## $\square$ Rob Brunia Cor van Wijgerden



## Learning chess Manual for chess trainers

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# Learning chess 

Manual for chess trainers

## Step 5

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Information: www.stappenmethode.nl
E-mail: info@stappenmethode.nl

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## Preface

The Step-by-Step method has been officially acknowledged by the Dutch Chess Federation. It has been successfully adopted by the majority of chess clubs and schools in the Netherlands and Belgium.

The course consists of six manuals, aimed specifically at chess teachers and trainers, and six workbooks for students. The course introduces the game of chess in a no-nonsense, common-sense way to players from ages 6 up. It introduces many psychological aspects of the game and avoids the pitfalls that characterise many less extensive courses. It allows anyone of average and above average ability to absorb - at one's own pace - the chess rules and skills that are necessary to become a strong club player. It also tries to remove most impediments that cause players to play below their strength.

Step 5 does not devote as much attention to tactics as do previous Steps. Nevertheless, tactics continue to play a prominent role in the games of the students. In Step 5 we begin to focus more on the positional aspects of a chess game. We will address a number of strategic aspects in the lessons on pawn structure, the seventh rank, strong squares and open files.
In chess it is important to play with a plan in mind. This also holds for the endgame. We will consider a number of aspects of endgame play, including the cooperation and the relative value of pieces in specific endings. We also devote a separate chapter to defending, since this is a topic which, at this playing level, is neglected by almost all of the students.

At present not all books of the chess course have been translated into English. Updated information can be found at our website, at: www.stappenmethode.nl

For more information, please contact info@stappenmethode.nl
Enjoy your chess lessons!

## Cor van Wijgerden

## The fifth Step

The manual for Step 5 is the last manual that is intended for group training. The number of students that gets to Step 5 is, unfortunately, not that large. However, this does not mean that the chess training should stop after Step 5. Although the manual for Step 6 is intended first and foremost for an individual approach, much of the material can also be used for the purposes of group training.

For chess clubs group training sessions are easiest to organize. It goes without saying that both the books for individual training and the computer course can be used as extra material beside the group trainings.
We consider the lessons in this Steps to be useful only if the students have successfully mastered the previous Steps. This means, among other things, that they have passed the required exams. In addition, the students should be able to apply the skills and knowledge obtained from Steps 1-4 in their games. If a student has not sufficiently mastered previous Steps, offering new knowledge will be counterproductive. The level of chess knowledge should go hand in hand with the level of chess skills.
As far as the trainer is concerned, we assume that he is familiar with the didactic approach as used in the first four Steps.

## Subject material

In general, Step 5 is not much more difficult than Step 4. The number of moves that is required to solve an average exercise has remained the same. In most cases the solution is 2.5 moves deep ( 5 ply). What makes Step 5 relatively difficult are the positional topics that are covered.
The number of chapters that deal with tactics is lower than that in previous Steps. Nevertheless, tactics remain to play a pivotal part in the games of the students. Step 5 contains an easy chapter that serves to refresh the students' knowledge of mating patterns. The lessons that deal with discovered attacks and pins feature familiar, but as far as these topics are concerned new types of preparatory moves (i.e. eliminating the defender, chasing, aiming and clearing).
In the games of Step 5-level students, positional aspects are beginning to
play an increasingly more important role. The lessons that deal with pawn structure, the seventh rank, strong squares and open files cover a host of strategic aspects. It should be noted at this point that these aspects should, if possible, be discussed in tandem with the students' own games.
The lesson that deals with attacks on the enemy king features the standard bishop sacrifice on h 7 . There are also a number of lessons which stress the importance of playing with a plan in mind. This holds especially for the chapters 'Rook against pawn' and 'Draw' (in particular the section that deals with 'the wrong bishop'). These two lessons illustrate the importance of piece cooperation. They also show that the value of chess pieces is only relative, depending as it does on the specific position on the board.
In addition, there are lessons that cover some aspects of pawn endings (i.e. breakthrough and pawn race) and rook endings (theoretical knowledge).
The chapter 'Defending' devotes attention to a topic which, at Step 5 level, is neglected by almost all of the students. A useful chapter, in short!
A good number of chapters are aimed at increasing the students' playing skills. This is done by means of exercises in which the students should play (game-)positions to a finish. A detailed analysis of a game-position can be found in the 'ACQUISITION' section of lesson 1. This analysis serves as an example for other game-positions.
Finally, it goes without saying that the choice of topics is personal, and has been based on a long experience with the chess development of beginning chess players, particularly children.

## Guidance

The improving playing strength of a young chess player should bring with it a change in the nature of the training. Every player develops in his own individual way, and the chess training should be adapted to this. While the group sessions continue, more and more personal attention will be required to prevent stagnation of a student's chess development. This requires much effort on the part of the trainer, both personally and in terms of the contents of the training sessions.
It is important to discuss and analyze the games of the students, not only to point out their mistakes, but also to provide a basis for subsequent training sessions. When discussing a game individually, the student should do the talking for at least half of the time. This will give the trainer an important insight into the student's skills and knowledge. The trainer can use this
information to his advantage when preparing subsequent training sessions. In addition, this format will give the student the opportunity to come to terms with the result of his games, irrespective of whether he won or lost.
It is striking that young players often know to pinpoint the decisive moment in their games.
When discussing students' games it is important not to focus on lost games alone, since this will create a rather negative atmosphere. In a similar vein, it is inadvisable to devote attention to won games only, since this will lead to a rather one-sided and unrealistic picture.
Apart from individual games, the trainer should also discuss the students' tournament experiences. Young chess players not only need to 'digest' the tournaments they played in, but many of them must also learn to adopt a proper frame of mind for tournament play.
Trainers must avoid identifying with the results of their students' games. A trainer must not only focus on results, but also on the chess development as a whole. It is tempting but inadvisable to show disappointment when a student has lost a game, since this attitude may demotivate the student.

## Individual development

One way to further the chess development of a young player is to improve his weakest points. In order to make progress, a player should be made aware of these points. This will make it possible for a player to see where there is room for improvement. When discussing a game, the trainer can for instance focus on the following mistakes, along with their likely causes:

## blundering pieces, leaving pieces unprotected

- insufficient control of the board
- fixation on one point
- tension


## calculating error

- see what you want to see (i.e. taking account of the 'nicer' moves only)
- visualization error (a captured piece is still present in calculations)
- temporal error (wrong order of moves)
moving for the sake of moving
- making a move because you have to, not because of a particular plan


## horizon effect

- not being able to look ahead far enough


## focusing on your own play only

- being concerned with your own possibilities and thereby missing those of your opponent
over-zealous exchanging
- avoiding tension
- being afraid to lose control


## idea-based rather than plan-based chess

- you suddenly spot a pretty move which, when played, you soon come to regret, for instance because it goes against an earlier plan


## being affected by an unexpected move

- insufficient understanding of the position
- focusing on your own play only
- being surprised by tactics


## respect

- too little: underestimating the opponent
- too much: fear of the opponent

This list does not exhaust the number of possible mistakes. The mistakes on the list are frequent, however. With the help of this list it becomes possible to set up individual player profiles. With dedicated training it then becomes possible to work on specific types of mistakes.

## Help

The help that is provided to the students in Step 5 strongly resembles that of previous Steps. In Step 5, too, the trainer asks the student to formulate the problem and point out the mistake. For more discussion, please consult the manuals for Steps 3 and 4.
Each of the lessons has a 'Help’ section, to be found under Workbook, which contains some additional pointers. Sometimes specific pointers are provided for particularly difficult positions. The general pointers that were
given in previous Steps will not be repeated after each lesson.
The topics considered in Step 5 build on previous topics. For this reason, the trainer should be able to recognize the nature of the mistakes made by the students. If a mistake is caused by lack of knowledge of a specific topic, then the relevant topic should be repeated. This is an important point, since it makes little sense to offer students new information if they have not mastered the basic knowledge. Step 5 focuses not only on combinations but also on the moves that set up combinations. As such, the trainer should be able to pinpoint where the mistakes are made, i.e. in the preparatory moves or in the combinations.
During Step 5, individual differences will arise in the students' integration of knowledge and skills. Some students require assistance in order to keep making progress. This assistance must be regarded first and foremost as individual support.
The mistakes made by the students may indicate that a change is required in the set-up of the lessons, the instruction, or the speed with which new material is presented. More generally, these mistakes show that old material should be repeated from time to time.
For the trainer, both the nature of the students' mistakes and their problems are a source of feedback. He can use this feedback to develop a tailor-made approach for the group in question. Note that a high number of questions reflects uncertainty on the part of a group. This warrants a reaction on the part of the trainer:

- The speed with which new material is introduced must be reduced.
- The material that is presented is too difficult.

Adapting the speed and/or the degree of difficulty gives the students back their confidence. It will also help the students to tackle the relatively more difficult topics.
The more the students progress, the more indirect the trainer's assistance becomes. And the more they progress, the more ambitious they become and the more willing they are to tackle new topics.
Given this, the trainer should bear in mind that introducing new material at an increased speed is likely to give the students superficial knowledge only. This may in turn lead to a loss of acquired knowledge and a stagnation of the students' development. If this problem is recognized, and these pitfalls are avoided, then this will lead to a lasting and successful increase of the students' playing strength.

## Analyzing a position

We already devoted some attention to the analyzing of game-positions by students in Step 4. At Step 5 -level, students should learn to apply different forms of analysis.
Which form of analysis is chosen depends on the topic under consideration and/or on the way in which the training is organized.
The trainer can check how the students are doing by asking each student to analyze a position on his own board. This gives the trainer the opportunity to monitor each individual's performance. When analyzing, the trainer must guide the students in the right direction. This is especially important during the first few lessons, when the students are still relatively unfamiliar with this kind of exercise. Specific guidance includes:

- indicating the general characteristics of the position
- indicating the goal (and, if required, intermediate goals)

The trainer should check whether the analysis is carried out with a specific goal in mind, or whether a student is merely trying out different moves.
It is important to tell the students where their analysis should stop; for more on this, see below (under 'working together').

Learning how to analyze game-positions is a gradual process. The students can master this skill only by learning how to formulate the characteristics of a position and the required course of action. Once they have mastered these skills, the students are ready to try new forms of analysis.

## Working together

One way in which a position can be analyzed is by working in pairs. This set-up is suitable for themes such as attacking a castled position, pawn race and rook against pawn. The trainer should check whether the students are actually cooperating or whether the work is done by just one of them. It goes without saying that the success of this format depends very much on the students' motivation. In general, students like to work in pairs.
It is not advisable to let younger children work in pairs. Younger children tend to focus on their own aims only. As a result, they can work together only if one of them assumes a subordinate role. This is clearly not what the pairwise set-up is intended for.
There are a couple of conditions which a pairwise analysis should meet:

- Not every game-position is suitable.

Positions in which there is a direct win are not suitable.

- The position should be one in which there is a clear goal.
E.g. a winning attack, a material advantage or a winning endgame.
- There should be a choice between various alternatives (preferably 3 or more)
It should take some time bef ore an exercise is solved.
- If possible, the altematives should be presented in an ascending order of difficulty.
In this way the analysis is also challenging for the stronger players.
- The analysis should have a clearly defined end result, which is adapted to the level of the students.
Advantages are not absolute. What is a technical win for a grandmaster may be only a small advantage at Step 5 level.
- One of the variations may be much more difficult than the others. Variation that are too difficult need not necessarily be discussed.
- It is not necessary to discuss all variations with the group afterwards.

Show the most important variations only. Be sure to show any beautiful moves suggested by the students.

- All variations that were suggested by the students should be discussed with the group afterwards.


## Finishing game-positions

Finishing a game-position against another student is also a form of analysis. Here, too, the students must have a clear idea of the characteristics of the position and the required course of action. During the first few weeks these can be formulated by the trainer, but eventually the students will have to do this themselves. When playing against each other the students should note down their moves, thus making it possible to discuss the game afterwards. Discussing the game on a demonstration board afterwards makes it possible to focus on the key moments. This way of finishing game-positions gives the trainer an insight into the level of knowledge and skills of the students. The trainer can also test the students' skills by finishing a game-position using a simultaneous format. This requires sufficient playing strength on the part of the trainer.

## Finding a good move

The approach that is required to find good moves is essentially the same as that outlined in previous Steps. The progress made by the students makes it
possible to find better moves.
The best approach consists of three parts:

- orientation of the position
- thinking up moves
- selecting and checking a specific move

In tactical positions a specific search strategy can quickly guide a student in the right direction (e.g. Which pieces are unprotected? Can I give check?). Unfortunately, however, the majority of positions does not have a specific goal. Nevertheless, the above approach can take us a long way towards finding the right move. Let us first focus on the orientation phase. (Below, we assume that there is material equality).
When evaluating a position, the following criteria are important:

- activity
- vulnerability

These two criteria have already been introduced in previous Steps.

## Activity

Piece activity comprises two aspects: increasing the activity of one's own pieces and reducing the activity of the pieces of the opponent. Piece activity can be enhanced by attacking targets and controlling squares. In Step 5 this involves, among other things, control of the centre, of escape squares (in particular those of the king), of squares on the opponent's side of the board, and of squares on the part of the board where the main action is (e.g. the kingside).

Piece cooperation is another form of activity. At Step 1 and Step 2 level it sometimes pays off to undertake an attack with a single piece. At higher levels attacks are more likely to be successful if more pieces are involved. A good cooperation between pieces is of the utmost importance. Examples of piece cooperation include mutual protection (defensive and supportive), working together (e.g. in a mating net), controlling squares (preferably as many connecting squares as possible), exchanging the labour, dividing the labour, and even sacrificing.

## Vulnerability

It is important to try and get rid of one's own weaknesses, e.g. undoubling doubled pawns, 'repairing' weak pawns, bringing defenders to the kingside and protecting weak squares. At the same time it is important to try and
create weaknesses in the opponent's position. To do this, a player should be on the lookout for tactical opportunities (unprotected pieces, pieces on the same line, etc.), weak squares, pieces that are bound to a particular task and points that are hard to protect.
One factor that plays an all-important role in these considerations is time. This is not surprising. After all, when you can mate your opponent in four moves but your opponent can mate you in three moves, then activity and vulnerability do not matter anymore. That is, direct threats must always be given priority.

## Example positions

Taking the preceding discussion as our starting-point, let us now take a look at a number of gamepositions. In each position White is to move.


## Activity

The white pieces are active on the kingside ( $\mathrm{Ng} 5, \mathrm{Rg} 3$ ) or aimed at it (Bc2, Qe2). The only piece that is not active yet is the rook on al.
The black pieces are aimed at the queenside (Nb6, Qd7, Ra8). Be7 and Rf8 are the only two pieces available to defend the king. The a8-rook is ready for combat, but this will cost Black a move.

White has more influence in the centre. The e5-pawn in particular controls a number of important squares.

## Vulnerability

There are more attackers on the black kingside than defenders. In addition, the black kingside has been weakened by g6 (forced by the attack on h7). Apart from this the black position has hardly any weaknesses.
As for White, his d4-pawn is in jeopardy.

Analysis of the position results in the following plan.
White cannot focus on the black king only. Black is threatening to take on d4. After 1. Radl (White brings out his last piece) Black plays 1. ... Nd5 (on his way to defend the kingside and attacking the f4-pawn).
White must act before Black can bring his pieces over to defend his king. White should thercfore invest material so as to gain time.

In this position the familiar rules of the kingside attack apply:

- create a hole
- bring up more attacking pieces

1. Nxh7 Kxh7 (if the rook moves White continues with 2. Qh5 or 2. Bxg6) 2. Qh5+ Kg7 3. Rxg6+ fxg6 4. Qxg6+ Kh8 5. Qh7 mate. The orientation was characterized by tactical considerations. Tactics play a much smaller role in the following position.

(Bellon-Alonso, Cienfuegos 1996) Activity
All of White's pieces have good positions, apart from the hl-rook. The best place for a rook is on an open file. White also has more influence in the centre.
Black has no reason to complain either. His pieces have reasonable positions or they can be moved to good squares. The e7-bishop has a bright future on f 6 .

## Vulnerability

At first sight both sides do not appear to have any weaknesses.

But if we check the vulnerability list we find that there is something wrong with Black's position.
The pawn on h6 provides White with an attacking target. This weakness, though minor, gives White a chance to engage his hlrook in an attack. Hence, White should opt for a kingside attack. A good move is 1 . Rhgl, but it is even better to choose a more direct approach.

1. g4 Nxg4 (or 1.... Rfe8 2. Rhgl followed by g5) 2. Rhgl Nf6 (2. ... h5 3. h3 Nf6 4. Qe3 Ne8 5. Qh6 f5 6. Qxe6+ does not help either; Black is also lost after 4. ... g6 5. Qh6 Bd8 6. Bxg6 fxg6 7. Rxg6+ Kf7 8. Rg7+) 3. Qe3. Black resigned. There is no way to stop 4. Qxh6. Note that 3. ... Kh8 runs into 4. Rxg7.


## Activity

As for White, only the queen and the el-rook are active for the time being. Black has developed his knights and bishops. Note, however, that the knight on c6 is
not placed particularly well. This is due to White's pawn on d 4 , which is firmly supported by the c3-pawn.

## Vulnerability

Black is tied to the protection of the d5-pawn (for the time being he has to protect this pawn with of all pieces! - his queen. Here, too, the weakness of h6 plays a role. White can move his queen to g3 with gain of tempo, and Black is unable to control the f5square with his g-pawn (as this would leave h6 unprotected).

