## Step 5 plus

## Reminders



The $2^{\text {nd }}$ edition of workbook Step 5 plus is published for the first time as an international version. We have decided to remove the reminders and make them available as a PDF file for downloading.
This means more exercises on the pages that have become available.
As a teacher you can now hand out the reminders one by one at the appropriate time. Please note that a reminder can never replace the lesson in the manual! (Manual for chess trainers Step 5).

The page number at the bottom left refers to pages in the workbook with the corresponding theme of the reminder.

The solutions of all workbooks can be found on the website at: http://www.stappenmethode.nl/en/solutions.php

Information and an order form can be found on our website at: http://www.stappenmethode.nl/en/

## Activity

Pieces have to do as many things as they can: attack opposing pieces, control as many squares as possible, cooperate with their fellow pieces. Make sure that your pieces are active or else place them on squares from where they are doing something useful. If your own pawns are blocking the way for your rooks and bishops, then you must open the position.


## Maintaining the tension

The bishop on g5 is en prise. Taking on f 6 solves that problem, but White would much prefer to maintain the tension. He can do that with 1. Bh4! White need not fear 1. ... g5 2. Nxg5 hxg5 3. Bxg5. White always recovers the piece, even after 3. ... Nb8 4. Ne4 Nbd7 5. Qc1!


Pieces to a better square
The pawns are pretty well fixed in this position. Knights do not usually suffer much from fixed pawns.
With 1. N2b3 White can transfer his second knight too to a better square, namely a5. Though this is on the edge of the board, the knight is active from there. It is attacking the bishop and controlling c6 and b7.


## Activating pieces

The bishop has a splendid post on f 4 , and it would be a shame if it had to be moved (to protect the f3-pawn). The bishop must continue to control the squares around the white king. So Black plays 1. ... e4! 2. Nxe4 Be5, so as to also bring the queen into the attack with 2. ... Qh4


Pieces to a better square
White has to bring his queen and his a1-rook into play. He has a choice. Of course the queen can go to f3, Black then has to play passively with 1 .... Qc7 2. Rae1 Bd8. The move 1. Qe2 is not so good on account of 1 . ... Nxd5. The best move is $\mathbf{1 .}$ Qa4 $\mathbf{B b 7}$ (a better reply is 1. ... Bc8, even if that costs the a7-pawn after 2. Bxc8) 2. Rae1 with major problems for Black.


Don't exchange pieces
The white kingside has been weakened, so Black would prefer to keep the queens on the board.
After 1. ... Qf6 the queen gets in the way of its own bishop. 1. ... Qh5! is much better and then Be5. White cannot take the knight: 2. Qxf4? Be5.


## Opening the position

White's major pieces are not yet doing much. On account of the position of his own and the opposing pawns, there are at the moment no squares from which they can unfold their strength. It is time to open the position. So White plays 1. e4. After 1. ... Nh6 (1. ... Be5 2. d4) 2. Re1
(2. Nxf5 is also strong) 2. ...
fxe4 3. dxe4 d4 then 4 . Nf5 is decisive.

## Pawn endings

In pawn endings one tempo is very important. After all, there are only king and pawn moves. So you have to be very sparing in your use of tempo moves. The more tempo moves you have in reserve the better.


In the diagram on the left the side which has the move is unfortunate. Whoever moves loses. In the right of the same diagram, White will be in the driving seat with the correct king move: 1. Kg4! Ke2 2. Kg3.

On the right White must choose his pawn moves with care. 1. b5 b6 would be wrong. But 1. bxa5 c5 is followed by 2. a6 bxa6 3. a5 and Black is in zugzwang.

A pawn on its starting square is often an advantage. The pawn has the option of moving one or two squares.
On the left White loses after 1. h4 h6. The correct way is $\mathbf{1}$. h3 g6 2. hxg6 hxg6 3. h4.

On the right White must leave the h-pawn where it is, since it can advance by one or two squares: 1. g4! (1. h3 h5! loses) 1. ... g6 2. h4 g5 3. h5 and wins.

