, imagine what the position should look like to give you a clear advantage.

## Task G



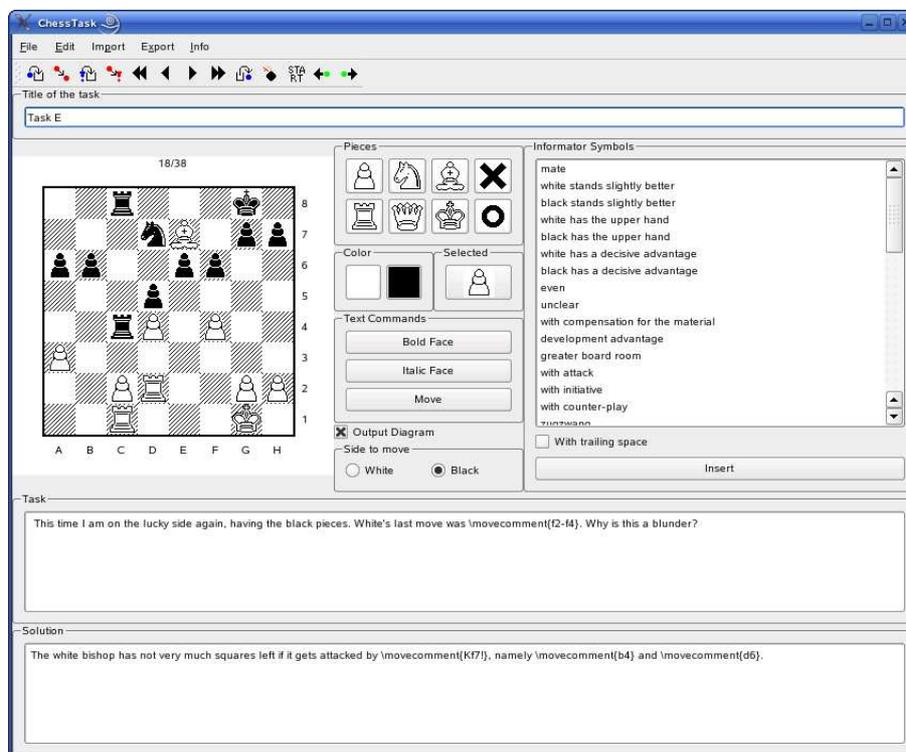
This asymmetric position—rook and bishop against a single queen—needs even more foresight than the previous one. Try to visualize the board with only the pawns and kings remaining. Is this a draw or can one side win this fight? What are the main ideas to follow and how does the basic concept of “keeping the opponent busy” fit in? Is it, for example, a good idea to play ♖×b5 in order to even the material?

## About ChessTask

I created the first draft of ChessTask when I started tutoring some of the kids in our local chess club. I wanted to prepare sheets with tasks on them, such that they could do some homework during the week. All I found for  $\text{\LaTeX}$  at that time was the style `chess` by Piet Tutelaers ([CTAN:fonts/chess/chess](https://ctan.org/ctan/packages/fonts/chess/chess)). It is OK for replaying and commenting complete games but setting up an arbitrary position is not really user-friendly. I needed some sort of graphical interface for editing diagrams more quickly.

Another problem that I tried to solve was the separation between the actual tasks and their solutions. I wanted to edit each single task in a whole but produce output with just the tasks or both, without having to reedit my input.

Up until today, this is how ChessTask mainly works. It manages a list of task “chunks”, where each entry consists of a diagram, a task and a solution. You give it all the information you have and during the export to a  $\text{\LaTeX}$  file you can specify what you would like to see in the final PDF.



The figure shows the main screen of ChessTask, which is what you will work with most of the time. You have the diagram at the top and can enter a text for the task and, if required, give a solution. Your text is formed as a sequence of these “task sets”. It’s as simple as that.

During the years, a lot of features were introduced that helped me in my work. One of the first things that I added was the output to HTML files. Other output formats and options like the export of whole directories and the special “ChessCards” format followed. The import functions offer to read in whole sets of FEN or EPD lines from a file. While converting a single position, ChessTask even recognizes EPD commands like “am” (avoid move) and adds an appropriate comment to the text of the task.