In those positions where there are still some undeveloped pieces, it makes sense to bring out these pieces first. This would suggest a move like 1. Bf4 (threatening 2. Qg 3 , winning a pawn). Black can
avoid losing a pawn, but only at the cost of accepting a doubled pawn: 1. ... Rfe8 2. Qg3 Bd6 3. Bxd6 Qxd6 4. Qxd6 cxd6 5. Ne3 Ne7 after which White is better. Black might be able to avoid a weakness by playing 1. ... Kh8 2. Bf4 Rac8. For this reason, White should perhaps first mobilize the fl-knight. After 1. Ne3 (attacking the d5-pawn) 1. ... Rad8 2. Nf5 White is threatening to take on h6, e.g. 2. ... Rfe8 3. Bxh6 gxh6 4. Qg4+ Bg5 5. Nxh6+ Kh7 6. Qxg5 winning. After the better 2. ... Bg5 3. Qg4 is also strong. It would seem as though White is winning, but Black can put up a stubborn defence with 3. ... f6 4. h4 (or 4. f4 g6) 4. ... h5! (not 4. ... Bxcl 5. Re7). In each case, White retains the advantage.

## The trainer

A chess trainer who is working with young players has a difficult job. If he wants to perform his job properly, a number of conditions must be met. First of all, a trainer should have sufficient chess skills (this depends on the level of the group, of course). A trainer should also be familiar with the contents of the course material. In addition, we should not underestimate the didactic skills that a trainer must have. And last but not least, a trainer must also be able to get along well with children.
The Step-by-Step approach follows the development of children's chess skills closely. As such it gives the trainer an insight into this development. The trainer can use this insight to better suit the needs of the children. Working with children also requires a trainer to pick up on the various needs of the children. This is a skill that can be developed by listening and
by looking around. Having this skill is the first step towards being a good teacher.

Experience has shown that being a good trainer takes both instruction and experience. It goes without saying that trainers with teaching experience in schools have a natural advantage, but their experience and knowledge does not automatically make them good chess trainers. Chess has its own didactic aspects and chess players have their own development.
If a chess club has more than one trainer, then these trainers should use the same approach. They can do this by sticking closely to the lessons in the manuals, both in terms of the chess topics and the didactic aspects. Doing this will also provide the lessons of less experienced trainers with some structure. Sticking to the lessons gives each trainer the opportunity to gain experience and to increase his teaching skills.
Trainers who teach chess on a voluntary basis have a difficult job on their hands. But they also have a job which gives them plenty of opportunities to develop and improve, and plenty of opportunities to see the students enjoy themselves.

## Certificate

After having gone through the lessons of Step 5, the students can take an exam. When they pass this exam they will receive a certificate. The certificate is not a goal in itself. The aim of the chess lessons is first and foremost to build and raise the students' chess skills ('how to learn and play better chess'), not to obtain certificates. However, certificates can be a good stimulus to continue with the course right to the end.

We must also realize that giving children the prospect of a certificate at the beginning of the year will not stimulate them for very long. The point at which they will receive the certificate lies too far ahead in the future. Shortterm goals serve as a better stimulus.

When preparing for the exam it is sensible to let the students do a test exam first and, if necessary, a second time. However, it is not advisable to have the students do too many test exams, as this will put a severe strain on their enthusiasm and place too much emphasis on the exams and certificates.

## How to use this manual

The manual contains many split diagrams．These must be read and set up on the board as separate diagrams．The left part of a diagram must theref ore be set up on an empty demonstration board（i．e．without the position on the right）．When discussing the right part，the position on the left has to be removed．Leaving the position on the board is not a good idea，since this often leads to misunderstandings．

The following symbols，which refer to diagrams，are of crucial importance： $\uparrow$ refers to the diagram on the top of the page．
$\Rightarrow$ refers to the diagram in the middle of the page．
$\checkmark$ refers to the diagram at the bottom of the page．
The moves in the answers are sometimes accompanied by an exclamation mark or a question mark，e．g．．1．Kxel！or 1．．．．Bf7？
The exclamation mark represents a good move．
The question mark represents a bad move．
The name of the reminder－if present－and the exercise sheets of the relevant lesson can be found in the exercises under the heading Workbook． The diamond is the name of the reminder，the square is the name of the exercise sheet．They can be found in the workbook．

## $\bigcirc$ Race <br> $\square$ Discovered attack／Preparatory move：$A$

## 暑

The degree of difficulty is indicated by means of the number of queens． The sheets marked＇兹＇can be done by everyone after the lesson．The sheets marked＂宸宸＇are more difficult and are intended only for the occasional student．They are strongly advised for everyone，but only at a later phase in the training．Most children will not come to the sheets marked＇范甾峟＇．These exercises are useful only at the end of the Step or during a subsequent Step，in which case they are ideal test exercises．

## Goal of the lesson

- recognizing and using the connection between material and time


## Prior knowledge

- (elements of) evaluating positions


## ACQUISITION

## Instruction

In the manuals of the first few steps we devoted some attention to the child's chess development. There we observed that three phases can be distinguished: the material, the spatial and the temporal phase. By now we have reached the temporal phase. In this lesson we discuss a characteristic example of this phase.
In the diagram ( $\lrcorner$ ) White is a pawn up, but he must still bring out his remaining pieces. On top of this, his king is vulnerable in the middle of the board. White needs a further three moves to complete his development: castling, a bishop move and a knight move. This means that Black has three moves in which to take some action. Black must use this time well. If he plays a couple of aimless moves, e.g. 1. ... a6 2. 0-0 h6 3. Nc3 Rad8 4. Bf4, then we arrive at the diagram ( $)$. White is still a pawn up, and Black has lost his temporal advantage. It is important to exploit a temporal advantage (e.g. a lead in development, as is the case here). A player with a temporal advantage should attack with a concrete goal in mind. Let's return to the position given in the first

diagram. Here Black's goal should be to try and keep the white king in the middle of the board, since this is the only weakness in the white camp. (Note, for instance, that the f2-pawn can easily be protected). The obvious move is 1. ... Rfe8+, after which White has a number of options:

- Try to maintain the extra pawn with 2. Kf1 (diagram $\uparrow$ ).
- Give back the pawn with 2. Be3 in order to gain time (diagram $\Rightarrow$ ).
In the diagram ( $(\mathbb{\imath})$ the check on e8 has disrupted White's development. Black has also acquired a new attacking target, since White now has problems protecting the f2pawn. Indeed, Black can win this pawn with 2. ... Ne4. There is nothing White can do, because 3. Be3 loses material after 3. ... Bxe3 4. fxe3 Ng3+ while 3. f3 runs into 3. ... Ng 3 mate!
In the diagram ( $\lrcorner$ ) White has responded with 2. Be3. This is a clever move, since if Black decides to take the pawn with 2. ... Bxe3 3. fxe3 Rxe3+ 4. Kf2 Rae8 5. Nc3 White will have his way: he no longer has a temporal disadvantage and the position is more or less equal. Given that capturing on e3 does not promise Black much, he is best advised not to regain the pawn (as this will cost him his lead in development). The more pieces on the board, the more likely an attack will be successful. In most cases maintaining the tension suits the attacker. Black can increase the pressure with 2. ... Nd5. Now White can respond with 3. 0-0, (diagram ${ }^{\circledR}$ ) after which it will take Black some effort to convert his advantage. Best seems to be the elegant 3. ... Rxe3 4. fxe3 Nxe3, winning back the exchange; Black remains a pawn up. The move 4. c4 is a

better defence, although Black is still better after 4. ... Re2.
The obvious 3. ... Nxe3 4. fxe3 Rxe3 5. Kh1 Re2 also gives Black the upper hand.
The move 3. Nc3 also does not save White because Black now has the opportunity to transpose to a promising endgame; after 3. ... Nxc3 4. bxc3 Bxe3 5. fxe3 Rxe3 6. Kd2 Rg3 7. Rhg1 Rd8+ Black is not only a pawn up, but his rooks are also much more active than White's.
This example illustrates that in some cases a temporal advantage outweighs a material advantage (in the form of a pawn). The fact that this example involves an open position is important. Due to the open e-file Black can engage his pieces straightaway. If we change our starting position by adding two pawns, then we end up with a drastically different picture (diagram $\Rightarrow$ ). Here, too, Black has a lead in development; however, this does not offer Black much, since there is no direct attacking target available. In this position White is better simply because he has an extra pawn.
By way of contrast, the temporal advantage in the position discussed above outweighed the material deficit of a pawn, the point being that the open position granted Black a concrete attacking target.
The element of time is also important in the endgame. An advanced passed pawn on the queenside can be worth a lot more than a couple of kingside pawns which are still (more or less) in their initial positions.
An illustrative example can be found in the diagram ( $(\square)$. The black pawns are as yet completely harmless, but the white a-pawn, assisted by the queen, is well on its way to the other side of the board.


This principle also plays a role in the position in the diagram ( $\uparrow$ ), which is taken from the game Fischer-Taimanov, Palma de Mallorca 1970. Black has just played Rd4, attacking the h-pawn. If White wastes time protecting it, Black manages to draw: 1. g3 Rd2! (not 1. ... Nd7 2. c5 bxc5 3. Rxb8+ Nxb8 4. Rxc5 Rb4 5. Rxa5, which favours White) 2. c5 Re8! 3. Rcl and now 3. ... Ne4 is sufficient for a draw; if White takes on e4, the black rooks will invade the second rank. A better plan for White is to give up his h-pawn, thereby gaining some valuable time: 1. c5 Rxh4+ 2. Kg1 Rb4 3. Rb3! Rxa4 4. Rxb6 Rxb6 5. cxb6 Nd7 (or 5. ... Rb4 6. Rxb4 axb4 7. Bc6) 6. b7 Nb8 (6. ... Rb4 7. Rd3) 7. Rd3, winning. Fischer played the weaker 3. Rxb4, but did manage to win the game.

## Search strategy

The sheets contain mixed exercises from previous Steps. These exercises continue to present problems if students do not follow the correct search strategy:

- study the characteristics of the position
- then look for a solution
- then check the move(s) found

It is a good idea to take the occasional position from one of the students' games as illustration. Diagram ( $\Omega$ ) can also be used for this purpose. Black has just played 1. ... cxd4. White can recapture the pawn, but after 2. ... 0-0 Black will be better on account of his good bishop and better pawn structure. Observe, however, that the black king gives White an attacking target. What is more, the king and queen are positioned on the same diagonal. The move Bb 5 is a pin with a twist: the bishop is not protected

directly, but indirectly by the knight fork on d6. Thus, the solution is: 2. Bb5 Qxb5 3. Nd6 + .

## Practice

## Finishing a (game-)position

The ideal acquisition of this lesson is in the form of a simultaneous display, during which particular attention is paid to this lesson's topic. One possibility is to use the game that is given in the reminder. (In this game, Black is a former Dutch champion). It is also possible to finish the following position, which arises in one of the variations of the Four Knights' Game:

1. e4 e5 2. Nf3 Nc6 3. Nc3 Nf6 4. Bb5 Nd4 5. Nxd4 exd4 6. e5 dxc3 7. exf6 cxd2+?
(better is 7. ... Qxf6 8. dxc3 Qe5+ with an equal and rather boring position) 8. Bxd2 Qxf6
(see diagram 9 ).
The trainer plays with the black pieces and allows the students to go their own way. Then, after half an hour or so, the trainer summarizes the main points of attention. Discussion of specific points will depend on the games played. Two ways in which the training session can be organized are:

- playing a particular variation to a finish
- pair wise analysis of a position from one of the games
In the remainder of this lesson we consider a number of possible variations and focus on a number of instructive positions that may arise from the above starting position. It is clear that an exhaustive discussion is beyond the scope of this lesson. Rather, the aim is to offer a foothold for those trainers

who are not strong players themselves.

9. 0-0

This move will not come naturally to all of the students. Popular moves include 9. Bc3 Qg 5 and 9. Qe2+ Be7 10. Bc3 Qe6. In both cases White cannot claim an advantage.
9. ... Be7 (diagram $『)$

This is an instructive move, and should be played first. If there are students who keep scoring easy wins after Be7, it is possible to vary with 9. ... c6 10. Bc3 Qh6 11. Rel+ Kd8 12. Bc4 f6 13. Qf3 Bd6 and 9. ... Qxb2 10. Rel+ Kd8! (10. ... Be7? 11. Rbl Qxa2 12. Bb4).
10. Bc3

Some students will opt for the weaker 10 . Rel? Qd6 11. Bc3 0-0 12. Qg4 Bf6 13. Radl Qb6, when Black is still putting up a good fight.
10. ... Qg5 11. Re1! (diagram $\Rightarrow$ )

Weaker are 1I. Qd3 0-0 and 11. Qe2? 0-0 12. Rfel (or 12. f4 Qc5+ 13. Khl d5 14. Bd3 Bd7) 12. ... Bf6.
Now we come at a crossroads. Black has a choice between two important moves: II. ... Qxb5 and 11. ... 0-0.

## Black captures the piece.

11. ... Qxb5 12. Bxg7

Other moves:
A) 12. Qd4 (not very strong) I2. ... f6 I3. Qe3 0-0 and White does not have much.
B) I2. Qg4! (diagram §) I2. ... Rg 8 (or 12. ... d6 I3. Qxg7 Rf8 I4. Bf6 Be6 15. Rxe6 and wins) and now:
I) I3. Rxe7+ (the violent - and popular approach) 13. ... Kxe7 I4. Qe4+ Kd8 15. Qh4+ f6 I6. Bxf6+ Ke8 17. Rel+ Kf7 18. Re7+ Kg6 19. Be5! and Black no longer has a defence.

2) 13. Qh4 Qc5 14. Bb4 Kd8 15. Qxh7 Qxb4 16. Qxg8+ winning.
3) 13. Qe4 Qg5 14. h4 Qc5 15. Bb4 f5 16. Qf4 with a large advantage.
4) 13 . Bf6? d6! 14. Rxe7+ Kf8 and Black is better.
12. ... Rg8 13. Qd4

An attractive but losing continuation is 13 . Bf6? Qc6 14. Rxe7+ Kf8 15. f3 Qxf6
13. ... d6 (diagram $『)$

A nice tactical exercise is 13. ... Qg 514. Qf6 Qc5 15. Radl c6 16. Rd6!
14. Rxe7+ Kxe7 15. Qf6+ Kd7 16. Qxf7+ Kc6 17. Qxg8 with a decisive advantage.

Black castles.
11. ... 0-0 12. Re5 Qf6

White wins after 12. ... f5 13. Qd5+ Kh8 14. Rael c6 15. Qd4 Rf7 16. Bc4 d5 17. Bxd5 cxd5 18. Qxd5.
13. Bd3 h6 (diagram $\Rightarrow$ )

Some alternatives for simultaneous display:
A) 13. ... g6 14. Rh5 Qc6 15. Rxh7 winning.
B) 13. ... Qd6 14. Qh5 f5 15. Rael Bf6 16. Bc4+ Kh8 17. Re8 g6 18. Qh6 and mate.
C) 13. ... d6 14. Rh5 Qe6 15. Bxh7+ Kh8 16. Bg6+ Kg8 17. Rh8+ Kxh8 18. Qh5+ Kg8 19. Qh7\#

## 14. Qe2

This is not the only road to victory: 14. Rel Qd6 (14. ... Qg5 is met with 15. h4 Qxh4 16. Re4) 15. Qg4 Bg5 16. Bb4! c5 17. Qf5 g6 18. Qxc5 Qxc5 19. Bxc5 Rd8 20. Bd6 with a large advantage.
Also popular is 14. Qg4 (less strong). Now, of course, we first grant the opponent his wish: 14. ... Qh4? (diagram (8) 15. Qxg7+! Kxg7 16. Rg5\#. 14. ... d6 also fails on

account of 15 . Qe4; the correct move is 14 .
... d 5 !, denying the queen access to e4.
14. ... Bd6 15. Re4!

Strongest. After 15. Re8 Qg5 16. Qe4 Rxe8
( 16. ... g6? 17. Qd4 f6 18. h4) 17. Qxe8+
Bf8 Black can prolong the struggle.
15. ... Qd8 16. Rg4 g5 17. Qe4 winning.

## Workbook

Test / Mix ( $4^{\text {th }}$ step): $A$ 㟶
Explanation: The themes of the exercises have all been taken from the previous Step. The topic concerned is given together with the answers. Ask the students to give a couple of examples of topics beforehand; this will help them to find the right answers.
Mistake: The correct answer is not found.
Help: If the characteristics of the position do not suggest an answer it is necessary to use the search strategy. Ask the student to name the characteristics of the position first (attacking targets!) and then ask them for a strategy. Doing this will help most students find the right move. If this method does not help, then it is appropriate to ask more specific questions. The kinds of questions will depend on the theme of the exercise concerned. More information on such questions can be found in the manuals of previous Steps.

## Test / Mix (4 $4^{h}$ step): B 㟶

Explanation: See exercise sheet A.
Mistake: The suggested solution for position 8 is 1 . ... Rxcl 2. Rxcl Bd2.
Help: Point out that after these moves White still has a defence. He has a choice between 3. Ke2, 3. Rc2 and 3. Rdl. Each of these defences is based on winning back the bishop (i.e. the black rook cannot keep protecting the bishop). Make sure that the student finds White's defence himself. How can this defence be prevented? By reversing the order of moves! This technique was already covered in previous steps.