The rook pawn. On the left the side whose move it is, wins the a-pawn. In any case Black cannot win, since the white king reaches the a1-square. So, White to move must make sure that the black king cannot reach c7: 1. Kf7 Kc2 2. Ke6 Kd3 3. Kd5! and wins.
Key squares. On the right: 1. Kh2! (1. Kxh3? Kxh5) 1. ... Kxh5 2. Kxh3.

Let us look at a breakthrough on the left. It is too soon for 1 . g4 fxg4 2. f5 gxf5 3. h5. The correct way is 1. Kd3 Kxb3 2. g4 fxg4 3. f5! gxf5 4. h5. Now after 4. ... g3 5. Ke2 is decisive.
On the right the white king is not in the square of the pawn but the black king is. White needs a little bit of magic with 1. Kf8 Kf6 2. Kg8 Kg5 3. Kg7 Kxh5 4. Kf6.


## King in the middle

The third golden rule is: get your king to safety! It can of course happen that the king is safe enough in the middle and that castling is not necessary. Usually, however, that is not the case. If it is in the middle the king can be attacked from all sides and the pawns in front of it have usually been pushed forward already.


## Point f7

The weakest point in the starting position is f 7 for Black and f2 for White. That need not be a problem when one at least makes sound opening moves. In this diagram Black has placed one of his pieces slightly awkwardly. After 1. Qc4 Black can no longer defend f7: 1. ... Nd5
2. Qxc6+.


## Pinning

A bishop on b5 which pins a black piece against the king crops up in numerous openings. Black wants to get out of the pin with a6, which, however, is not a good idea. White does not need to move his bishop away at once. 1. Qf3 is strong. 1. ... Qe7 or 1. ... Qf6 is followed by 2. Bxd7+ Bxd7 3. Qxb7. An even worse move is 2. ... f6 3. Qh5+ g6 4. Nxg6 hxg6 5. Qxg6+ Ke7 6. Ba3\#.


## Preventing castling

Black is slightly behind in development. Nevertheless, at first sight there appears to be no problem. That would also be true if Black could castle. So White must prevent him from castling with 1. Ba3, after which Black does have problems. He cannot even play 1. ... Nbd7, since White then strikes with 2. Rxe6+ fxe6 3. Bg6\#.


## Opening the position

In situations where there are kings in the middle you must try to open up the position. White manages that in this position by leaving his pawn on d4 and playing 1. Nd5! No matter what he plays, Black loses material:
A. 1. ... Nxd5 2. exd5 Qc5 3. dxc6 Qxb5 4. Re1+ Be7 5. Qxd4
B. 1. ... Qd8 2. Bg5 Be7 3. Nxe7 Qxe7 4. e5


Quick development
This position occurs after 1. e4 e5 2. Bc4 Nf6 3. d4 exd4 4. Nf3 Nxe4 5. Qxd4 Nd6 6. 0-0. White has sacrificed a pawn for a lead in development. He is already winning, since Black has placed his knight on d6. After 6.
... Nxc4 (or 6. ... Be7 7. Qxg7
Rf8 8. Re1) 7. Re1+ Be7 8.
Qxg7 Rf8 9. Bh6 it is all over..


Attacking without the queen The queens have been exchanged. Usually a king in the middle is not so bad then, even if one can no longer castle. This position is an exception, above all because Black has already moved his king.
White can obtain a big advantage with the surprising $\mathbf{1 .}$ Nb5. After 1. ... cxb5 2. Bxb5+ Bd7 (2. ... Ke8 3. Rd8\#) 3. Bxd7+ the Ng 4 falls.

## The wrong bishop

Having an extra bishop and rook pawn is not enough for a win if the bishop is not of the same colour as the queening square. There is quite a lot to be said about this "wrong bishop".


On the left, White draws if his king can get to a1 in time. The king is still outside of the square of the pawn, but it gets there in time thanks to the f-pawn: 1. Kd6! (threatens 2. Ke7) 1. ... Kxf6 2. Kc5, and the king reaches a1.