For a more complete overview, visit <http://chesstask.sourceforge.net> and read the online manual, please. Even better, try out the program itself and check whether it fits your needs.

Currently, a new version of ChessTask is under development which will support things like:

- Chess diagrams in solutions,
- customizable L<sup>A</sup>T<sub>E</sub>X and HTML headers/trailers,
- support for the “side to move” flag in diagrams,
- and much more.

It will take some months for the next release to appear, so be patient please and take a peek at the homepage and download area from time to time.

Finally, I want to direct your attention to a few packages for typesetting chess with L<sup>A</sup>T<sub>E</sub>X:

- SKAK ([CTAN:fonts/chess/skak](#))

This excellent package is what ChessTask relies on for creating all the diagrams, informant symbols and move stuff in general. It is a great replacement for the CHESS style and helps a lot when writing texts about chess. The moves of a game can be input in PGN (Portable Game Notation) and single board positions are set up by FEN (Forsyth Edwards Notation) strings. You can highlight single squares, draw move arrows, hide pieces... the list goes on and on. The latest version 1.4 has been revised by its author Torben Hoffmann and Ulrike Fischer for a better support of different chess fonts in notation text and the diagrams. It is now based on the CHESSFSS package (see below), making it possible to draw boards in any size you like, for example.

- SKAKNEW ([CTAN:fonts/chess/skaknew](#))

Ulrich Dirr took care of the original SKAK font sources and converted them from METAFONT to Type1. He added a lot of corrections to the figures and informant symbols and the result looks great, as you can see in this article. Highly recommended if you use the latest version of SKAK.

- CHESSFSS ([CTAN:macros/latex/contrib/chessfss](#))

This package, aiming at writers of chess styles, offers commands to use and switch between chess fonts. It is based on the L<sup>A</sup>T<sub>E</sub>X font selection scheme (NFSS) and was written by Ulrike Fischer.

- CHESSBOARD ([CTAN:macros/latex/contrib/chessboard](#))

Another nice add-on by Ulrike Fischer for the extended display of board diagrams. Thanks to her effort you can crank the look of your chess boards

to eleven by using bended move arrows or exotic pieces like for fairy chess, highlighting squares, colouring the background, colouring the figures, colouring... whatever.

– ENPASSANT ([CTAN:fonts/chess/enpassant](http://ctan.org/tex-archive/fonts/chess/enpassant))

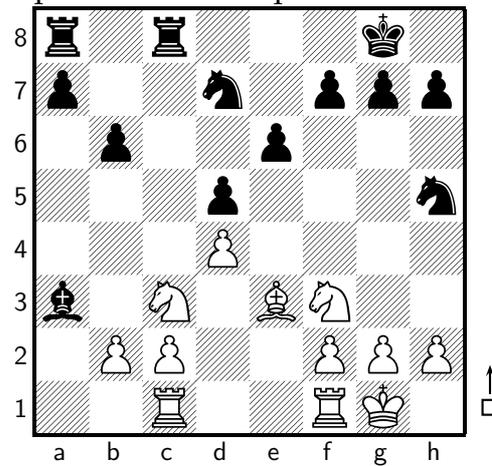
A collection of Type1 fonts, ready for use with the CHESSFSS package. It contains most of the TrueType chess fonts available at <http://www.enpassant.dk> and was compiled by Ulrike Fischer.

All together, they can be very powerful and offer a lot of options. So if the output of this article convinces you and you plan to write about chess: Try them out today!