## ANSWERS

Test / Mix (4 ${ }^{\text {th }}$ step): $A$

1) $1 . \ldots \mathrm{Bc} 2$
2) 3. Rh6 + Kxh6 2. Nf 7+
1) 2. ... Nxe5 2. dxe5 Qxe5+
1) $1 . \ldots \mathrm{Nb} 3+2$. axb 3 Nc 5
2) 3. Ne6 fxe6 2. Qg5+
1) 2. Be7 Qxe7 2. Qxd5+
1) 2. ... Qxg2+2. Kxg2 Nf4+ 3 . Kgl Nh3\#
1) 2. Qc7 Qxc7 2. Nf xe6+
$\square$ Test / Mix (4 ${ }^{\text {th }}$ step): B
1) 2. Qxa6 bxa6 2. Ba5
1) 2. R1d7 Kg8 2. $\mathrm{Rg} 7+\mathrm{Kh} 83$. Rh7+ Kg8 4. Rdg7+ $\Delta 5$. Rh8\# (seventh rank)
1) 2. Rf8+ Qxf8 2. Bxh7+
1) $1 . \mathrm{Rh} 8+\mathrm{Bxh} 82 . \mathrm{Qh} 3 ; 1$. Qh3? f5
2) 3. f4 Bxf4 2. h5+
1) $1 . \ldots \mathrm{Bg} 2$ 2. $\mathrm{Bxg} 2 \mathrm{Qh} 2+3$. Kfl Ne3+; 1. ... Bfi? 2. Bf3
2) 3. Nxd6 Qxd6 2. Bf4
1) 2. Nf4 Rh6+ 2. Qxh6 Bxh6 3. $\mathrm{Ng} 6+$
1) 2. Rxh6 gxh6 2. Bf6 $\Delta 3$. Qg3+
1) 2. ... Rxe2 2. Rxe2 Nf4
1) 2. ... Rc4 2. Rxc4 Bxd5+
1) 1 . ... Rxe3+ 2. Kxe3 Bd2+; 1 .
... Rxcl 2. Rxcl Bd2 3. Ke2/ Rc2/Rdl
2) 3. ... Qxh4 2. Nxh4 Rxf2\#
1) 2. Bc7+ Kxc7 2. Qd6\#; 1. ... Rxc7 2. Qf8\#
1) 2. d5 exd5 2. Rg3+; 1.... Qxd5 2. Qf6+
1) 2. Re7; 1. Qxd7? Nxd7 2. Re7 Nd5


## Goal of THE LESSON

- learning about 'quiet moves'
- refreshing old knowledge


## PRIOR KNOWLEDGE

- all combination types covered so far


## ACQUISITION

## Instruction

In the previous lessons on mate, preparing mate usually involved a forcing move. The clearest example of this type of preparatory move is check, although we also saw some examples of preparatory capturing moves. In this lesson we briefly reiterate the main points of these previous lessons, and then focus on the notion of the quiet move, and more particularly on that of zugzwang. We start the lesson with a straightforward example (diagram $\Rightarrow$ ). Black is mated after 1. Ng4+ (chasing and cutting off the king's escape square) 1. ... Ke6 2. Re4\#. After this, it is a good idea to ask the students to invent their own 'mate-in-two positions' in pairs. The students then solve each other's positions. This is not likely to present any problems; at worst, a student will toss in an unnecessary check, which delays mate with one more move. The students will in all likelihood only come up with positions that they are already familiar with. Pick some of the better examples, put these on the demonstration board, and ask the students which type of mate is involved. Following

this, we give a more specific assignment: "Come up with a mate-in-two position that involves a double check." Such positions may involve a wide range of combinations, such as away + mate, capturing + mate, X-ray attacks, discovered attacks, interposing, blocking, checks and double checks. If we bear in mind that the range of preparatory moves includes luring, chasing, aiming, clearing and eliminating the defender, then it will be clear that the number of examples is effectively limitless. Only a handful of positions can therefore be discussed; it is a good idea to let the choice of examples depend on the level of the group.
The diagram ( $₫$ ) gives an example which involves 'luring away+mate': 1. Qc6+ Rxc6 2. Nb5\#.
A range of examples of these positions can be found on the appropriate exercise sheets. The focus of the present lesson is on the 'quiet move'. This move does not involve a check or a capture, but is all the same a useful and tremendously powerful move. A quiet move can sometimes be used to take away the enemy king's remaining escape squares.
In the diagram ( $\Rightarrow$ ) giving check with the queen or the knight does not yield White anything; the black king escapes to e5. But White has time on his hands. With 1. f4, he takes e5 away from the black king. White now threatens mate in three different ways. Black can parry two of these with 1. ... Rxg3, but not the third: 2. Qc6 mate.
In the diagram ( $\downarrow$ ) the black king is in dire straits. He is surrounded by enemy pieces and has but few escape squares. These circumstances often invite a mating attack. With 1. Bf4 White takes away the black

king's escape squares and threatens both 2. Ne 3 and 2. Nf2 mate. Black can parry 2. Ne3 with 1. ... Nc4 and 2. Nf2 with 1. ... Ra2, but he cannot parry both threats at the same time.
A special type of quiet move is the tempo move which leads to zugzwang.
The left part of the diagram ( $\mathbb{v}$ ) has already been discussed in Step 2, in the discussion on mate-in-two with the rook. A rook move on the c-file will force the black king to a8, after which 2 . Rc8 mates. The first move is neither a check nor a capturing move. All Black can do is move his king to a worse position. We can therefore say that Black is in zugzwang.
In the right part Black faces a cruel fate. King and knight alone cannot give mate, but this position is an exception to the rule. The black king is imprisoned in the comer. This is not a problem in itself, but combined with the pawn on h3 it spells disaster. 1. Nf1 puts Black in zugzwang. He is forced to play 1. ... h2, after which 2. Ng3 mates.
In the left part of the diagram ( $\Delta$ ) Black seems to be ensured of a draw. After all, it is stalemate after 1. Nxc8. But after 1. Nc4 Black is in zugzwang. He cannot move his king and after a knight move 2. Nb6 mates. As in other types of mate-in-two exercises, the students should learn to recognize the mating patterns that are characteristic of 'quiet' mate-in-two exercises.
In the right part of the diagram the tempo move 1. Qe4 suffices: 1. ... Kg1 2. Qel \#. We make the exercises more challenging by extending the number of moves required for mate, i.e. mate in three. In the diagram ( ${ }^{\text {( }) ~ t h e ~ m a n o e u v r e ~ 1 . ~ B c 6+~ K b 8 ~ 2 . ~ B b 7 ~}$

brings Black in zugzwang. All Black can do is play his bishop, after which 3. Bxc7 mates.
In the diagram ( $₫$ ) a check further encages the king. After this a tempo move brings Black in Zugzwang: 1. Ne6+ Kh7 2. Ng4, and after move with the Ng 8 -knight White gives mate with 3. Nf6.
Positions such as these are a piece of cake for proficient players. However, at Step 5 level they will sometimes pose problems. In the diagram ( $\Rightarrow$ ) White does not have a decisive check. But after 1. Qd2 Black is suddenly in Zugzwang. Each move allows a quick mate. The knight must protect the d4-pawn, the pawn c3 and the queen a2 and b2. All Black can do is postpone the mate for two more moves with 1. ... Qb3+ and a subsequent check on c5.
In the right part of the diagram there is only a handful of moves possible. Black has a narrow escape after 1. Rh7+ Kxg5 and 1. Rg6+ Nxg6. Unfortunately, 1. Kf6 Rxg5 2. Rxg5 Nf3 does not win. But after the subtle 1. Rg8 Black is in Zugzwang: 1. ... Rxg5 2. Rh8\# or 1. ... Nf5 2. Rg6\#.

In the left part of the diagram ( $(₫)$ Black is a pawn down, but he has a surprising win after 1. ... c4 2. b4 a6 and now 3. Ne3 Nb2\# or 3. b5 axb5\#. It is also mate after 2. bxc4 Nc5+.

In the right part of the diagram Black has run out of moves after 1. g4+fxg3 2. Ng2. The only legal move, 2. ... g4, is met with 3. Nf4\#.

The difficulty of mate-in-three exercises depends primarily on the familiarity of the mating pattern. The students have already practised a number of familiar mating in Step 4, lesson 13.


We conclude this lesson with a difficult mate－in－three exercise which the students can set their teeth into（see diagram $\Uparrow$ ）．The black king is threatening to escape to d 7 ， and $1 . \mathrm{Bg} 4+\mathrm{Kf7}$ leads nowhere．The king move can be prevented only with a queen sacrifice．The second move is a tricky quiet move which cuts off the king＇s escape．The third and final move is with the knight． One variation is 1．Qf5＋Kxf5 2．Br7 a5 3.
 Ne3\＃．

## Practice

## Workbook

Mate in two／Getting the guard：A

## 兠

Explanation：The enemy king still has escape squares．These will have to be taken away first．The decisive check can only be given at the second move．
Mistake：The student fails to find the answer．
Help：Which squares are still available to the king？How can you gain control of these squares？

Mate／Mate in three：$A$兠
Explanation：This exercise sheet contains a wide variety of mating exercises．The themes include chasing and luring away enemy pieces and eliminating the defender．
Mistake：The correct solution is not found．
Help：Ask the student to explain his reasoning．Which moves has he taken into consideration，and why？Which mating pat－ terns are there？As a last resort it is possible to give the first move away．In that case the question becomes：give mate in two．
$\square$ Mate／Mate in the ending：$A$

## 峟寝

Explanation：Mate in three，with a variety of themes．
Mistake：The correct solution is not found．
Help：A useful first step is to ask the student to come up with the
possible mating patterns in the position. If the student has thought for a long time and still does not see the answer, a hint can be provided (e.g. by giving the name or the first move of the combination).

## ANSWERS

Mate in two / Getting the guard: A

1) 2. ... Re3 2. h4 Be6\#
1) $1 . . . . \operatorname{Rd} 3 \Delta 2 . . . \operatorname{Rd5\# }$
2) 3. $\mathrm{Re} 4 \mathrm{Bd} 52 . \mathrm{g} 4 \#$
1) 2. ... Rd5 2. c4 Nd6\#
1) $1 . \mathrm{Ke} 3 \Delta 2 . \mathrm{Rg} 5 \#$
2) 3. ... Rf7 2. Rf5 Nh3\#
1) $1 . \ldots \mathrm{Kgl} \Delta 2 . \ldots \mathrm{Nf} 2 \#$
2) 3. ... Rd6 2. Bb2 Re8\#
1) $1 . \mathrm{Kh} 4 \Delta 2$. $\mathrm{g} 5 \#$
2) 3. ... Ne2 2. e5 Rb4\#
1) $1 . \ldots \mathrm{Ng} 3 \Delta 2$... Nd3\#
2) 3. ... b4 2. Bxc4 Rc6\#

Mate / Mate in three: $A \square$

1) $1 . \mathrm{Qg} 6+\mathrm{Rxg} 62 . \mathrm{hxg} 6+\mathrm{Kh} 83$. Nf7\#
2) 3. Qh8 + Bxh8 2. $\mathrm{Rg} 8+\mathrm{Ke} 73$. Re8\#
1) $1 . \mathrm{Qxb} 8+\mathrm{Kxb} 82 . \mathrm{Rd} 8+\mathrm{Kb} 73$. Rb8\#
2) 3. Qg8 + Rxg8 2. Nxg6+ hxg6 3. Rh3\#
1) $1 . \ldots \mathrm{Nf} 2+2 . \mathrm{Bxf} 2 \mathrm{Qfl}+3 . \mathrm{Bgl}$ Qf3\#
2) $1 . \mathrm{Na} 6+\mathrm{Rxd8} 2 . \mathrm{Qb} 8+\mathrm{Rxb} 83$. Nc7\#
3) 4. $\mathrm{Rh} 8+\mathrm{Kc} 72 . \mathrm{Rc} 8+\mathrm{Bxc} 83$. Qxc8\#
1) 2. ... Qf3 + 2. Nxf3 exf3+ 3. Kf1
1) $1 . \mathrm{Rg} 8+\mathrm{Kxg} 82 . \mathrm{Rgl}+\mathrm{Kh} 83$. Bf6\#; 1. ... Rxg8 2. Bf6+ Rg7 3. Rd8\#
2) 3. Qd6+ Nge7 2. Qd8+ Nxd8 3. Rxd8\# RdI\#
1) 2. Re7+Kf8 2. Re8+Kxe8 3. Qe7\#
1) 2. Nxf6+Kf8 2. Ngxh7+ Rxh7 3. Qg8\#

## Mate / Mate in the ending: $A$

1) 2. Rh2+Kg6 2. Bh5 + Kh7 3.

Bf7\#
5) 1. $\mathrm{Ne} 5+\mathrm{Rxe5}$ 2. $\mathrm{Rf} 4+\mathrm{Kxf4}$ 3. Rxh4\#
2) $1 . \mathrm{f} 4+\mathrm{gxf} 32 . \mathrm{Qf} 4+\mathrm{Kh} 53$. Qh4\#
3) $1 . \mathrm{b} 4+\mathrm{Kxb} 42 . \mathrm{Qd} 4+\mathrm{Ka} 53$. Qc3\#
6) 1. h4+ Kh5 2. Rf5+ gxf5 3. Bf7\#
7) 1. Rb8+Kxa6 2. Rb6+Rxb6 3. Nc5\#
4) 1.g4+Kxh4 2. Qf6+g5 3. Qxh6\#
8) 1. $\mathrm{Ra} 8+\mathrm{Kxa8} 2 . \mathrm{Nd} 7 \Delta 3$. Ra2\#
9) 1. Rg5+ Kxg5 2. Nf7+ Kh5
3. $\mathrm{g} 4 \#$
10) 1. $\mathrm{Ng} 4+\mathrm{Rxg} 4$ 2. $\mathrm{Rd} 5+\mathrm{Kxd} 5$
3. Rf5\#
11) 1. Rh6 gxh6 2. h3+ Kh5 3. Bf7\#
12) 1. c8N+ Ka6 2. Kb4 Nd6 3. Nc5\#; 2. ... e5 3. Nb8\#


## Goal of the lesson

- raising the level of endgame technique


## Prior knowledge

- square of the pawn, key squares


## ACQUISITION

## Instruction

In Step 4, lesson 15 we have seen that it is important to try and create a passed pawn in the endgame. If on a given side we have a pawn majority, all we have to take care of is the correct order of pawn moves.
In the diagram ( $c$ ) the a-pawn must be advanced first. After the incorrect 1. b4? Black can fix the majority with 1 .... b5.
In the present lesson we focus on the type of moves that must be played in case of a fixed pawn majority and an equal number of pawns on a given side. The aim of such moves is to pass the opponent's pawns, thereby creating a passed pawn.
In the left part of the diagram (b) White can create a passed pawn by sacrificing one of his pawns, after which another pawn can advance to its promotion square: 1. c6 bxc6 2. a6 etc. Here the majority allows an easy breakthrough.
The right part of the diagram presents a different state of affairs. Here there is only one correct pawn move: after 1. f6 gxf6 2. h6 the h-pawn has broken through. Wrong is $1 . \mathrm{h} 6$ ? gxh6, since this does not result in a passed f-pawn.


In breakthroughs the distance of a pawn to its promotion square is of vital importance. In the left part of the diagram ( $\uparrow$ ) White can break through with 1. b6. This move creates a passed a-pawn. This pawn will reach its promotion square long before the black $b$ pawn will.
In the right part of the diagram Black is the first to promote his pawn after $1 . \mathrm{g} 4 \mathrm{fxg} 42$. f5 g3! 1.g4 is a winning breakthrough only if the king is near-by to offer assistance, for instance on gl: 1. g4 fxg4 2. f5 exf5 3. e6.
Rather more spectacular breakthroughs can occur when an equal number of pawns is positioned opposite each other.
The best-known breakthrough is illustrated in the left part of the diagram ( $\neg$ ). Ask the students to try and find the solution first. This position requires an initial preparatory move: 1. b6! axb6 2. c6 bxc6 3. a6 and White queens. 1. ... cxb6 is of course met with 2. a6 bxa6 3. c6.
In the right part of the diagram 1. g 5 fxg 5 ! 2. fxg5 h5! does not give White a passed pawn. White must play 1. $\mathbf{h 5}$ first and only then 2.g5; this order prevents the defensive resource $2 . .$. h5 .
The preceding discussion makes clear that breakthroughs without kings are rather easy to evaluate. It is much harder to evaluate a breakthrough if the attacking side also has a defending king to contend with. In such cases it is not only important to create a passed pawn, but also to take account of the square of the pawn. In the diagram ( $(\mathbb{)}$ White can push his candidate passed pawn forward with 1. g6 hxg6 2. hxg6. However, Black can then simply pick up this pawn with 2. ... Kf6. Whitc also achieves nothing with 2. h6; after 2. ... Kf6 the Black king is

within the square of the pawn. In the initial position the Black king is kept away from f6 by the g5-pawn. For this reason, Black is unable to stop the breakthrough after 1. h6!, e.g. 1. ... Ke6 2. g6 Kf6 3. gxh7 (not 3. g7 Kf7, drawing) and White queens.