On the right Black is left with the wrong bishop after 1. a6. After 2. Kd5 and 3. Kxc5 it is a draw.

On the left Black has the wrong bishop, but also an extra pawn which seems to promise a win. However, White can cleverly secure half a point: 1. Bd3+ Kb4 2. Bxa6!

On the right White must win the h-pawn. It makes no difference that it costs him a knight. After 1. Nh5 Bg6 2. Nf6 and 3. Nxh7 the h-pawn disappears from the board.

In the left-hand diagram White has no problem drawing without the g pawn. At the moment the king cannot reach the corner. However, there is a surprising way to save the game:

1. g4+. After 1. ... hxg3 (1. ... Kxg4
2. Kg2) Black can no longer win.

Check it out.
There are two such drawing positions on the right. No matter whose move it is, it is a draw.

The wrong bishop wins:

- if the defending king cannot reach the corner
- if the rook pawn can be turned into a knight pawn
On the left, after 1. Ke5 Kh4 2. Bf5
Kg5 3. Ke6 Kh4 4. Kf6 White wins slowly but surely.
On the right the a pawn becomes a b-pawn after 1. Ka6 b5 2. axb5 and wins.



## Vulnerability

In almost every position there are weaknesses. We must learn to exploit our opponent's vulnerability. We just reduce as far as possible our own vulnerability.


- On the left, Black appears to have problems. Both 1. ... f5 2. d3 and 1. ... Nf6 2. Nxd6+ lose. We find the solution for Black whenever we discover the weakness of White's back rank: 1. ... Be6! 2. Qxe4 Bxc4.

On the right White can only attack the c6-pawn when his own security is guaranteed. White begins with 1. h3, so as to prevent a possible mate.


In these positions we have insufficiently protected and unprotected pieces.
On the left the unprotected bishop on e7 stands out. 1. Bxe4 Bxe4 2. Nc3 Qf5 3. Nxe4 Qxe4 4. Re1.

On the right there is a vulnerable queen on d4, which also still has a defensive role: 1. ... Bc5 2. Qd3 Bxe3 3. Qxe3 Rxc4.


## Queen endings



The queen can do great damage in the endgame. Here the white king is the victim: 1. ... Qf3! (threatening f6\#) 2. Qe5 f6+ 3. Qxf6 Qg4\#.


Meeting a check with a counter check is an effective way of getting out of annoying checks. After 1. Ke2! Black can give check, but the white queen can be interposed with check, e.g. 1. ... Qc2+ 2. Qd2+.


Exchanging queens is a good strategy for the attacking side, especially if it has a far advanced passed pawn: 1. Qg7+ Kd3 2. Qd7+, and after the exchange of queens the d-pawn decides.


One strong weapon is X-ray check. The chaser chases the king on to the fatal square:

1. Qg2+ Kf4 2. Qg5+ Ke4 3. Qf5+ Kd4 4. Qd7+.


Perpetual check is the defender's most important weapon. After 1. c7 Qe4+ and perpetual check. So White first finds a better place for his queen with 1. Qc8+ Kg7 2. Qb7+ Kf6 3. c7 Qc3+ 4. Kg2 Qc4 5. c8Q.


The black king is shut in. After 1. Qe7 White can make use of zugzwang. The black queen needs to keep up the protection of the h4-square and so cannot move. Black has no useful moves. White wins.


Setting up a battery often makes sense. White wins with

1. Qd5+ Kf6 (1. ... Kxf4
2. Qg5+) 2. Qg5+ Ke6 3. f5+.

A rewarding discovered check.


White must watch out for the perpetual check (1. c7? Qe3+ 2. Kd5 Qd3+). By 1. Qe5!

White prevents this defence:

1. ... Qe7+ 2. Kd5 Qxe5+ 3.

Kxe5 Ke7 4. Kd5 Ke8 5. Kc5, and White wins.


White's win is very unexpected and again comes by setting up a battery: 1. b8Q! Qxb8 2. Qe4 (2. Qd5? Qg8 3. Qxg8 stalemate) followed by a winning discovered check: 2. ... Qf8+ 3. Kg3+.