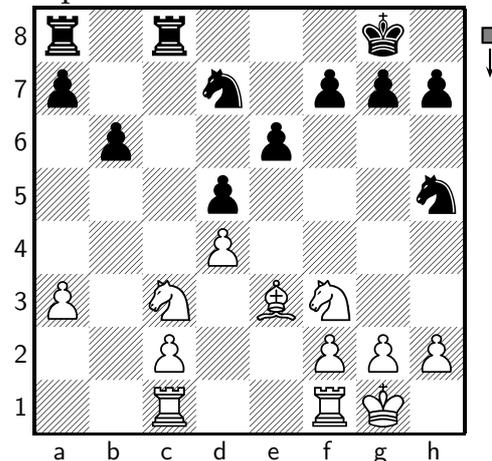
## Solutions for: Square concepts

### Task A

$\text{♞}\times\text{a3}$  uncovers the weak point in White's position.



The pawn b2 is (or better: was) responsible for covering the pawn at a3 and the  $\text{♞}\text{c3}$ , which is attacked by the  $\text{♜}\text{c8}$ . He can not do both at the same time, so after taking the black bishop with  $\text{b2}\times\text{a3}$ ...



... Black captures the knight with  $\text{♜}\times\text{c3}$ , is a pawn ahead and additionally attacks the white pawn on a3.

This all happened because White tried to develop his rook on a1. While moving it to c1 he did not realize that it had a task to attend to: covering the pawn a3. Instead of sharing work with his buddy, it said: "Goodbye, I'm off." Not really a

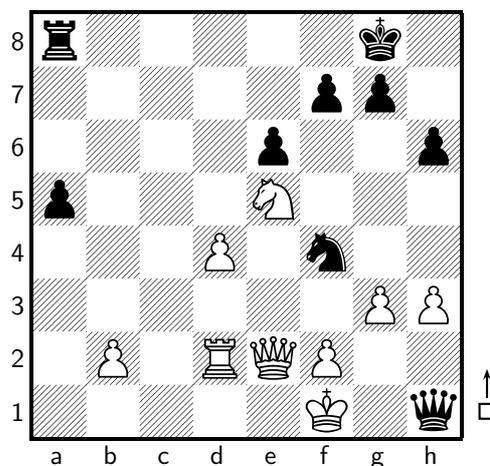
nice thing to do, is it?

My advice in general is: before making a move, check that the piece does not have a concrete task. This can be covering an own piece, but also attacking an important square such that your opponent can not easily take it under his control. In the same way you can ask the following questions after each move of your contrahent: "Did he leave one of his pieces uncovered?" "Is a square unoccupied now, such that I can safely place one of my figures on it?"

Try to find out what has changed on the board and how you can exploit the new situation!

## Task B

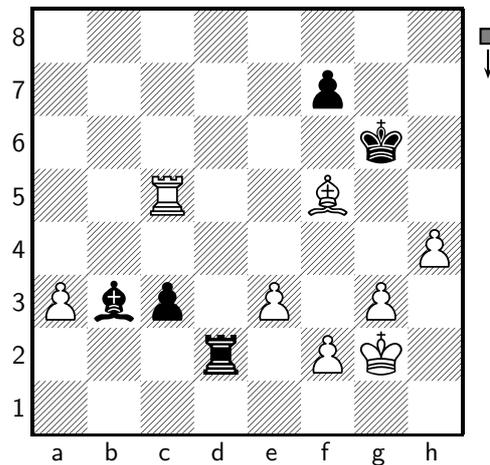
It would have been better to take a closer look and see the "mate in two" with  $\text{♞f4+}$ . This powerful double-check leaves no escape for White. On  $\text{♔f1}$  the simple  $\text{♚h1\#}$  follows...



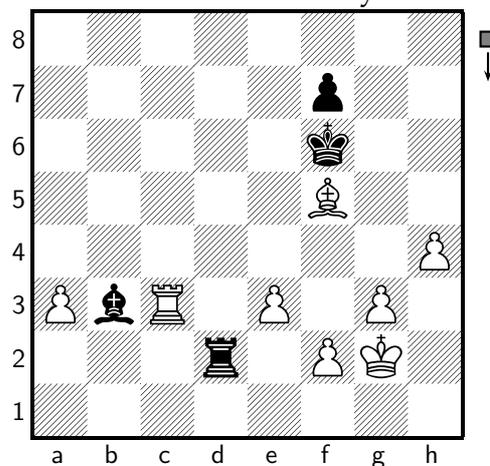
... while  $\text{♚h2}$  is answered by  $\text{♚g2\#}$ .