Ask the students to construct a number of breakthrough positions themselves.
The diagram ( $\mathbb{0}$ ) is suitable to consider in pairs. Consider the position from Black's perspective first. It is not a good idea to create a passed f-pawn, since after 1. ... $\mathbf{f 3}$ 2. gxf3 gxf3 the white king is within the square of the pawn. But after 2. ... g3! 3. hxg 3 h 3 the h-pawn stays out of the white king's reach. Playing 1. ... g3 first does not work on account of $2 . \operatorname{hxg} 3$ (2. h3? f3!) 2. ... 3 3. Ke3 fxg2 4. Kf2 hxg3+ (4. ... h3? 5. g4 and White wins) 5. Kxg2, drawing. If White is to move, it is a draw after 1. Ke2 Kd7 2. h3 gxh3. Black wins the b-pawn and reaches f 8 in time. Note that 1. Ke4 runs into the breakthrough $1 . \ldots \mathrm{f}$ !
Using the positions in the diagram ( $¢$ ) we now consider some defensive strategies to counter a breakthrough.
On the left, White is threatening to prepare an unstoppable breakthrough with 1. b5: 2. a5 bxa5 3. b6. Thus, Black should play 1. ... b5 2. axb5 b6.
On the right, Black cannot afford to wait, as White's threat is $\mathbf{1 .}$ e6 (but not 1. f5 e6) 1. ... fxe6 2. f5. Black defends with 1. ... e6.
If so desired, the following two positions can also be discussed. Both are somewhat more difficult than those considered so far. In the diagram ( $($ ) White's extra pawn is in danger of being lost after 1. ... Kb6. With 1. c 5 White first shields off the black king.


The king cannot move without leaving the square of the a-pawn. Black's choice is therefore essentially limited to 1 . ... dxc5 or 1. ... d5. After the former White will queen his e-pawn, while after 1. ... d5 2. Kd3 Black has run out of moves. This type of breakthrough is also possible if the pawn formation is slightly different; for instance, if the white pawn is on a4 instead of on c4. A final example is shown in the diagram
 ( $\uparrow$ ), and is suitable for good groups only. What makes this exercise difficult is that Black has a choice between two pawn moves. Incorrect is I. ... h4 2. gxh4 f4 3. g3 and Black does not break through. After the correct preparatory move 1. ... f4 2. exf4 (or 2. gxf4 h4 followed by... h3) 2. ... h4 3. gxh4 (otherwise 3. ... h3) 3. ... g3 Black has reached a familiar position. After 4. fxg3 e3 the black e-pawn will queen.

## Practice

## Workbook

$\square$ Pawn ending / Breakthrough: A

## 㟶

Explanation: The side that is to move can force a breakthrough with a pawn sacrifice. In some of the exercises a preparatory move must be played first.
Mistake: The correct solution is not found.
Help: Most of the positions are straightforward. Which moves have already been tried? Give a hint and ask the student to try again.
Mistake: The suggested answer is incorrect.
Help:
Students are often uncritical as regards the possibilities of the opponent. Ask the student to look at the position from the opponent's perspective.

Pawn ending／Key squares：$A$
Explanation：It remains necessary to repeat previous topics．This sheet repeats and expands on some of the skills outlined in Step 3．In some cases explanation may be required．The sheet contains both winning and drawn positions．Some of the positions are also suitable for playing to a finish．In that case the trainer plays a position to a finish against one student，and then moves on to the next．
Mistake：$\quad$ The student has made a number of mistakes．
Help：$\quad$ The topic needs refreshing（or was never dealt with in the first place）．Students should not keep struggling；it is better to repeat the relevant topic（s）at a convenient time．It may be the case that other students are struggling with these exercises，too．
Mistake：The main variation is correct，but the defensive moves are weak．Some alternatives can be found in the＇ANSWERS＇ section．
Help：Play the position to a finish．

## 炭兠

Explanation：The themes of the exercises are given in the＇ANSWERS＇ section．The themes have been covered in previous Steps．
Mistake：The suggested answer is incorrect．
Help：$\quad$ Try to have the students correct their mistakes themselves if at all possible．Provide guidance with general questions， such as＂Which attacking targets do you see？＂or＂Which piece is an important defender？＂If this kind of help is not sufficient，then the trainer should ask questions that are related specifically to the theme．It is not a good sign if a student must be told the theme of a particular exercise．
Mistake：Position 8 is not solved correctly．
Help：Black has a tremendous position，but White is threatening to remove Black＇s main attacking piece on f 3 with 2 ．Nd2． It is therefore useful to look at the position from White＇s perspective．The inevitable conclusion is that Black must hurry with his attack．Ask the student about the mating pattern that Black should aim for．

## ANSWERS

Pawn ending / Breakthrough: A

1) $1 . \mathrm{c} 6$
2) 3. c6! (1.c4? c6)
1) $1 . \mathrm{g} 6$
2) 3. b4 cxb4 2. c5
1) $1 . c 5$
2) $1 . \mathrm{a} 6 \Delta 2$. b6
3) $1 . \mathrm{g} 4 \mathrm{hxg} 42 . \mathrm{f} 5$
4) 5. g5 Kh8 2. c4 bxc4 3.b5
1) 2. ... b4 2. cxb4 c3
1) 2. f5 gxf5 2. h5
1) 2. f6 gxf6 2. g6 hxg6 3. h6
1) $1 . \ldots \mathrm{a} 5$
$\square$ Pawn ending / Key squares: $A$
2) 3. Ke4 Rxd4+ 2. Kxd4 Ke6 3. Kc5 1-0
1) 2. Ke4 f3 (1. ... Kd6 2. Kxd4) 2. Kxf3 Kd5 3. Ke2 Kc4 4. Kd2 ½-1/2
1) 2. Kb8! (1. a7? Kc7=) 1. ... Kxa6 2. Kc7 1-0
1) 2. Kf2! (1. Ke2? Kxe4) 1. ... Kxe4 (1. ... Kxg4 2. Ke3! Kg5 3. Kd4 Kf6 4. Kd5 Ke7 5. Ke5) 2. Kg3! Ke5 3. Kh4 Kf6 4. Kh5 Kg7 5. Kg5 Kh7 6. Kf6 Kh6 7. g5+ Kh7 8. Kf7! (8. g6+? Kh8! 9. Kf7 stalemate) 8. ... Kh8 9. Kg6! (9. g6? stalemate) 1-0
1) 2. h5 (1. Kf6 Kh6 2. Ke7 Kg7 3. h5 1-0; 1. f5? gxf5 2. Kxf5=) 1. ... gxh5 2. Kxh5 Kg7 3. Kg5 Kf7 4. Kf5 Ke7 5. Kg6 1-0
1) 2. Kc2! (1. Kc3? Kb5; 1. Ka2? Ka6! 2. Ka3 Kb5) 1. ... Kc6 2. Kd3! Kb5 3. Kc3 Kc6 (3. ... Kb64. Kc4 Kc6 5. b5+ Kb6 6. Kb4) 4. Kc4 Kb6 5. b5 Ka5 (5. ... Kb7 6. Kc5) 6. b6! (6. Kc5 stalemate? ; 6. b4+? Kb6) 6. ... Kxb6 7. Kb4 1-0
1) $1 . \mathrm{b} 8 \mathrm{~N}+$ (1.b8Q Rb6+ 2. Qxb6+ Kxb6=) 1. ... Kb6 2. Nxc6 Kxc6 3. Kc4 1-0
2) 3. ... Ka8 2. Kb6a5 3. Kxa5 Ka7 4. Kb5 Kb7 $1 / 2-1 / 2$
1) 2. Kf4 (1. g8Q+? Kxg8 2. Kf4 Kf8!) 1. ... Kg8! (1. ... Kxg7 2. Kg5) 2. Kf5! Kf7! 3. g8Q+! Kxg8 4. Kg6 1-0
1) 2. a3 (1. Ka3 Ka5 2. d6 Kb6 3. Kb4 Kc6 4. Ka5 Kxd6 5. Kb6 1-0) 1. ... Kc5 2. Ka4 Kxd5 3. Kb5 Kd6 4. Kb6 Kd7 5. Kb7 1-0
1) 2. Kh4 (1. Kg4? Kg6 2. Kf4 Kf6 3. Ke4 Ke6 4. Kd4 b3! 5. cxb3 Kd6=) 1. ... Kg6 2. Kg4 Kf6 3. Kf4 Ke6 4. Ke4 Kd6 5. Kd4 b3 6. cxb3 Kc6 7. Kc4 Kb6 8. Kb4 1-0
1) 2. Kbl! (1. Kc3? a3 2. b4 Ke5 3. Kb3 Kd5 4. Kxa3 Kc6 5. Ka4 Kb6=) 1. ... a3 (1. ... Ke5 2. Ka2 Kd5 3. Ka3 Kc5 4. Kxa4 Kb6 5. Kb4) 2. b3! Ke5 (2. ... Ke6 3. Ka2 Kd6 4. Kxa3 Kc5 5. Ka4 Kb6 6. Kb4) 3. Ka2 Kd5 4. Kxa3 Kc6 5. Ka4! Kb6 6. Kb4 1-0

Test / Mix: C

1) 2. ... Nc5; 1. ... Nb4? 2. Bb7
1) 2. Bd2 Rg8 2. Bxa5
1) 2. ... $\mathrm{Qxg} 2+2$. $\mathrm{Rxg} 2 \mathrm{Rdl}+$
1) 2. .. Qxf4 2. exf4 Rh5
1) 2. Bxb8+Kxb8 2. Qxc6
1) 2. Bxf7+Kxf7 2. Qxd8
1) 2. Qf8+ Rxf8 2. Rxf8\#
1) 2. Ng5+ hxg5 2. Qh5\#
1) $1 . Q f 3+$
2) 3. Qh4 h6 2. Bxe7
1) 2. Qh8 + Bxh8 2. Rxh8\#
1) 2. Rfdl; 1. Rbdl? Qxfl+


## Goal of The lesson

- using pawns


## PRIOR KNOWLEDGE

- weak pawns


## ACQUISITION

## Instruction

Using the diagram ( $\Rightarrow$ ) we check what the students still remember about strong and weak squares.
The black pawn on h6 is extremely weak. It cannot be supported by another pawn and is an easy target, for instance for a rook on the h-file.
The pawns on f 7 and h 7 are also weak but less so, because they are more difficult to attack. As for White, the pawns on a2, c2, c3 and g2 are weak, c3 being the weakest of the bunch. Strong squares for White are d6 and f6; strong squares for Black are e4 and $c 4$. The question of whether a pawn is weak is of course primarily determined by the pieces - both one's own and those of the opponent - that are left on the board.
Pawns have a number of functions. One is that they serve as protection for the king and for other pieces. In addition, pawns support the function of one's own pieces and restrict the function of the pieces of the opponent (diagram $\downarrow$ ). Pawns in particular are suited for this purpose because of their low value.
Knights and bishops function well in the

vicinity of pawns, although bishops may be hindered by fixed (central) pawns. Major pieces need more space in order to function optimally. As a consequence, these pieces work better when they are not surrounded by pawns.
In the diagram ( $\uparrow$ ) we see the same pawn structure as in the previous diagram, but now without any accompanying pieces. We refer to the formation of pawns as the pawn structure. A good pawn structure does not contain any weak pawns.
In order to make it hard for the opponent to position his pieces optimally, we try to weaken the opponent's pawn structure. This can be done in a number of ways: the pawn structure can be 'splintered', isolated, or doubled. One's own pawns can play an important role in creating such weaknesses. In the diagram ( $\Leftrightarrow$ ) the white and black pawns are attacking each other. The white pawns on d4 and g4 and the black pawns on c 5 , e5 and h 5 all have capturing moves. Such mutual attacks introduce tension to a position. We need this tension to demolish (i.e. break up, tear apart) the pawn structure of the opponent. In the position at hand, the white d-pawn is under pressure.
We now look at some examples in which the opponent's pawn structure is tom apart. In the diagram ( $\sqrt{ }$ ) White has two pawns in the centre and his pawns on c3 and d4 are restricting the activity of the bishop on g 7 . Black now plays the strong move 1. ... c5. This forces White to relinquish his control of the centre, since he is unable to further protect the d4-pawn. Advancing the pawn leaves c3 hanging, and if White exchanges on c 5 then all that will be left of his centre is the e4-pawn. Now the g7-bishop is all of

a sudden a very active piece; the c3-pawn is in danger and Black has a firm grip on the e5-square.
The following example is illustrated in the left part of the diagram ( $\uparrow$ ). The three black pawns are harmonically placed. White can splinter the black pawns by playing 1. a5.
In the right part of the diagram White can also play a pawn move, but with a different aim. After 1. e4 Black can capture on e4 or advance his f-pawn; neither move results in a weakened pawn structure. With 1. e4, White's aim is rather that of increasing the activity of the h3-bishop. This bishop now no longer faces an enemy pawn.
Comparing the positions in the left and the right part of the diagram ( $\leadsto$ ) demonstrates a fundamental difference between 1. d4 on the left and 1. 44 on the right. The latter move is a good move. If Black takes on f 4 , White can recapture with his g- pawn, thus increasing his grip on the centre. After this exchange, Black will still be unable to occupy e5 with any of his pieces.
In the left part of the diagram 1.d4 is risky, since Black will gain control of c 5 after an exchange. Note in this respect that White lacks a b-pawn; this means that he will be unable to control c5 with a pawn.
A good pawn structure is important but not all-important. The activity of one's pieces is equally important, and in many cases it plays a decisive role.
In the diagram ( $\downarrow$ ) Black has just captured on e3 with his bishop. After the 'normal' 1. Qxe3 Nd4 White is slightly better because the black king is rather awkwardly placed in the middle of the board. However, Black is in real trouble after the surprising move

1. fxe3. The doubled e-pawns are of little

consequence, because Black cannot profit from them anyway. After the forced 1. ... Rr8 (to meet 2. Bf7+) 2. Rxf8+ Kxf8 3. Rf1+Kg7 4. Rf7+ White invades the black position decisively.
In the diagram ( $\uparrow$ ) Black's doubled pawn is a cause for concern. Black has problems advancing his kingside majority, as this will create holes around his king. Point this out on a demonstration board. The solution is straightforward. With 1. ... a4 Black forces White to trade on d5. After 2. Bxd5 exd5 Black's pawn structure has improved a lot. Note, incidentally, that 2. Bc2 runs into 2. ... a3.
Positions of this kind can be found on the exercise sheet that accompanies this lesson. Finishing these positions in a simultaneous format is useful training for the students. When discussing students' games, it is important to point out the benefits of improving one's own pawn structure, and of weakening the pawn structure of your opponent.

Summarizing, this lesson has dealt with three important aspects:

1) structure: the formation of the white and black pawns
2) tension: pawns or pieces (of equal value) which attack each other
3) demolish: breaking up the opponent's pawn structure


Mini plan / Pawn structure: A
Explanation: Exercise sheets of a strategic nature always present more problems to students, since the results cannot be measured in concrete terms (as is the case for tactical exercises). This means that it is necessary to give a good explanation of the idea behind these exercises. The answers to the exercises that deal with pawn structure are, unfortunately, rather inconcrete. The possibilities include:
Weakening the opponent's pawn structure.
(doubling pawns, isolating pawns, provoking weaknesses)
Improving one's own pawn structure.
(undoubling a doubled pawn)
Not allowing the opponent to improve his pawn structure. (preventing the undoubling of a doubled pawn)
Increasing piece activity by exchanging pawns.
Mistake: The correct answer is not found.
Help: Asking questions may give students an idea as to whether the exercise is about creating a weakness in the opponent's position or about improving one's own position. Then, depending on the exercise in question, a step-by-step approach is likely to be successful: "Can you give your opponent a doubled pawn?" or "Can you demolish your opponent's pawn structure?" Other possibilities can be found under the heading 'Explanation'. When a student is in doubt about the use of the correct move, it is a good idea to play the position to a finish.

Test / Mix: D
幽
Explanation: The themes of the exercises have been covered in previous Steps. As such, students should be good at determining the characteristics of a given position. Experience shows that it is very useful to solve a couple of exercises together on the demonstration board. This will give students another opportunity to go through the correct approach.
Mistake: The suggested solution is incorrect.
Help: Put the position on the board, play the incorrect move, and ask the student about the merits of this move. Asking the right questions will guide the student in the right direction.
Mistake: Position 12 is too dif ficult.
Help: The solution will remain difficult even when the battery of
the queen and the bishop is spotted. The front piece must take away one of the king's escape squares and eliminate the function of the h8-rook at the same time. Simplify the position by placing the black king on g8. The battery will then be familiar. If the student still fails to see the answer, then tell him that the attacking targets are material+square.

Test / Mix: E

## 峟背

Explanation: The themes of the exercises have been covered in previous Steps. See also exercise sheet D.
Mistake: The suggested solution for position 2 is $1 . \ldots$ Nxe5.
Help: Which move can White play now? Once this move has been found, ask the student to try again.
Mistake: Position 3 and/or 10 are not solved correctly.
Help: Both exercises are difficult. Give the hint that the enemy queen can be trapped. Trapping the queen requires some preparation.