## Defending

If the attacking side makes a mistake, then it is usually not fatal: the attack may have been beaten off, but the battle goes on. On the other hand, if the defender makes a mistake then the game can be lost on the spot. So when defending it is important to be especially careful.
Let us repeat the basic ways to defend: capture, move away, protect and interpose. In Step 5 the degree of difficulty is again a bit higher.


## Defend against mate

Black is threatening mate on g2. White can react by protecting or interposing. In addition he must also take care to always be able to meet Ng4 with Bg1. The correct move is $\mathbf{1 .} \mathbf{Q e 2}$, but the obvious 1 . Ne4 is bad in view of 1. ... Nxe4 2. gxh3 Nf2+ 3. Kg1 Nxh3\#.


Defend against a passed pawn The first move is not difficult:

1. Re5+. White only has to think after the reply 1. ... Kf8. Taking on e2 is stalemate. White plays the cunning 2. Bf7! (the point being 2. ... Kxf7 3. Rxe2 ). Black can still try 2. ... a2 (3. Bxa2 e1Q), but then there is the threat of the strong 3. Bh5! And unavoidable mate on e8.


## Defend against threats

White has started the attack on f7 with Ng5. Black's best move is 1. ... d5. White can sacrifice a piece with 2. Nxf7 Kxf7 3. Nxd5 Be6 4. Bxc7 Qd7, but then Black is better. Nor is 2 . Bb3 Bb4 any good and 2. Nxd5 Nxd5 3. Bxd5 Bxg5 would be quite bad.


Defend against an attack on the king
Black played 1. ... g6 (2. Nxd5 is a threat to be taken seriously), and White was able to continue attacking to his heart's content. When there is an attack on the king, swapping off the attacking pieces is a good strategy: 1. ... Nxc3 2. bxc3 (2. Bxf6 Ne2+ 3. Kh1 is followed by Bxg2+) 2. ... Be4.


## Defend against threats

Black is a pawn up; White has some pressure. Black defended with 1. ... Rae8, but after 2. Bb5 he could no longer protect the pawn on e7. The correct move is 1. ... Be6, in order, if required, to be able to swap off the active knight, e.g. 2. Bb5 Bxd5 3. Rxd5 Rfd8.


Getting out of check
Without thinking White would play 1. Rg1. he is fortunate that after 1. ... Qa8+ 2. Rg1 Qa1+ he still gets the chance to make up for his mistake.
White must divert the queen from the long diagonal with 3. Bc1! Qxc1 3. Rg1.

The best move is of course the immediate 1. Bc1!

Sometimes the attacking side must maintain a pin even if it does not bring in an immediate gain of material. The best thing to do is to maintain the pin as long as possible, an 'eternal pin'.


On the left White pins with 1. Bc3 Kg7 and now the important move 2. h4! The pin does not last much longer. Black runs out of moves: 2. ... g5 3. h5.

On the right White does not take on e5, till Black gives up the protection of e5. He has always a choice between two bishop moves. Although he can gain two points he maintains the 'eternal pin'.


On the left Black can get out of the pin, but not fast enough.
White wins with 1. h4 Ke8
2. Rxd7! Rxd7 3. h5 Ke7 4. Bxd7+ Kxd7 5. h6.

On the right we can see three eternal pins from which it will cost the defender material to escape.

## Defending

The defender is not always helpless. On the left White cannot increase the pressure: 1. ... Rd7 2. a4 Rd8! (not 2. ... a6 3. a5, and White conquers the c5-square) 3. a5 Rd7! White can do no more.
On the right too, White has nothing. Black is threatening Rf8!, and after 1. Ke2 Re8+ 2. Kd2 Re5 Black is ready to play 3. ... Kd6.

On the left the Ng7 is lost. White can save himself with an eternal pin: 1. Rf3 Bxg7 2. Rf7!

On the right Black wants out of the pin on the Nf6. White has other plans and plays 1. Bh4. He continues to tie down the queen. 1. ... g5
2. Nxg5 hxg5 3. Bxg5 followed by Qd2 and Qf4 would be bad now. Check it out.