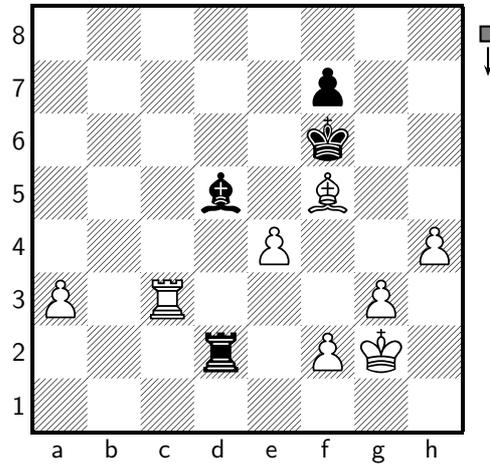
have saved my day.



The king has to move, let us assume that Black plays  $\text{♔f6}$ , and now the rook captures the next pawn  $\text{♖xc3}$  and simultaneously attacks the bishop on b3.



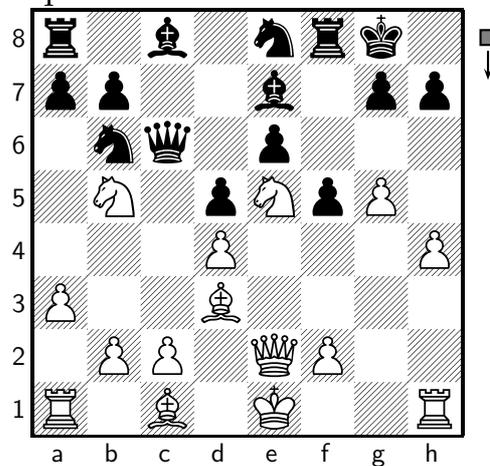
If Black captures the bishop  $\text{♜xf5}$ , White answers  $\text{♖xb3}$ . Another try would be  $\text{♙d5+}$  but then the simple  $\text{e4}$  follows.



The white bishop is covered, Black's is attacked and White is now four pawns ahead. That is really what I call a decent alternative!

### Task D

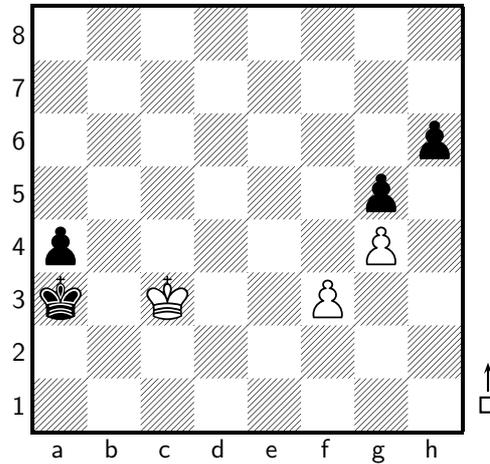
White plays  $\text{♞e5}$  and the queen is lost!



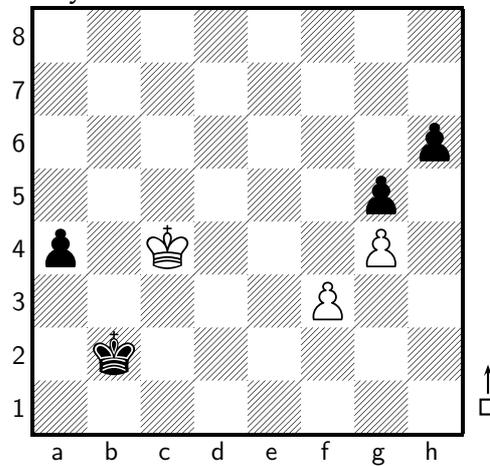
Quite embarrassing... and it is not even near the "enemy's territory". Just like when this happened to me, I am a bit speechless, so without further comments on this little disaster my advice: "Do better than me in your own games and try to keep your eyes open!"