## ANSWERS

Mini plan / Pawn structure: A

1) 2. ... c3 2. bxc3 Nxc3+
1) 2. $e 5 \mathrm{dxe5} 2 . d 5$
1) 2. a5 Bc7 2. a6
1) 2. cxb4; 1. axb4? a5
1) 2. Nxe5 Nxe5 2. Qd4 Qxd4 3. cxd4
1) $1 . f 4$
2) 3. ... d4
1) 2. $\operatorname{Bg} 5 \Delta \mathrm{xf} 6$
1) 2. ... Ng4 2. g3 Ne5
1) 2. b4
1) 2. c4 bxc4 2. Kc3 Nf4 3. g3
1) $1 . \ldots \mathrm{d} 4$

Test / Mix: D

1) 2. Rh8+ Bxh8 2. Qxh8\#
1) $1 . \mathrm{ab}$
2) 3. $\mathrm{Qg} 7+\mathrm{Bxg} 7$ 2. $\mathrm{Rxe} 8+$
1) 2. Qf3+
1) $1 . \ldots \mathrm{Nf} 4$
2) $1 . \ldots \mathrm{Khl}$

Test/Mix: E

1) 2. ... Qxe6 2. fxe6 Be4\#

Qb8+
3) 1. $\mathrm{Qb} 5 \Delta 2 . \mathrm{Ra} 7$
4) 1. ... Rxe4 2. Qxb6 Rxel $+\Delta$
3. ... axb6
5) I. Qa4 Qxa4 2. Rc8\#
6) I. Qxd6+Kxd6 2. Ba3\#
7) 1. ... e5 2. Bg 3 e 4
8) 1. ... $\mathrm{Nel}+2 . \mathrm{Kf} 2 \mathrm{Nc} 2$
9) I. Qxh7+ Qxh7 2. Nf7\#
10) I. ... h6
11) I. ... Rh5
12) I. ... Qd4; I. ...Nxf2


## Goal of The lesson

- extending the level of endgame knowledge
- learning to take the opponent's actions into account


## PRIOR KNOWLEDGE

- pawn ending (square, assisting, shielding off, queen versus pawn)
- X-ray check


## ACQUISITION

## Instruction

We first repeat some examples from Step 3 , lesson 5 ('the square of the pawn'). The students should be familiar with the notions of 'assisting' and 'shielding off.
The example shown in the diagram ( $\Rightarrow$ ) is straightforward. If White is to move, he can simply advance his pawn, which will reach the other side of the board before the black pawn will. The black king is outside of the square of the g-pawn, and is thus unable to stop it. The black pawn can advance as far as $b 2$, but the ensuing queen versus pawn ending is winning for White. This is a good opportunity to practice this type of endgame once more!
We call the battle between two oppositecoloured passed pawns, which is all about who reaches the other side of the board first, a pawn race.
Promoting your pawn first does not always guarantee a win, as is shown in the diagram $(\downarrow)$. White plays 1. h6, and after 1. ... 222. h7 alQ picks up the queen with the X-ray check 3. h8Q+.


A pawn race is sometimes concluded with a decisive tactical shot. In addition to an (X-ray) check, such a shot can also involve mate. In such cases, too, promoting your pawn first is no guarantee. Rather, what is decisive is the position of the other pieces on the board.
Consider the diagram ( $\uparrow$ ). Although White is to move, the black pawn will reach the other side of the board first. Unfortunately for Black, however, his king will end up in a mating net, as is shown by the variation 1. a5 b3 2. a6 b2 3. a7 b1Q 4. a8Q+ Kg1 5. Qg2 mate. This example is the exception rather than the rule: in most positions it is advantageous to promote your pawn first. Achieving this requires more than counting the number of pawn moves required. What also matters is the position of the king. In positions which involve a pawn race, the following questions must be asked:

- Does the pawn promote with check?
- After the pawn has been promoted, are the kings placed on the same file, row or diagonal?
In the diagram ( $\lrcorner$ ) White must look even further ahead than this. After 1. g7 b2 2. g8Q b1Q a winning X-ray check can be prepared by chasing the king to the b-file: 3. Qa8+ Kb4 4. Qb8+.

In the examples that were discussed so far the defending side did not have any options available; all the defender could do was to take part in the pawn race. In the following examples, however, simply advancing the pawn is not sufficient.
The diagram ( ${ }^{( }$) gives an example of one type of defensive resource. At first sight, it looks as though Whitc can snatch the black pawn. But after 1. hxg5 Kd7 the black king

steps into the square of White's pawn, after which the game will end in a draw. For this reason it is better to play $1 . \mathrm{h} 5$, after which the white pawn stays out of black king's reach. Still, after 1. ... g4 2. h6 g3 Black's pawn will reach the other side of the board at the same time as White's, and with a check to boot. Hence, in the initial position White must realize that an immediate pawn race will not give him more than a draw. Instead, the right move is to play 2. Kd4, positioning the king within the square of the black g-pawn. If Black now chooses to advance his g-pawn, White will first pick up this pawn. If, on the other hand, Black decides to play with his king, then White will advance his h-pawn.
Another instructive position is illustrated in the diagram ( $\Rightarrow$ ). After $1 . g 5 \mathrm{b4}$ it is White who, with check, promotes first, so Black will have to be carefinl. After 1. g5 he must play 1. ... Kd6, so that the pawn can be stopped with 2. g6 Ke7. If White plays 2. Kf6, Black can take part in the pawn race: 2. ... b4 3. g6 b3 4. g7 b2 5. g8Q (without check) 5. ... b1Q, drawing.
In some pawn races it may be important to shield off the enemy king.
In the diagram ( $\Omega$ ) White has to fight for a draw. Incorrect is 1 . a5 Kc5, which costs the pawn. Instead, the preparatory move 1. Kd6! shields off the black king. Note that 1. Kc6?, which also shields of $f$ the enemy king, will eventually run into an X-ray check on g2. Note, too, that if Black meets 1. Kd6! with 1. ... Kc4, White steps into the square of the g-pawn with 2 . Ke5.
The final example shows that it is also important to take the opponent's possibilities into account.


In the diagram ( $\mathfrak{\imath}$ ) the white pawn and the black pawn are equally far removed from their promotion squares. However, it looks as though Black will reach the promotion square first, since the white pawn is blocked by the king. If White carelessly moves aside his king with $1 . \mathrm{Kg} 5$, then Black will promote on cl with check and win the game. Show the students that the ensuing endgame of queen versus rook's pawn is a straightforward win. The correct move is $\mathbf{1}$. Kg6! After 1. ... c4 both sides will reach the other side of the board at the same time, while after 1. ... Kxh4 2. Kf5 White picks up the black pawn.
Summarizing, the following aspects are of importance in pawn races:

- the distance between the pawn and the promotion square;
- promoting with check;
- promoting with a subsequent tactical win (e.g. X-ray check or mate);
- both attacking and defensive actions of the king (square of the pawn, assisting, avoiding check, shielding off the enemy king);
- luring or chasing the enemy king to a fatal square.


## Practice

## Finishing a game position

Some pawn race positions are suitable for a simultaneous display format.
In the diagram ( $(\mathfrak{})$ the black king should be 'imprisoned' first, and after the pawn race White must go on to win the queen versus queen endgame: 1. Kf4! Kh3 2. d4 h4 3. d5 Kg2 4. d6 h3 5. d7 h2 6. d8Q h1Q 7.


Qd2+ (7. ... Kh3 8. Qe3+ Kg2 9. Qe2+ Kh3 10. Qg4+ and mate) Kg1 8. Kg3. Not that difficult. Note that other moves fail to win on account of the black king being inside the square of the d-pawn.

The position in the diagram ( $\mathbb{1}$ ) is rather more difficult. 1. Kd5 h5 2. Ke4! (not 2. Ke5? Ke3!) 2. ... Kf2 3. Kf4 Kg2 4. c5! (not 4. Kg5? Kg3! 5. Kxh5 Kf4) 4. ... h4 5. c6 h3 6. c7 h2 7. c8Q h1Q 8. Qc2+ Kh3 9. Qd3+ Kg2 10. Qe2+ Kg1 (or 10. ... Kh3 11. Qg4+ Kh2 12. Qg3\#) 11. Kg3.

Playing the correct moves from start to finish is quite a challenge. It goes without saying that the students should be given the opportunity to correct their mistakes, if any.

## Workbook

Pawn ending / Pawn race: A

## 曾

Explanation: The solutions involve rather lengthy sequences of moves. In some cases a pawn will have to make a number of moves in order to reach the other side of the board. The students have a choice: they can either note down all the moves, or they can note down the first moves only and indicate the end result (e.g. 1. a5 h4 2. a6 and White gives mate after promoting his pawn). Some of the positions require knowledge of queen versus pawn endings. In all positions White is to play and win.
Mistake: The suggested solution is incorrect.
Help: Ask the student to try and find and correct their mistake first. If this does not help, then play the game-position to a finish (or ask two students to do this) so as to indicate the mistake.
Mistake: Positions 3 and/or 12 are not solved correctly.
Help: $\quad$ The defending side can reach a lost queen versus pawn ending. In position 3 this yields a queen versus e-pawn (and hence a winning) endgame; in position 12 this yields
a queen versus c-pawn ending (which is generally drawn but not here, since the queen can occupy the promotion square). It is advisable to repeat the lesson 'queen against pawn' once more.

## $\square$ Pawn ending / Pawn race: $B$

## 宸寝

Explanation: See exercise sheet $A$. Sheet $B$ contains both winning and drawn positions.
Mistake: The drawn positions are lost.
Help: $\quad$ Why is it that the opponent wins? This is often because the opponent can promote his pawn with check. Make sure that this is impossible.
Mistake: Position 8 is not solved correctly.
Help: The solution starts with 1. a5 (see answer section). The queen versus pawn ending is drawn here (the c-pawn is on the $2^{\text {nd }}$ row and the White king is too far removed). After the correct 1 . Ke2 White is winning, since now the king is close enough.

## ANSWERS

Pawn ending / Pawn race: $A$

1) 2. g 7 a 2 2. g8Q alQ 3. $\mathrm{Qa} 8+$ (2. .. Ka3 3. Qg7)
1) $1 . \mathrm{f} 6 \mathrm{~h} 32 . \mathrm{f} 7 \mathrm{~h} 23$. f 8 QhlQ 4 . Qb4\# (4. Qa8+? Qxa8)
2) $1 . \mathrm{d} 7 \mathrm{e} 22$. d8Q elQ 3. Qa5+
3) $1 . \mathrm{g} 6 \mathrm{~h} 32 . \mathrm{g} 7 \mathrm{~h} 23$. g 8 Q h 1 Q 4. Qa2\#
4) $1 . \mathrm{b} 5 \mathrm{~h} 42 . \mathrm{Ke} 4!\mathrm{h} 33 . \mathrm{Kf} 3 \mathrm{~h} 24$. Kg 2
5) $1 . \mathrm{g} 6 \mathrm{~b} 32 . \mathrm{g} 7 \mathrm{~b} 23 . \mathrm{g} 8 \mathrm{Q} \mathrm{blQ} 4$. Qa8+ Kb4 5. Qb7+
6) l. h6 b2 2. h7 blQ 3. h8Q+ Kgl 4. $\mathrm{Qg} 7+\mathrm{Kfl} 5 . \mathrm{Qg} 2+\mathrm{Kel}$ 6. Qe2\#
$\square$ Pawn ending / Pawn race: B
7) 8. Kg7 (1. Kg8? e4 2. h6 e3
1) 2. Kc3 (of 1. Kd3 Ka3 2. g7 b2 3. Kc 2 Ka 2 4. $\mathrm{g} 8 \mathrm{Q}+$ ) 1. ... Ka3 2. g 7 b 2 3. g 8 Q blQ 4. Qa8\#
1) 2. d6 Kf6 2. d7 (2. h6 b3 3. d7

Ke7 4. d8Q+ Kxd8 5. h7 1-0) 2.
... Ke7 3. d8Q+Kxd8 4. h6 b3
5. h7 b2 6. h8Q+
10) 1. h6 c3 2. h7 c2 3. Kd2 Kb2 4. $\mathrm{h} 8 \mathrm{Q}+$
11) $1 . \mathrm{Kg} 5 \mathrm{e} 42$ 2. h6 e3 3. h7 e2 4. h8Q elQ 5. Qh4+
12) $1 . \mathrm{Kd} 7 \mathrm{c} 42$. a6 c3 3. a7 c2 4. $\mathrm{a} 8 \mathrm{Q}+\mathrm{Kc} 45 . \mathrm{Qa} 3$
3. h7 e2 4. h8Q; 1. h6? Kf7)

1. ... e4 2. h6 e3 3. h7 e2 4.
h8Q elQ 5. Qe8+
2) $1 . \mathrm{a} 6 \mathrm{e} 32 . \mathrm{Kd} 3 \mathrm{Kf} 33 . \mathrm{a} 7 \mathrm{e} 2$ 4. $\mathrm{a} 8 \mathrm{Q}^{+}$
3) 4. Kb6 (1. Kb5? f4 2. a5 f3 3. a6 f2 4. a7flQ+5. Kb6 Qf3) 1. ... f4 2 . a $51 / 2-1 / 2$
1) 2. Kc6 (1. Kd6? Kc4) 1....g5 2. a5 g4 3. a6 g3 4. a7 g2 5 . a8Q glQ 6. Qa7+
1) 2. Kd6 b5 (1. ... Kb8 2. Ke7 b5 3. d6 b4 4. d7 b3 5. d8Q+) 2. Kc7 b4 3. d6 b3 4. d7 b2 5. d8Q b1Q 6. Qd4+ Ka6 7. Qa4\#
1) 2. Kg6 (1. d5? Kf5; 1. Kf6? h4 2. d5 h3 3. d6 h2 4. d7 h1Q 5. d8Q Qh4+) 1. ... h4 2.
d5 h3 3. d6 h2 4. d7 h1Q 5. d8Q
1) 1.a7 (1. Kb7? h3 2. gxh3 gxh3 3.a7 h2 4. a8Q hlQ+; 1. Kb8 h3 2. gxh3 g3 3.a7 g2 4. a8Q giQ) 1.... h3 2. gxh3 g3 (2. ... gxh3 3. Kb8 h2 4. a8Q) 3. Kb7 g2 4. a8Q $\triangle 5$. Qg8+
2) 3. $\mathrm{Ke2} 2(\mathrm{l} . \mathrm{a} 5 \mathrm{c} 52 . \mathrm{abc4} 3 . \mathrm{a} 7$ c3 4. a8Q c2=) 1. ... Kb2 2. a5 c5 3. a6c44.a7c35.a8Q c2 6. Qb8+
1) $1 . c 6$
2) 3. Kc6 (1. Kd6? Kd8; 1. Kb6 Kd7 2. Kb7 e5)
1) 2. Kf2 Kh2 2. h6 g3+ 3. Kf3
1) 2. Kb6! $1 / 2-1 / 2$; 1. Kc6?


## Goal of the lesson

- learning endgame skills
- recognizing intermediate goals in the endgame


## Prior knowledge

- seventh-rank tactics
- eliminating the defender


## ACQUISITION

## Instruction

In this lesson we return to the topic of the $7^{\text {th }}$ rank. The chess player Nimzovich, in his famous book Mein System, already stressed the importance of the $7^{\text {th }}$ rank. A rook which controls the $7^{\text {th }}$ rank is a very powerful piece. In the upper part of the diagram ( $\Rightarrow$ ) the white rook has absolute control of the $7^{\text {th }}$ rank. Black's king cannot escape, and the a-pawn decides matters in a couple of moves: 1. a7, 2. Rb7 and 3. Rb8. In the lower part of the diagram the black rook does not have absolute control. After 1. ... b2 2. Kh2 Rc2 3. Rb1 White can draw by moving his king to c 3 across the third rank.
In the diagram ( $₫$ ) White, with the help of his advanced pawns, can confine the black king to the bottom rank. The black rook cannot move on account of the mate on the bottom rank. In the time that it takes Black to parry this threat, White's a-pawn is well on his way to become a queen: 1. a4 h6 (1. ... g6 2. h6 Kg8 3. a5 f6 4. a6 offers even fewer chances) 2. g6 fxg6 3. hxg6 Rd8 4.

a5 Kg8 5. a6 Kf8 6. a7 and the imminent promotion will cost Black his rook.
Sacrificing a pawn to gain absolute control of the $7^{\text {th }}$ rank is often a good investment. In the diagram ( $仓$ ) White and Black both have an advanced pawn; but whereas the white rook is very active, the black rook is not. White plays 1. e6, further increasing the activity of his rook. Note that there is no alternative, as 1. f7? Rf8 2. Kxh2 Ke7 is good for Black. After 1. ... dxe6 (taking the pawn is forced: 1. ... Re8 2. Rxd7+) 2. Rxa7 Re8 (not 2. ... Rh6 3. Ra8+ and 4. f7) 3. f7 Rf8 4. Kxh2 c5 5. Kg3 c4 6. Kf4 c3 (after 6. ... e5+ White can even take the pawn: 7. Kxe5 c3 8. Kd6 Kc8 9. Ra8+ Kb7 10. Rxf8 c2 11. Rc8) 7. Ke3 e5 8. Kd3; Black will lose both pawns, after which he will end up in Zugzwang.
We now consider a number of positions which take rather more effort to win. In the diagram ( $\Leftrightarrow$ ) White does not have a passed pawn. He does, however, have a rook in a dominating position. The black king on g8 must keep protecting h7 and is unable to escape from the bottom rank. In addition, the c7-pawn is under attack. The only way to protect this pawn is with 1. ... Rc8, since 1. ... c6 leaves b7 unprotected. Thus, while Black can avoid losing material, his pieces are tied up on account of his vulnerable pawns. White is better not because he has more material, but because his pieces are much more active. We call this a positional advantage (as opposed to a material advantage). If White wants to exploit this advantage he must activate his king and, if possible, create a passed pawn.
In the diagram ( $₫)$ White's position is also very good. White can play his rook to the

$7^{\text {th }}$ rank. This will force the black rook into a defensive role while Black's king must remain passive. White must continue with a king march to the centre of the board, after which he can create a passed pawn. Black can do little to prevent this. After 1. Rd7 b6 2. Ke3 there is nothing to prevent White from executing this plan. As a result of White's grip on the $7^{7 \mathrm{~h}}$ rank, combined with the tactical threat of $\mathrm{Rg} 7+$, Kh8 (with a mating threat), the white king can pretty much do as he pleases. The following two variations illustrate that there is not much Black can do: 2. ... Re8+ 3. Kd3 a5 4. Rg7+ Kh8 5. Rb7 winning a pawn, or 2. ... a6 3. b4 Rc8 4. Kd4 followed by 5. c5. White can also win a pawn with $2 . \mathrm{Rg} 7+$ Kh8 3. Rf7, but the problem here is that the rook is much less active on f6. In rook endings rook activity usually outweighs the loss of a pawn.
The position in the diagram ( $\Rightarrow$ ) is taken from the game Lilienthal-Dubinin, Moscow 1940.