## Endgame: bishop against pawn

An extra bishop is usually enough for a win. There has to be at least one pawn left on the board.


Black is threatening 1. ... Kb3 and a4-a3. White has to put his bishop on the correct diagonal: 1. Bd6+ followed by 2. Ba3.


Liquidating to a pawn ending. Remember this trick: 1. Bd4 Kb3 2. Bc3 b4 3. Kd4 bxc3 4. bxc3 Ка4 5. Kxc4.


The bishop also has a lot to offer in defence: 1. Bh6 Kf7 2. Bf4 Kf6 3. Bd6 a2 4. Bc5 and now Black must take a draw: 4. ... Kf5 5. Bd4 Ke4.


The bishop has two tasks: protect its own pawn and stop the passed pawns: 1. c5+ Kb7 2. Be4+.


The bishop must keep the king away from f6 and guard f8: 1. ... Bg7 (not 1. ... Bc5+ 2. Kf6) 2. Ke6 Ke4 3. Ke7 Kf3 4. Ke6 Kf4 5. Ke7 Kg3.

'Sticking' is a clever defensive weapon: 1. ... Bf3. Now White must weaken his position: 2. c7 (or 2. Kc5 Ke7 3. d6+ Kd8) 2.
... Bg4 3. Kc6 Bc8 4. d6 Ke6.


White cannot take on a3 as long as the black king is attacking the c3-pawn. The bishop must go to b1: 1. Ba2 Kb2 2. Bb1!


White can no longer stop the h-pawn. The extra bishop makes the difference: 1. Bd1+ Kf2 (1. ... Kxd1 2. b8Q and 3. Qb1+) 2. Bf3 Kxf3 3. b8Q.


White must get everything moving so as to stop the far-advanced linked passed pawns. He is forced to play $\mathbf{1 .}$ Kd1
Kc3 2. Be1! (or else Kd3 and e2\#) 2. ... Kd3 3. Bxd2.

## Zugzwang

Zugzwang: it is your move and the only moves you can make will weaken your position.


In endgames it can be useful to act as though it were your opponent's turn to move. What could Black do in the diagram on the left? Every rook move would cost him his rook after a discovered check. So White must make a waiting move which does not really change the position: 1. Ba5!

On the right, Black is threatening Re2+, so White plays 1. Kg1 and we end up in the position on the left.


Working with zugzwang is a good weapon. The stronger side makes a waiting move, so that the opponent runs out of moves. On the left White plays 1. Be1 Kc7 2. Bf2 Kc8 3. Bg3
Kd7 4. Kb7. In such positions a knight (e.g. on d3) is of no use. On the right, White loses at once if it is his move. Black can shift the move to White with 1. ... Bf7 2. Bc2 Bg8 3. Bd1 Be6.


On the left the queen is preventing White from mating with1. g3\#. After 1. Bc7 the threat is 2. g3+. Black cannot make an airhole: 1. ... g5 2. Bd8+, so all he is left with is $\mathbf{1 .}$... Qf2. White then plays 2. Bd6, and after 2. ... Qf4+ 3. g3+ Black is lost. On the right after 1. Kg7 Black has no sensible move left: 1. ... g3 2. Re4; 1. ... Ra3 2. Re5\#; 1. ... e5 2. Rxe5+; 1. ... Rf2 2. Rh1+.


On the left 1. Rf8 Ne7 achieves nothing. White must patiently play1. Rf7! All Black can move is his g-pawn (any move with a piece is met with 2. Rf8): 1. ... g4 2. Kf2 g3+ 3. Kg2. Now 4. Rf8 is decisive. On the right Black is running out of moves: $\mathbf{1 . ~ K g 2 ~ g 4 ~ 2 . ~ K h 2 ~ g 3 + ~}$ 3. Kg2 Kh5 4. Kxg3 Kg6 5. Ne5+. White must still be careful: 1. Kh2 g4 2. Kg2 g3 does not win.