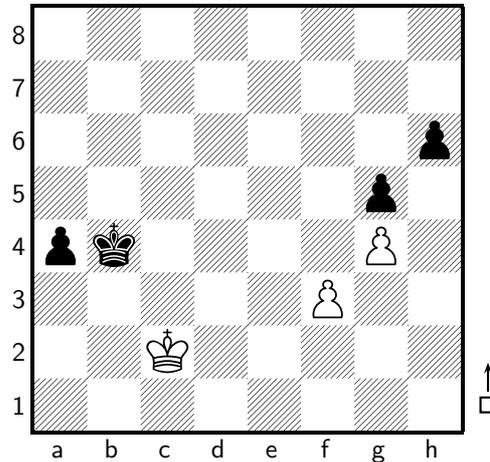




Notice how things are turning here. Now Black, instead of White, holds what is called the “opposition”. He can wait for the move of White and then decide where to go next, which is often an advantage in endings like this one. However, White does not have a lot of choices... he has to play 3. ♔c2. On all other moves, like 3. ♔c4, Black can win by 3... ♚b2

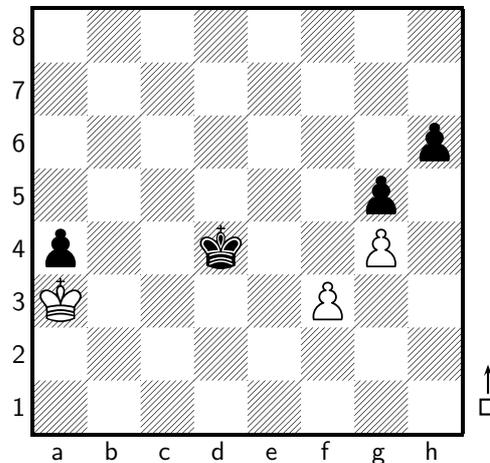


which guards the a-pawn on his last three steps to the promotion. But after the mandatory 3. ♔c2 Black escapes his prison with 3... ♚b4.



Again, White has no choice but to further attack your isolated pawn with 4. ♖b2. If he tries something fancy like 4. ♔d2 you can always strain at his leash by advancing the a-pawn. Keep him busy, he has to come back!

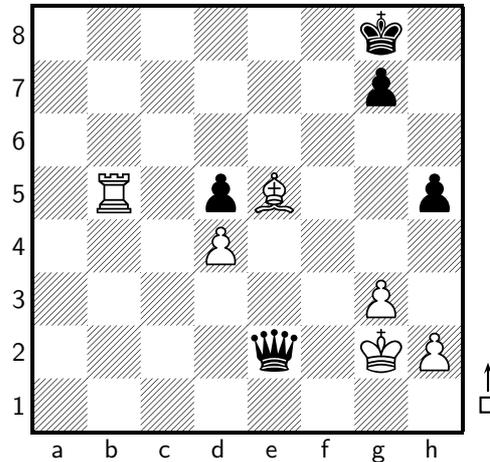
Assuming that White gives in by 4. ♖b2 ♔c4 5. ♖a3 ♔d4, the following position is reached:



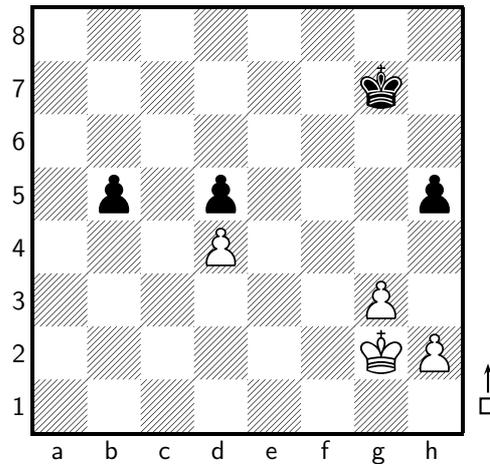
The advantage for Black is evident now: White captures the a-pawn but will have to stop two connected pawns on the g- and h-file with his bare hands, so to speak.