White can win a pawn with 1. Qxf7+ Kxf7 2. Rd7+ Re7 3. Rxe7+ Kxe7 4. fxe4, but he will be unable to win this endgame on account of his doubled e-pawns. Rather, White preferred the positional advantage of a rook on the $7^{\text {th }}$ rank to the material advantage of an extra pawn. After 1. Rd7! Qxc4 2. bxc4 exf3 3. Kxf3 Ra8 a king invasion proved sufficient to win the game: 4. Ke4 Kh7 5. Kd5 Kg6 6. Kc6 Re8 7. Rxa7 Rxe2 8. Rd7 Rxh2 9. a7 Ra2 10. Kb7 and White soon won.

A rook invasion on the $7^{\text {th }}$ rank is not always successful. Sometimes the defender can chase away the rook by offering an ex-

change of rooks. In other cases the king can fulfil a useful defensive role.
In the diagram ( $\uparrow$ ) Black first protects the e-pawn with 1. ... Kf8 and then chases away the white rook with 2. ... Ke8. Note that 3. Rc7 loses the rook after 3. ... Kd8. The moral of the story is that a rook on the $7^{\text {th }}$ rank needs sufficient breathing space. The advantages of having a rook on the $7^{\text {th }}$ rank are crystal-clear. Thus, it will come as no surprise that gaining control of the $7^{\text {th }}$ rank is often worth the effort. Consider first a straightforward example.
In the diagram ( $\lrcorner$ ) Black gets a firm grip on the $7^{\text {th }}$ rank by first chasing away the defending piece: 1. ... Re4! (1. Rd5? 2. Ne6+) 2. Nc2 Re2.

A much more subtle strategy is required in the diagram ( $ß$ ). If White chases away the defending knight with the blunt I. c5 Black simply responds with I. ... Nd5. A better move is 1 . a4, although Black can prevent the invasion of the $7^{\text {th }}$ rank with $1 . \ldots$ Rcd8 2. a5 Nd7 3. Bd4 Kc8, with the intention of exchanging rooks after 4 . ... Nb8.
The correct move is 1. Bc3. Now Black cannot play 1. ... Rcd8 on account of 2. Rxd8 Rxd8 3. Rxd8 Kxd8 4. Ba5 Kc7 5. c5, winning a piece. Black's best option is to sidestep the pin with 1. ... Kb8. Now, after 2. Ba5 Na8 (after 2. ... Ka7 3. Bxb6+ Kxb6 4. Rd7 Rhf8 5. Ke4 Black can hardly move a piece) White can prepare the definitive invasion of the $7^{\text {th }}$ rank with the pretty 3. Bd8 (Black can counter the immediate 3. Rd7 with 3. ... b6 4. Bc3 Rc7). After this move Black can no longer prevent 4. Rd7, giving White a large advantage.


## Practice

## Finishing (game-)positions

Students will learn to master the subject matter of this lesson $-7^{\text {th }}$ rank and endgame strategy - best by playing game-positions to a finish (e.g. in a simultaneous display format). We take as out point of departure a number of easily-won positions (e.g. the diagram $₫$ ). We also introduce some rules regarding simultaneous play (don't touch the pieces, don't discuss the position with your neighbour, and skip your turn if you need more time). If after a couple of moves a player is not satisfied with his position (always check whether this is justified!), he can return to the initial position. At the end of the exercise it is important to go through the important aspects of the position with the students, and to ask them to verbalize these.


## Workbook

Strategy / Seventh rank: A

## 曾

Explanation: This exercise sheet is not very difficult. In the first six positions the side that is to move can invade the $7^{\text {th }}$ rank with a (near-)decisive result. The opponent's defending pieces can easily be eliminated. In the last six positions the students are required to find a defensive resource. These include offering an exchange of rooks, chasing away the enemy rook or setting up a counterattack.
Mistake: The correct solution is not found.
Help: Play the position to a finish and indicate the relevant aspects to the student.
$\square$ Eliminating the defender / Luring away + mate: $A$兠
Explanation: This is a mixed exercise sheet with the theme: eliminating the defender by luring it away.

## ANSWERS

Strategy / Seventh rank: A

1) 2. Rd7 Rb8 2. Bd6
1) $1 . \ldots \operatorname{Re} 8+\Delta 2$... $\operatorname{Re} 7$
2) 3. $\mathrm{Rc} 7 \mathrm{Rb} 82 . \mathrm{Bg} 2$
1) 2. ... $\operatorname{Re} 8 \Delta$ 2. ... $\operatorname{Re} 7$
1) 2. Rd8+Kh7 2. Rd7
1) 2. ... Rc8 $\Delta$ 2. ... Rc7
1) 2. $\operatorname{Rc} 4 \Delta 2 . \operatorname{Rc} 7$
1) 2. Radl Rd5 2. c4
1) 2. ... Rc8 $\Delta$ 2. ... $\operatorname{Kf8} \Delta 3$. ...
Ke8
1) 2. Bb 6
1) 2. ... Rc8 2. $\mathrm{Rxb} 7 \mathrm{Rcl}+3 . \mathrm{Kg} 2$
1) 2. ... Rg8 Rc2+
$\square$ Eliminating the defender / Luring away + mate: A
1) 2. ... Rcl+ 2. Qxcl Qf1+
1) 2. Qa4+ Qxa4 2. Nc7+
1) $1 . Q x c 7+R x c 72$. Rxd8+
2) 3. Rd6 Qxd6 2. Qxf5\#
1) 2. ... $\mathrm{Qg} \mathrm{l}+2$. Kxgl Rel\#
1) 2. ... Qxh3+ 2. Nxh3 Nxf3 \#
1) 2. Qel+ Rxel 2. g3\# (1. ... Nxf3+0-1)
1) 2. ... Bh6 2. f4 Bxf4
1) 2. Qb5+ Qxb5 2. Nc7\#
1) 2. Ng 5 Qh 4 2. Qxe6+
1) 2. ... Qe4 2. $\operatorname{Rxd8} \operatorname{Rxd} 83$. Qxe4 Rdl+ (1. ... Qf5? 2.
1) 2. Qh6 Rxe7 2. Qf8\# Qe2)


## Goal of the lesson

- improving the knowledge and skills of discovered attack


## Prior knowledge

- moves that set up a discovered attack ('preparatory moves')


## ACQUISITION

## Instruction

There are two kinds of moves that help set up a discovered attack:

1) moves that set up the battery
2) moves that make the battery work

If there is not yet a battery present in the position, a battery can be set up by means of an attacking move or a move that gains a tempo. These preparatory moves are rather similar to the kind of moves that set up a double attack ('aiming'). The other types of moves that set up a discovered attack are 'preparatory moves', i.e. moves that make the battery work:

- removing a defending piece (eliminate the defender)
- moving an obstructing piece (clearing)
- attacking a target (luring, chasing)

We begin this lesson by repeating some points about batteries from previous Steps. Set up the diagram ( $(\checkmark)$ on a demonstration board, making sure to leave out the white king. Ask the students to identify the battery, the front piece, the back piece and the targeted piece. White wins the black queen with $1 . \mathrm{Bg} 7+$; this is a Step 2 -level question. The position with the king on f ,

however, is a Step 5 -level question. Now 1. Bg7+ is met by 1. ... Kh7, the point being that it is stalemate after 2. Qxe4. The right continuation is 1. Be3+ Qxe3 2. Qh4 mate. It is important to compare the concept of the preparatory move as used here with that introduced in Step 4.
We first consider some moves that help set up the battery.
In the upper part of the diagram ( $\mathbb{\cup}$ ) White plays 1. Nf8, leaving Black helpless against the threat of Ng6 mate. Setting up a battery usually involves a move that gains a tempo. The target of such an attacking move can be the king, a piece or a square.
In the lower part Black plays 1. ... Qd5+. White is forced to move his king to h2 or g1. In either case the front piece wraps up with 2. ... Nf3 + .
The diagram ( $\Rightarrow$ ) contains an example of a gain of tempo that involves an attack on a piece. With 1. Bb3 White sets up a winning battery. No matter where the black queen goes, she cannot hide from the imminent discovered check.
The diagram ( $\mathfrak{l}$ ) shows two examples of a mating threat. In the upper part White plays

1. Qg4, threatening mate on g7. Regardless of how Black parries this threat (with f 6 or g6), he will lose the queen after 2. Nxh6+. Many queens have been lost in this way, even by strong players.
In the lower part of the diagram Black's 1. ... Qd4 sets up both a decisive discovered check (2. ... $\mathrm{Na} 4+$ ) and a mate on b2. As a result, the rook on gl is beyond salvation. The search strategy for this form of aiming cannot be aimed at a battery, since there is no battery present yct. Rather, the strategy should be geared towards unprotected or

insufficiently protected pieces, at the possibility of a check, or at a mating threat. Aiming is a highly effective weapon.
Other types of preparatory moves are found in positions in which the battery is already present.
The theme in the diagram ( $\mathcal{v}$ ) is that of eliminating the defender. The battery that is formed by Bg 2 and Rf 3 does not yet lead to a material gain. At the moment the only attacking target is the unprotected e5-pawn. After 1. Rf5 Rad6 2. Rxe5 Bxg2 3. Rxd6 Rxd6 4. Kxg2 all White has achieved is restore the material balance. The rook does not yet have another attacking target. But this soon changes after 1. Rxd5 Rxd5 2. R18+. With the rook capture on d5 White has eliminated the piece that is defending against a check on 88 .
In the diagram ( $\rightarrow$ ) we see a battery on the d-file. The battery works properly only if Black removes his other piece from the dfile with gain of tempo. Ask the students to analyze the various options. It will turn out that 1. ... Bh2+ 2. Nxh2 Nxc3 3. Qc2 does not yield anything. The correct move order is $1 . \ldots$ Nxc3, which leaves White a choice between losing a queen after 2. bxc3 Bh2+ and losing an exchange after 2. Qc2 Nxe4. The preparatory move in this case concerns an example of clearing.
Preparatory moves that involve luring were already covered in Step 4. The diagram ( $\Omega$ ) contains an example of this type of move. White would like to pin Black on the $8^{\text {th }}$ rank. He cannot achieve this with 1. Rxa6+ bxa6 2. Th8 B18, since the f6-rook gives Black the option of playing Bf8. For this reason White should lure the rook away by 1. Rh8 Qxh8 2. Rxa6+.


Chasing is even more forceful than luring. In the lower part of the diagram we see a battery on the $2^{\text {nd }}$ rank. The only problem is that the c-pawn does not yet have an attacking target. With the help of a check on a2, the rook chases the king to a square that is within reach of the c-pawn. If Black plays 1. ... Kxb4 then 2. c3+ decides, while after 1. ... Kb5 2. c4+ picks up the queen.
In the diagram ( $\uparrow$ ) we can see an example that involves luring and chasing.
The battery $\mathrm{Bc} 5 / \mathrm{b} 4$ does not work properly yet; after all, Black will not voluntarily play his queen to a 3 . $\ln$ order to make the battery work White must force Black into Zugzwang (see also lesson 2 of this Step). Black's king cannot play and after 1. Na3! the black queen does not have much choice either. Black must take on a3, after which the queen is lost: 1. ... Qxa3 2. b5+.
In the diagram ( $\Rightarrow$ ) the battery helps White to escape with a draw. After 1. Ne4+ Black will have to move his king to h5, since a king move to h 3 or g 4 runs into a knight fork on f2. After 1. ... Kh5 the knight returns to f6 with check and Black is once more forced to expose his king to the battery. This time, however, Black can try something different: 2. Nf6+ Kg5. Now 3. Nd5+ is the right way to give discovered check. Here, too, Black has nothing better than 3. ... Kh5, since any other king move runs into a knight fork on e3.

## Search strategy

When doing the exercises in the workbook the students must find a battery that does not work yet and try to make it work by means of the right preparatory move. If the position does not have a battery yet, then
proper orientation is more difficult. In such cases the students should be on the lookout for a check or for an unprotected piece; a battery can often be set up by a check or by attacking an unprotected piece.
In the diagram ( $\uparrow$ ) there are two batteries. While the rook-knight battery on the f-file does not appear effective, White does have a chance to exploit the battery of knight and queen. Note, however, that the direct 1.
 $\mathbf{N h 5 +}$ is premature because the black queen is protected ( $1 . \ldots$ gxh5 2. Qe4 is met by 2 . ... Th8). With the preparatory move 1. c4 White removes the protection of the queen and thus wins material.

## Reminder

$\diamond$ Discovered attack

## Practice

## Workbook

## $\square$ Discovered attack / Preparatory move: $A$宸

Explanation: After the correct preparatory move (chasing, eliminating the defender, clearing or aiming) the battery can be used to win material.
Mistake: The correct preparatory move is not found in positions in which there is no battery present yet.
Help: $\quad$ The search strategy in such positions (i.e. positions $1,3,4$, 7 and 12) is rather difficult. The last two positions are particularly hard. The correct preparatory move involves giving check (positions 1 and 3 ), a mating threat (position 12), an unprotected piece (position 4) or a piece whose protection can be eliminated (position 7).
Mistake: The suggested solution is incorrect.
Help: $\quad$ Why is the suggested solution incorrect? Ask the students to try and find this out themselves. Where is the battery? Why doesn't it work? Does the battery lack an attacking
target？Then chase it away！Is the target protected？Then eliminate the defender！Is one of your own pieces in the way？Then clear it away！

## Discovered attack／Preparatory move：B 宸曾

Explanation：See exercise sheet A．
Mistake：Positions in which there is no battery present yet are not solved correctly．
Help：$\quad$ The search strategy in such positions（positions 2， 4 and 12 ）is rather more difficult．The preparatory move involves a mating threat（positions 4 and 12）or a valuable piece that can be exposed to the battery（position 2）．
Mistake：Position 12 is not solved correctly．
Help：$\quad$ Check whether position 12 of the A－sheet has been solved correctly，and then establish a link between that position and the present position．A straightforward example of this kind can be found in the Instruction．

## Double attack／Discovered attack：A幽

Explanation：In students＇games the discovered attack ranks highly on the list of missed chances，no doubt because this type of attack is indirect．A lot of practice is required，and for this reason there are two extra Step 2－level exercise sheets with discovered attacks（some of the positions on these sheets are rather more difficult）．
Mistake：The suggested solution is incorrect．
Help：Ask the student to show where the battery is，and ask him to find an attacking target for the front piece．＂Can you give check？Can you attack an unprotected or an important piece？Can you capture a piece？Can you threaten mate？ With this step－by－step approach most students will be able to find the correct answer．
Mistake：（Too）many mistakes．
Help：Go through the subject matter once more．

## Double attack／Discovered attack：B 宸宸

Explanation：See the previous exercise sheet．
Mistake：The suggested answer for position 2 is 1 ．Rf8．
Help：The position resembles one in which 1．Rf8 is indeed the right move．Position 2 is tricky．Ask the student to try and
find a mating patterm in the initial position with queen and bishop.

## ANSWERS

Discovered attack / Preparatory move: A

1) 2. Qe6+ Kh5 2. Nf6+ (2. $\mathrm{Ng} 3+? \mathrm{Qxg} 3$ )
1) 2. Be 7 Re 8 2. Bb 4
1) $1 . \ldots \mathrm{Rel}+2 . \mathrm{Kh} 2 \mathrm{Ng} 4+$
2) I. Rxe5 dxe5 2. Nxf6+
3) $1 . \ldots \mathrm{Qcl}+2 . \mathrm{Kh} 2 \mathrm{Nfl}+$
4) 5. ... b5 2. Nd2 Ng4+
1) 2. ... Nc2 2. Rbl Nel
1) 2. axb7 Qxb7 2. Nf6+
1) 2. Qxf5 exf5 2. exd6+
1) 2. ... Rcl+ 2. Rxcl Bxb2+
1) $1 . \ldots \mathrm{Qxfl}+2$. Bxfl Bxa2+
$\square$ Discovered attack / Preparatory move: B
2) 3. Rxe6+fxe6 2. Bxg6+; 1. ...
1) 2. Nxd5 exd5 2. e6
Bxe6 2. Bb5+
1) 2. Bxc6 Bxc6 2. Nd5
1) 2. Nd6 Rf8 2. Nxc8
1) 2. ... Nxd5 2. exd5 exf4
1) 2. $\mathrm{Rxg} 7+\mathrm{Kxg} 7$ 2. f6+ Qxf6 3. Qxh7 \#
1) $1 . \mathrm{Qf} 5 \Delta 2$. Nxf6 + .
2) 3. ... g5 2. Qc4 Bf3+
1) 2. Rd8+ Bxd8 2. e7+
1) 2. Rxd5 exd5 2. Qg4; 1....
1) 2. Bc5 Bxc5 2. Bxh7+
Qxd5 2. Nxe7+
1) 2. ... b4 2. Nbl Bxh2+

Double attack / Discovered attack: A
I) 1. Nf5 (1. Nc6? Qxe3+)
6) $1 . \mathrm{Bg} 7$
2) 1. ... Rxf3 2. Qxh6 Rfl\#; 2.
7) 1. Nf5 exf5 2. Rxd8
Bxf3 Qxd2
8) 1. Bc6; 1. Bxb7? Qb6+
3) 1. cxd5 Bxd5 2. Ba6+
9) 1. ... Re4 2. Qxe4 Qh7\#
4) 1. Bb5 Qxb5 2. Qh7\#; 1....
10) 1. Nd5 exd5 2. Qh8\# hxg5 2. Bxd7
11) 1. Nxe5 Bxdl 2. Bxf7\#
5) 1. Bg 8 Qxg 8 2. $\mathrm{Rxd8}$; 1.... Rxd2 2. Qh7\#
12) 1. ... Bfl 2. Rxfl Rxcl

## Double attack / Discovered attack: B

1) 2. Nb5 Qxd4 2. Nd6\#
1) 2. Ra 4 Qc 8 2. Rxa7+; 1. Rf8 Qc8
1) 2. ... Nf3 2. Nxd6 Rxh2\#; 2.
gxf3 Qxh2\#
1) $1 . \mathrm{Nf} 4 ; 1 . \mathrm{Ne} 7$ ? Kxe 7
2) $1 . \ldots \mathrm{Ne} 4 ; 1 . \ldots \mathrm{Qxf} 2+2$. Kxf2 $\mathrm{Ne} 4+3$. Ke 2
3) 4. ... Nf6; 1. ... Nxe5? 2. Nxe5
1) 2. ... Nc4!; 1. ... Nxe4 2. Qc8+
1) 2. ... Nb4 (1....Nd4? 2. Qa6) 2. Qxb7 Nxa2\#
1) 2. Nd 5 Qg 4 2. $\mathrm{Nxf} 6+$
1) 2. ... Nd3 2. Rxb7 Rcl\#; 2.