## Task G

The greedy ♜xb5 is definitely the wrong road to take. After Black's reply ♗e2+ the rook is lost in the next move.



The best thing White can do in the starting position is to exchange rook and bishop for the queen and a pawn with 1. ♖×g7+ ♚×g7 2. ♙×g7 ♜×g7. The resulting diagram...

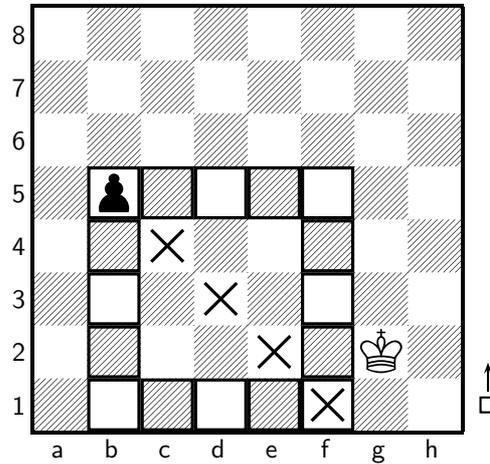


... is now examined further to show that it is, in fact, a draw!

We try to decompose the problem into smaller "chunks" by blending out the pieces that do not affect the current part we look at. This is not always possible, but here we can subdivide the board into three main areas of interest:

1. We have a passed pawn on the b-file (good for Black),
2. two blocked pawns on the d-file and
3. two against one on the g- and h-file (good for White).

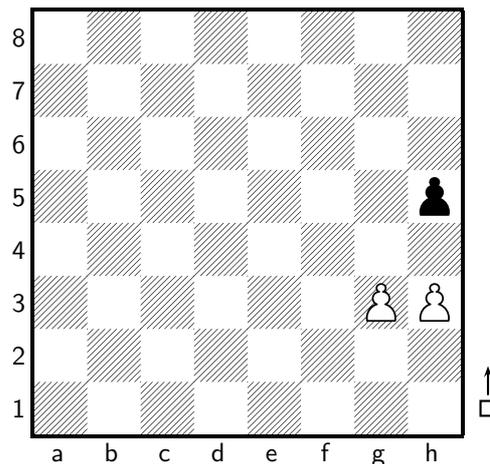
Let us neglect the block on the d-file and see if we can still intercept the b-pawn.



If you try to catch a single pawn with your king, there is a simple rule that goes as follows: “Starting at the pawn, the diagonal to the last rank spans a square. If your king gets into this square with his next move you can get the pawn.”

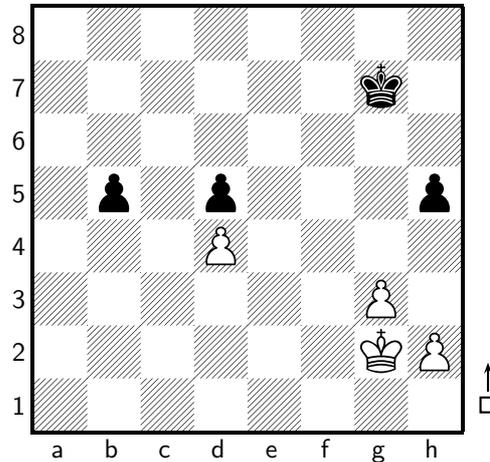
Here, the square shows that White’s next move has to be something like 3. ♔f3.

Next, we take a look at the right side of the board. White’s goal here is to reach the following pawn structure:

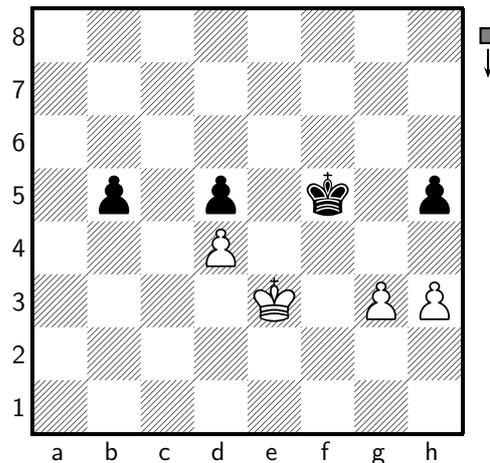


It ensures that we can create a passed pawn at any time with g4 and this is what “keeps Black busy” and guarantees the draw.

Now we blend in all pieces again and look at the actual moves that have been played.



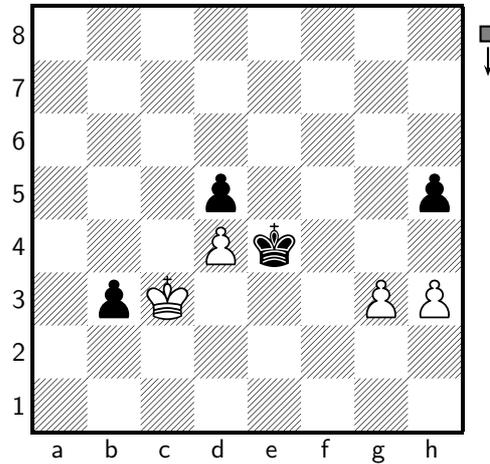
3. ♔f3 ♕f6 4. ♖e3 ♗f5 5. h3 and the white pawns to the right are ready to give Black something to think about.



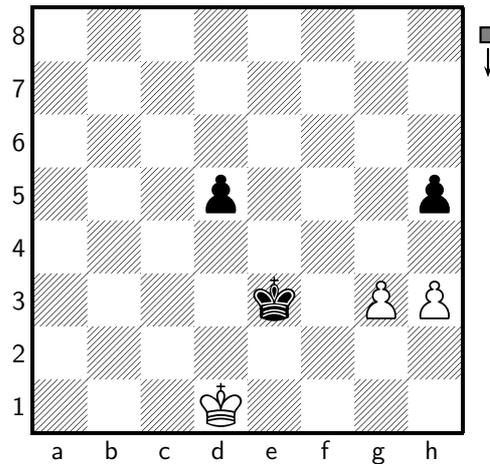
Now what is Black to do? He can not get through on the right flank and when he tries to support his b-pawn

1. he will give White enough time to block it and
2. is moving further away from the threat g4.

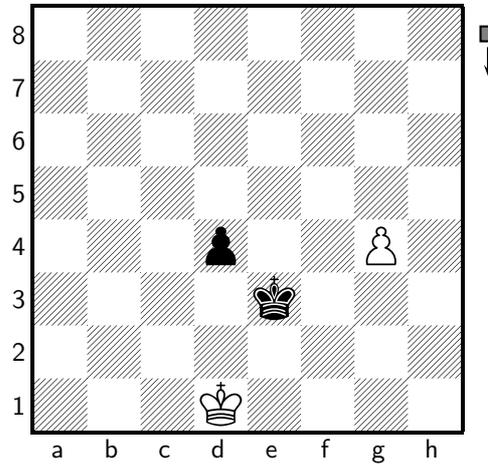
Feeling the pressure, he decides to make for a change and wants to give White some work with 5. ... b4 6. ♖d3 b3 7. ♗c3 ♕e4.



Both kings are ready to capture a pawn, but can White stop the d-pawn once it is free? Yes, after 8. ♔×b3 ♕×d4 9. ♖c2 ♖e3 10. ♔d1



his way is blocked. Now the “keep busy” pattern shows up again and with 10. ... d4 .g4 h×g4 12. h×g4 the game ends with the final position



which is a draw. Do not worry too much about all the moves that have been played or could have been played. Try to focus on patterns and memorize how the decomposed pawn structures blend in with the “keep busy” theme. That’s all this task is about in first place.

Finally, a short word to all you advanced players out there. I did not go into very much depth for this task, so there may be better sidelines and deep and thoughtful variants around somewhere. . . not to speak of faults and errors.

On purpose, I tried to pick out a single certain aspect—like in the tasks before—in order to present what I designed ChessTask for: as an aid in teaching basic chess concepts to beginners.