Rdl Nxe5
11) 1. Rxc7+ Kxc7 2. Rc5+
12) 1. ... Nc7 $\Delta$ 2. ... Rxb2


## Goal of the lesson

- learning pin-related tactical skills


## Prior knowledge

- pin (pinning, attacking a pinned piece, a pinned piece is not a good defender, placing the front and the back piece)


## ACQUISITION

## Instruction

In pins the preparatory move is not limited to the placing of the front or the back piece (see Step 4, lesson 6). A preparatory move can also implement the 'pin' itself, create an 'attack on a pinned piece' or exploit 'the limited function of the pinned piece'. In our discussion of the double attack we introduced a number of different types of preparatory moves: luring, chasing, aiming, clearing and eliminating the defender. In pins, luring and chasing effectively involve the placing the front piece or back piece. If we consider the other types of preparatory moves then a number of different scenarios can be distinguished (the following list is intended for trainers only!).
Preparatory move:

- aiming + pin
- aiming + attack on a pinned piece
- aiming + a pinned piece is not a good defender
- eliminating the defender + pin
- eliminating the defender + attack on a pinned piece
- eliminating the defender + a pinned
piece is not a good defender
- clearing a square/line + pin
- clearing a square/line + attack on a pinned piece
- clearing a square/line + a pinned piece is not a good defender
It is not necessary (and indeed confusing) to go through all twelve possibilities. What the students should be able to do is to recognize the different kinds of preparatory moves and understand why they are played. The number of examples to be discussed should depend on the level of the group. In the left part of the diagram ( $\mathbb{0}$ ) White plays 1. Bd4+ and, after Black's king has moved, continues with 2. Bb6, winning the exchange (aiming + pin). The check gives White the decisive gain of tempo.
In the right part Black wants to attack the pinned bishop once more. With 1. ... Rh8+, the g8-rook lends a hand by giving check first and by attacking the bishop on e6 next (with 2. Rh6) (aiming + attack on a pinned piece).
In the diagram ( $\Rightarrow$ ) a direct attack on the pinned b 7 -rook is useless, since 1 . Rbl can be met with 1. ... Ra7. It is much better to give check with 1. Rf7+, after which White is free to take the bishop on e7. By doing so White exploits the pin against the b7rook (aiming + a pinned piece is not a good defender).
The theme in the diagram ( $\S$ ) is that of eliminating the defender. In the left part pinning with $1 . \ldots \mathrm{Rcl}$ is premature on account of the defending knight. For this reason, Black first plays 1. ... Rxd3. After 2. exd3 he goes on to pin the white queen with 2. ... Rc1 (eliminating the defender by luring it away +pin ). Note, incidentally,

that 2. Qxd3 also runs into Rc1+.
In the right part of the diagram White plays

1. Rxf4, which opens up the g-file. After the forced 1. ... gxf4, 2.f6 nets the pinned bishop (eliminating the defender by luring it away + attack on a pinned piece).
In the diagram ( $\uparrow$ ) White first eliminates a defender, this time by luring it away. After 1. Nxc5 Black's rook has too much on his plate. It must recapture on c5, but this means relinquishing the protection of the b4-knight. Hence, after 1. ... Rxc5 2. Rxb4 White has won a piece.
In the right part Black chases away one of the defenders of Bf4 with 1. ... h5. After 2. Rg5 Black exploits the pin on Rf3 by 2. ... Rxf4. Both parts of the diagram therefore contain an example of eliminating the defender + a pinned piece is not a good defender.
Consider next some preparatory moves that involve clearing. In pins the most common form of clearing is clearing a square. This involves moving away a piece - with gain of tempo - so as to pin an enemy piece or to exploit a pin.
In the left part of the diagram ( $\Leftrightarrow$ ) White plays 1. Nb5, thereby attacking the rook and threatening 2. Ra3 (clearing a square + pin).
In the right part of the diagram White plays
2. Rh6, threatening to take on h5 and to win the pinned knight on f 7 with 2. f6 (clearing a square + attack on a pinned piece).
In the diagram (ß) White plays 1 . Nc7 so as to meet a queen move with 2. Re8+. By doing this White exploits the pin on the f7bishop (clcaring a square + a pinned picce is not a good defender).


This concludes our overview of pin－related preparatory moves for the time being． While other types of preparatory moves can readily be imagined（e．g．pin + pin）， the students＇knowledge of double attacks and pins will allow them to recognize such moves without further instruction．

## Practice

## Workbook

$\square$ Pin／Preparatory move：$A$

## 紧

Explanation：The search strategy for the exercise sheets is simple：find a （potential）pin and decide on the appropriate preparatory move．The types of preparatory moves include clearing， eliminating the defender（these come in various forms）and aiming．
Mistake：The correct solution is not found．
Help：The positions in which there is no pin yet are particularly difficult．Give a hint as to which piece is involved in the imminent pin．
$\square$ Pin／Preparatory move：B 㘳営
Explanation：See exercise sheet $A$ ．
Mistake：The suggested solution is incorrect
Help：Indicate the appropriate type of preparatory move．
Mistake：Position 12 is too difficult．
Help：$\quad$ This position is nasty．The solution is based on the limited mobility of the rook on e5．Point this out to the students．It may also be useful to set up the position without Rcl and Rd8．

## ANSWERS

$\square$ Pin／Preparatory move：$A$
1）1．cxd5 exd5 2．Nxd5
5）1．Qc8 +Ke 7 2． Rxd 5

2）1．Nh6 + gxh6 2．Rg3
6）1．Bdl $\Delta 2$ ．Rb3 of 2 ．Bxh5
3）1． $\mathrm{Ra} 3 \mathrm{Nb} 42 . \mathrm{Ra} 7$
7）1．Rxf6 Qxf6 2．d6＋
4）1．Rxe6 fxe6 2．Rf3
8）1．．．．Rxc5 2．Qxc5 Rxb3 \＃
9) 1. $\mathrm{Bb} 3 \Delta 2$ 2. $\mathrm{Bxd5}$ of 2 . Qxe4
10) 1. ... $\mathrm{Ng} 3+2$. hxg3 Qh5+
11) 1. ... e4 2. Ng 5 e 3
12) 1. ... Nc4 2. Rxc4 Qxe5

Pin / Preparatory move: B

1) 2. Nd 5
1) 2. Qxe7 Rxe7 2. Bf5
1) 2. $\mathrm{Nxe} 5+\mathrm{fxe5} 2 . \mathrm{Bg} 3$
1) 2. Qe4+ Kh8 2. Rb7 (1. Rb7? Qxb7)
1) $1 . \ldots \mathrm{Bb} 22$. Rc 2 Bd 4
2) $1 . . . . \mathrm{Ral}$
3) 4. Qf5 Nf6 2. h5
1) $1 . \mathrm{d} 5 \Delta 2 . \mathrm{Qd} 4$
2) 3. ... Qc5 2. Bb3 e5
1) $1 . \ldots$ Bh6 $\Delta 2$.... Re8
2) $1 . . . . \mathrm{Ra} 2$ !
3) 4. $\mathrm{Qf} 3 \Delta 2$. Qc 3


The opening

## Goal of the lesson

- learning to recognize and use weapons and targets in the opening


## PRIOR KNOWLEDGE

- structure, tension, demolishing (the opponent's pawn structure)


## ACQUISITION

## Instruction

In the opening, pawns and pieces should work together. The pawns form the basic structure around which the pieces can be placed. Together, they control squares and take squares away from the pieces of the opponent (for the terms structure, tension and demolishing, see also lesson 4).
In the diagram ( $\Rightarrow$ ) White and Black have for the time being fixed the pawn structure. Although the pawns exert an influence in the centre, the symmetrical pawn structure and the lack of tension between the pawns ensure a calm battle. A characteristic game in which this pawn structure arises is the following: 1. e4 e5 2. Nf3 Nc6 3. Be4 Bc5
4. d3 Nf6 5. Nc3 d6 6. a3 Nd4 7. Nxd4 Bxd4 8. Be3 Bxe3 9. fxe3 c6 10. 0-0 0-0 11. Qd2 Be6 12. Bxe6 fxe6 13. Rf3 a5 14. Raf1 Qb6 15. Nd1 Nd7 16. Rxf8+ Rxf8 17. Rxf8+ Nxf8 with a completely equal position (diagram $\Omega$ ).
In this game both sides could focus all their attention on piece play. It is much better to introduce tension between the pawns. This is the best way to create weaknesses in the opponent's pawn structure.


Many players dislike tension. Among them the player who played with the black pieces in the following game:

Prameshuber- Marmoud, Lucerne 1953

1. e4 e5 2. Nf3 Nc6 3. Nc3 Be7 4. d4 exd4 5. Nxd4 Nxd4

This capture is bad. Now White can bring his queen out with gain of tempo.
6. Qxd4 Bf6 7. e5 Be7 8. Bc4 d6 9. 0-0 (diagram $\mathbb{\bullet}$ )
Maintaining the tension suits the attacker. Note that White can also convert his lead in development into a material advantage: 9 . exd6 Nf6 10. Bf4 Bxd6 11. 0-0-0 0-0 12. Bxd6 Qxd6 13. Qxd6 cxd6 14. Rxd6. Here White has an extra pawn, but Black can bring all his pieces into play.
9. ... dxe5 10. Qxe5 Nf6

The alternatives are equally bad:
A: 10. ... f6 11. Qg3 Kf8 12. Rdl Bd6 13. Bf4
B: 10. ... Kf8 11. Rdl Bd6 12. Bg5 Qe8 13. Qxe8+ Kxe8 14. Nb5
11. Rd1 Bd7 12. Rel c6 (diagram $\Rightarrow$ )
12. ... Kf8 would have been better, though White clearly has the upper hand.
13. Bg5 Kf8 14. Rad1 h6 15. Bxf6 gxf6 16. Qh5 Rh7 17. Bd3 Rg7 18. Bf5 and Black is dead lost.

For both White and Black it is important to try and maintain the pawn structure for as long as possible:

1) With pawns you can control squares (and in particular central squares).
2) Pieces can safely be brought into play behind the wall of pawns.
Sometimes it may be necessary to relcase tension in the opening; but in such cases all

the pieces have usually been brought into play already.
A variation from the Ruy Lopez illustrates this point.
After 1. e4 e5 2. Nf3 Nc6 3. Bb5 d6 4. d4 we arrive at the position in the diagram ( $\mathbb{C}$ ). White is threatening to take on e5 (Black must also take a possible d5 into account). Taking on d 4 is not fatal, but it does help White to complete his development: 4. ... exd4 5. Qxd4 Bd7 6. Bxc6 Bxc6 7. Nc3 Nf6 8. Bg5 Be7 9. 0-0-0. For this reason 4. ... Bd7 is best. Now 5. Bxc6 Bxc6 6. dxe5 dxe5 7. Qxd8+ Rxd8 8. Nxe5 Bxe4 does not give White anything.
White therefore protects the e4-pawn with 5. Nc3, and Black maintains the tension with 5. ... Nf6. Now, again, capturing on c6 does not promise White anything.
Both sides continue their development: 6. 0-0 Be7 7. Rel and only now does Black have to release the tension with 7. ... exd4 (diagram $\Rightarrow$ ). Note that at this point Black has nearly completed his development.
Smart alecs who think that Black can avoid losing a pawn with 7. ... 0-0 are not right. For those who are interested, the following variations illustrate why:
7. ... 0-0 8. Bxc6 Bxc6 9. dxe5 dxe5 10. Qxd8 (diagram §) and now
A: 10. ... Raxd8 11. Nxe5 Bxe4 12. Nxe4 Nxe4 13. Nd3 f5 14. f3 Bc5+ 15. Nxc5 Nxc5 16. Bg5 Rd5 17. Be7 Re8 18. c4 winning material.
B: 10. ... Rfxd8 11. Nxe5 Bxe4 12. Nxe4 Nxe4 13. Nd3 f5 14. f3 Bc5+ 15. Kf1 Rf8 16. Ke2! (16. fxe4? fxe4+ 17. Nf4 g5) and White wins material.

For both sides it is important to attack and

demolish the opponent's pawn structure.
During the opening a choice must be made regarding the pawn structure:

- Choosing for structure against structure (diagram $\uparrow$ ).
Both sides determine the position of their pawns immediately. This often introduces tension to the position. As a result, the pawn structure can change at any moment during the game. Releasing the tension by capturing is good only if the pawn structure changes to your advantage. If not, then the structure should be maintained.
- Choosing for flexibility against structure (diagram $\Rightarrow$ ).
White has opted for a central formation, which Black will have to attack sooner or later. Black can do this in a number of ways: by playing a pawn to c 5 or e5; by placing pieces on the d-file (queen and rooks), on the $\mathrm{g} 7 / \mathrm{d} 4$ diagonal (bishop) and on c6 (knight). White must try to maintain his central pawns so as to keep his grip on the centre.
From this moment on the concepts of pawn
 structure and tension can be included in the discussion of the students' games. Students have problems maintaining tension: even at Step 5-level many of them tend to release all tension between pawns in a position.


## Practice

## Workbook

## $\square$ Test/Mix: $F$

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Explanation: The themes of the exercises on this sheet have been taken from both this and previous Steps. The results that have thus far been obtained for mixed exercises will indicate the
amount of explanation that is required. It is a good idea to solve the first couple of exercises together.
Mistake: The correct solution is not found.
Help: A search strategy is necessary if a student fails to find the solution through recognizing the type of position involved. Ask the student to name the characteristics of the position and then ask him the appropriate strategy for solving it. This will guide most of the students in the right direction. If these pointers fail, then specific questions are in order. The kind of questions depend on the theme of the exercise concerned (the themes are indicated in the 'ANSWERS' section).

## $\square$ Test / Mix: G <br> 宸宸 <br> Explanation: See exercise sheet F .

## ANSWERS

Test / Mix: F

1) 2. Rc8+ Bxc8 2. Nc6+ (mating pattern: ๗®)
1) 2. Rd4 Ba5 2. Rxa4 (pin: placing the front piece)
1) Drawing
2) Drawing
3) 4. Qh8+ Bxh8 2. Rxh8+ (Xray check)
1) $1 . \ldots$ b4 (attack on a pinned piece)
2) 3. Qe2 Qe7 2. Nd5 (pin)
1) 2. ... h4+ 2. Nxh4 Bel+ (luring away + mate)
1) 2. Rxf6 Kxf6 2. Bxg5+; 1. ... Qxf6 2. Nh5+ (double attack: luring)
1) 2. Rbl Rxc6 2. dxe8Q+ (cashing in on a passed pawn)
1) 2. Ne6 Qxe5 2. Rh3\# (discovered attack)
1) 2. ... Ne3 2. fxe3 Bxe3+ (mate through access)

## Test / Mix: G

1) $1 . . . \mathrm{Rh} 6$ (pin)
3. $\mathrm{Rb} 8+$ (mate)
2) $1 . \ldots \mathrm{Qxf} 2+2 . \mathrm{Kxf} 2 \mathrm{Be} 3+3$.
3) 4. Bxe6+ Qxe6 2. Nh6+ Kg7

Kfl Nxg3\# (mating pattern:
bishop + knight)
3) 1. Rb8+ (luring away + material/mate)
4) 1. Qg6 + Bxg6 2. hxg6 +Kg 8
3. d5+ (discovered check)
6) 1. Nd5 cxd5 2. Qxd5+ and 3. Qxa8 (double attack)
7) 1. e5 fxe5 2. Nxe5 (double attack)
8) 1. Ng6+ fxg6 2. h3 (trapping)
9) 1. Qh5 (luring away + mate)
10) 1. Qxe4+ fxe4 2. Bxe4\# (mate thanks to X -ray)
11) 1. ... Rd6 (pin)
12) 1. ... Nf4 (double attack: knight)


Rook against pawn

## Goal of the lesson

- learning endgame skills (piece cooperation)
- learning to recognize standard winning and drawn positions


## PRIOR KNOWLEDGE

- endgame strategy
- rook ending (shielding off, cooperation, active rook)


## ACQUISITION

## Instruction

In this lesson we will look in some detail at the cooperation between king and rook.
In the diagram ( $\Rightarrow$ ) White is a rook against a pawn up. In order to win he must get hold of the pawn. The rook is unable to do this on his own; the king will have to assist. A possible variation is $\mathbf{1 . ~ K b 5 ~ g 3 ~ 2 . ~ K c 4 ~ K h 3 ~}$ 3. Kd3g2 4. Ke2 Kh2 5. Kf2 Kh1 (hoping for 6 . Rxg2 stalemate) 6. ... Rh8 mate. The pawn has been stopped.
The winning plan is straightforward and applies to all positions of this type: the king should be brought towards the pawn. In the example at hand White's win is guaranteed by a number of factors:

- The rook is ideally placed behind the pawn; from here the rook attacks the pawn and at the same time controls the promotion square.
- The king is able to approach the pawn unhindered.
That the assistance of the king is necessary is illustrated by the diagram ( $\mathfrak{\Re}$ ). Here the black king is positioned at the other side of

the pawn. After 1. Kb5 g3 2. Kc4 Kf3 3. Kd3 g2 4. Rf8+ Kg3 5. Rg8+ (otherwise the pawn will queen) 5. ... Kf2 White does not make any progress. The side with the pawn should try to shield off the enemy king at all cost.
The importance of shielding off the king is underlined by the diagram ( $\mathbb{\text { }}$ ). Students are tempted to play 1. ... Kdl here (a forward move that controls the promotion square). Now 2. Ke3 cannot be followed by 2. ... c2 on account of mate. 1. ... Kcl is also bad; the king blocks his own pawn, and this will eventually cost Black a tempo. White plays 2. Ke3 c2 3. Kd3 and the pawn is lost. The correct move is backwards. After 1. ... Kd3 White will be unable to win: 2. Rh8 c2 3. Rd8+ Kc3 4. Rc8+ Kd2.
Unfortunately, the side with the pawn has only two strategies: advancing the pawn and shielding off the enemy king. The side with the rook has a number of ways to counter the latter strategy. One is to choose the correct route for the king.
In the diagram ( $\Rightarrow$ ) the king should block the rook's file momentarily with the aim of positioning himself on the right side of the pawn. After 1. Kd6 d3 2. Kc5 Ke3 3. Kc4 d2 4. Kc3 the pawn is lost. However, after the hasty 1 . Ke6 d3 White has run out of useful moves. The game will end in a draw after 2. Rd7 Ke3 3. Kd5 d2 4. Kc4 Ke2.
The side with the rook can also drive off the enemy king if the rook and the king work together at the right moment.
In the diagram ( $(\Omega)$ we see that the black king is shielding off his white colleague. As a result, White will be too late after 1 . Kc2 f2 2. Re8+ Kf3. Hence, White must play 1. Re8+ Kf2 2. Kd2 Kg1 3. Rf8, after

which the pawn is lost.
The position of the rook relative to the pawn is of the utmost importance. The best position for the rook is behind the pawn. Second best is the promotion square itself. In both cases the rook attacks the pawn and controls the promotion square. This limits the possibilities open to the enemy king.
In the diagram (©) White can achieve no more than a draw if he brings his king in straightaway: 1. Kb7 c4 2. Kb6 c3 3. Kb5 c2 4. Kb4 Kd3 5. Kb3 Kd2. Note that the rook on el is somewhat awkwardly placed. Black can win a tempo by attacking the rook. White has an instructive manoeuvre with which he moves his rook to a better position with gain of tempo: 1. Rd1+ Ke3 2. Rc1! Kd4 3. Kb7 c4 4. Kb6 c3 5. Kb5 Kd3 6. Kb4 c2 7. Kb3.
Thus, the rook is optimally effective if it operates behind or in front of the pawn (on the promotion square). A rook that attacks the pawn from one of the sides of the board is only seemingly active, and a rook in this position is generally insufficient for a win. Let us consider a number of rook moves in the diagram ( $\Rightarrow$ ). White wins after 1. Rf8 (the same position is reached after 1. Kf6 f4 2. Kg5 f3 3. Rf8) 1. ... f4 2. Kf6 f3 3. Kg5 Ke3 4. Kg4 f2 5. Kg3 and the pawn drops. White also wins after 1. Rd1 f4 2. Rel+! (with the aim of playing the rook to the promotion square with gain of tempo)

2. ... Kd3 3. Rf1 Ke4 4. Kf6 f3 5. Kg5 $\mathrm{Ke} 3 \mathrm{6} . \mathrm{Kg} 4$ is winning.
Insufficient is 1. Ra8 f4 2. Ra4+ Ke3 3. Ke5 f3 4. Ra3+Ke2 5. Ke4 f2 6. Ra2+Kel
3. Ke3. White attacks the pawn and threatens mate. All the same, Black has a surprising escape: 7. ... flN!. With correct

play a rook versus knight ending will end in a draw. The knight promotion works for all pawns except rook's pawns.
In the diagram (©) 1. ... hiN+ fails to save Black. A knight in the comer of the board lacks sufficient manoeuvrability. White can pick it up with 2. Kf3. Note that 2. ... Kf1 runs into 3. Rd1 mate.
There is one scenario where the rook does not need the king's immediate assistance.
In the diagram ( $\Leftrightarrow$ ) the rook denies the king access to the promotion square. However, it should be noted that cutting off the king horizontally is successful only from the $5^{\text {th }}$ rank up. The white king has all the time in the world. After 1. Kb8 b3 White picks up the pawn with 2. Re3.

In sum, there are a number of rules for both the rook side and the pawn side:

## Rook side:

- The king must approach the pawn along the other side of the pawn on which the enemy king is positioned.
- The rook must be placed behind the pawn or in front of the pawn on the promotion square. Sometimes the rook can be better positioned with the help of a check or an attack on the pawn.
- Cutting off the pawn horizontally is successful only from the $5^{\text {th }}$ rank up (viewed from White's perspective).


## Pawn side:

- The enemy king must be shielded off.
- The pawn must be advanced.

Reminder<br>$\diamond$ Rook against pawn

## Practice

## Workbook

$\square$ Endgame／Rook against pawn：A

## 曾

Explanation：Ask the students to note down a sufficient number of moves．In this way it can easily be verified whether they have chosen the correct plan．It would go too far to have the students note down all the moves until the pawn is won．All positions in which White is to move are winning for White；the positions in which Black is to move should end in a draw．The students must discover this themselves．
Mistake：The suggested answer is correct，but the student has failed to indicate the best counterplay．
Help：Put the position on a board and play the defending side．

## Endgame／Rook against pawn：B <br> 宸寝

Explanation：See exercise sheet A．It is useful to play certain positions from this sheet to a finish．The trainer plays a position to a finish against one student，and then picks another student． A simultaneous format is suitable for smaller groups only． It is also possible to have the students play the positions against each other．
Mistake：Positions 6， 11 and 12 have not been solved adequately．
Help：Put the position（s）on a board and play to a finish．

[^0]Kf4? 2. Ke6 e3 3. Kd5 e2 4.
Kd4 Kf3 5. Kd3 Kf2 6. Kd2) 2. Kd6 Ke4! 3. Kc5 Kd3 (3. ... e2? 4. Kc4 Ke3 5. Kc3 Kf2 6. Kd2)
8) 1. $\mathrm{Kb} 7 \mathrm{Kc} 42 . \mathrm{Ka} 6 \mathrm{~b} 33 . \mathrm{Ka} 5$ Kc3 4. Ka4 b2 5. Ka3
9) 1. ... Kf2 2. Rf8+Kel! (1.... Kfl? 2. Ke3; 1.... Kf3? 2.

Endgame / Rook against pawn: B

1) 2. Rb7 (1. Kb7 Kb5 2. Ka7+ Ka5 3. Rb7) 1. ... Kc4 2. Kb6
1) 2. Rcl Kd 4 2. Kb 6 c 3 3. Kb 5 Kd3 4. Kb4 c2 5. Kb3
1) 2. Rel+ Kf3 2. Rdl Ke4 3. Kc7 d4 4. Kc6d3 5. Kc5 Ke3 6. Kc4
1) 2. Kbl!e3 2. Ra2+ Kdl 3. Ra8e2 4. Rd8+ Kel 5. Kc2 Kf2 6. Rf8 + Kel 7. Re8
1) 2. ... Ke4 (1. ... Ke3? 2. Rh2 c4 3. Kd5) 2. Kd6c4 3. Kc5 c3 4. Rdl c2 5. Rcl Kd3
1) 2. ... Kg4 2. Kc6 Kf4 3. Kd5 g4 4. Rb4+ Kf3 5. Rb3+Kf4
1) 2. Rd8+ Kc2 2. Re8 Kd3 3. Kf5 e3 4. Kf4

Rf8+)
10) I. Re5 Kf6 2. Rb5 g3 3. Rb3
11) $1 . \ldots \mathrm{Kf} 42$ 2. Rd8 Ke3 3. Kg 4 d 3 4. $\mathrm{Re} 8+(4 . \mathrm{Kg} 3 \mathrm{~d} 2)$ 4. ... Kf2!
12) 1. ... Kc5 (1. ... b4 2. Rd5) 2. Kg 7 b 4 3. Kf6 b3 4. Rb8 Kc4 5. Ke 5 Kc 3 6. Ke4 b2
8) 1. $\mathrm{Kg} 4 \mathrm{Ke} 32 . \mathrm{Kg} 3 \mathrm{~d} 33$. Rel+
9) 1. Rb 7 (1. $\mathrm{Rc} 7+\mathrm{Kd} 42 . \mathrm{Rb} 7$ Kc4 3. Kc7 Kc5 4. Rb8 b4 5. Rb7 Kc4 6. Kb6 1-0) 1. ... b4
2. Kc7 Kc4 3. Kb6 b3 4. Ka5
10) 1. Rf6+ Ke3 2. Rg6 Kf4 3.

Rg8 g4 4. Kg6g3 5. Kh5
11) I. Rb4+ Kd5 2. Kb5 e4 3. Rbl! Kd4 4. Kb4 Kd3 5. Kb3e36. Rdl+
12) 1. Rf2+(I. Kc7 g5 2. Kd6 g4 3. Kd5 g3 4. Kd4 Kf4 5. Kd3 Kf3 6. Ra8 g2=) 1. ... Ke5 2. Rg2 Kf6 3. Kc7 g5 4. Kd6 Kf5 5. Kd5 Kf4 6. Kd4 g4 7. Rf2+

## Goal Of THE LESSON

- learning about strong squares
- cashing in on a strong square


## PRIOR KNOWLEDGE

- weak pawns


## ACQUISITION

## Instruction

Using the diagram ( $\Rightarrow$ ) we repeat the salient features of a strong square. Enemy pawns cannot exert a (direct) influence on a strong square. In addition, a strong square should be available for a piece. Ideally this piece is protected, preferably by a pawn.
In the diagram there are two squares that fit this description, i.e. e4 and d5. The knight must therefore be played to c3. From there it can jump to both strong squares.
Strong squares can arise because of sloppy play on the part of the opponent, but they can also be actively enforced.
In the left part of the diagram (ß) White can create a strong square for his c4-knight by 1. cxd5. With this capture the pawn that controls c4 is removed.
It is also possible to eliminate the defender by luring it away, as is shown in the right part of the diagram. After 1. fxe5 fxe5 Black cannot control g5 with a pawn any longer.
If a position contains a strong square, it is important to try and occupy this square with a piece. A knight is admirably suited

for this purpose, although a bishop often does the job, too.
In the diagram ( $\mathbb{\bullet}$ ) d 5 is a strong square. The white rook clearly has no business on d 5 . The ideal piece is the knight, which can reach d 5 by means of Nf3-el-c2-e3-d5. A long journey to be sure, but well worth it! On d 5 the knight has a fantastic position. It is placed in the centre, from where it can support actions all over the board, in the centre as well as on both wings. A piece on a strong square is active and cannot easily be dislodged by the opponent.
In the diagram ( $\Leftrightarrow$ ) the black bishop on g 7 is hemmed in by the e5-pawn. Black must therefore activate this bishop, in particular because there are strong squares available on c5 and d4. For this reason, Black will have to play $\mathrm{Bg} 7-\mathrm{f8}-\mathrm{c} 5$. The general rule is: if you possess a strong square, then you should put one of your pieces on it.
In practice things are not always as ideal as is suggested here. The opponent can for instance try to exchange the strong piece.
In the diagram ( $(₫)$ White has just moved his knight from e3 to d5. Black now plays 1. ... Be6. With this move Black aims to capture the knight on d 5 . We know that in such cases there are two options: protecting the knight with another piece (which is not possible here) or moving the knight away temporarily and returning it to d 5 at a later point in the game. Unfortunately for White, retreating the knight to e3 will lose the a2pawn, while after 2. Nb4 Black can further harass the knight with 2. ... a5. This shows that the knight jump to d 5 was premature. White should have prepared this move with 1. a3 or 1. b3 first.

Before occupying a strong square it is vital

to ensure that the opponent cannot trade the piece in question.
The situation in the diagram ( $\widehat{0}$ ) suits the side that is occupying the strong square. White is threatening to exchange the strong knight on e5. Black can support this knight with Nf6-d7. If White takes on e5, then the d7-knight will simply replace the captured knight, and the strong square will still be in Black's hands. Exchanging the strong piece is usually the only option that is available to the defender.
In the diagram $(\Rightarrow)$ Black will need to think ahead. White is threatening to exchange the knight that is defending d5 with 1. Bxf6. Black must keep this knight on the board with 1. ... Ng8. After 2. Bxe7 Nxe7 Black will still have a weakness on d 5 , but it has become harder for White to exploit it.

## Summary

- Sometimes you can actively enforce a strong square.
- If you have a strong square available, try to occupy it with a piece (preferably a
 knight, although a bishop will also do).
- Try to support a piece on a strong square with another piece.
- Try to capture pieces that your opponent can use to trade a piece that occupies a strong square.


## Reminder

Strong squares

## Practice

## Playing (game-)positions

All positions on the excreise shect 'Strong square' lend themselves to a simultaneous
format. Just having a strong square does not yield any points; rather, the students must learn to exploit the greater activity of pieces on strong squares.
The following two positions are suitable for playing to a finish. The first position is from Rytshagov-Nico Vink, Dieren 1997 (a Russian grandmaster against a (then) junior player from the Netherlands - see diagram $\uparrow$ ).
The game continued as follows:

## 1. Rd1 Rc6 2. b4 f6 3. h4 Qd7 4. g4 Bd8

5. Rg2 h6 6. Rdg1 Rf7 7. Rh2 Be7 8. g5

Kh8 9. gxh6 gxh6 10. Qh5 Bf8 11. Rhg2 Bg7 12. Rxg7 1-0.
The knight on d 5 gives White a large advantage. White must try to add another advantage to this. In the game White opted for a kingside attack.
In the second game-position the action takes place on the queenside (diagram $\Rightarrow$ ). White has no business on the kingside. His knight is ideally placed on d 5 . What White has to do now is increase the activity of his king and rook. White's rook does not have much of a future on the d-file, since the pawn on d6 is sufficiently protected. One possible continuation is:

1. Ral Rb8 2. b4 Rb7 3. a4 f6 4. axb5 axb5 5. Ke2 Kf7 6. Kd3 g6 7. c4 bxc4+ 8. Kxc4, after which the b-pawn can advance more or less unhindered. It will probably take the students a while before they will play this surprising move.
These two game-positions easily take up a full hour.


## Workbook

## Strategy／Strong square：A <br> 

Explanation：The students are asked to play the best move．Everything in this exercise revolves around the strong square．The possibilities include：
－create a strong square
－secure a strong square by eliminating（a）defender（s）
－find a route towards a strong square（the correct route） －prevent a piece of the opponent to reach a strong square
Mistake：The student does not play the best move．
Help：In a positional exercise like this one，not playing the best move usually retains the advantage．In position 4 White is also better after 1．Nd5．Tell the students that White has an even better continuation．
Mistake：The suggested answer is incorrect．
Help：Ask the student to motivate his answer．Give credit to the positive aspects of the suggested move，but also indicate why this move is not the best one．
Mistake：The correct solution is not found．
Help：Which aspects of the position has the student taken into account？Adapt the questions to this．Possible questions include＂Which open file is important？Who is controlling that file？Can you eliminate the defender（s）？＂

## Eliminating the defender／Luring away＋mate：B 宸細

Explanation：This sheet contains a mixed set of exercises with the theme：eliminate the defender by chasing or luring it away．

Test／Mix：H
宸背
Explanation：The themes of these exercises have been taken from previous lessons（including those from previous Steps）．
Mistake：The suggested answer is incorrect．
Help：Using the workbook，return to the topic in question and point out a similar exercise．＂How did you solve this exercise？＂
Mistake：The suggested answer is incorrect．
Help：$\quad$ See the relevant lesson for specific pointers． The themes of the exercises can be found together with the answers in the＇ANSWERS＇section．

## ANSWERS

Strategy / Strong square: A

1) 1.... Bxb3 (create a strong square on d4)
2) $1 . \mathrm{e} 6 \mathrm{fxe} 62 . \mathrm{Ne} 5$
3) 4. a5 (secure strong square c4
and gain control of b6)
1) 2. ... Bf8 2. Nc2 Bh6 (prevent knight from reaching [d5?])
1) 2. Bxf6 Bxf6 2. Bd5
1) $1 . \ldots$ b4 (preventing Bxf6 followed by Nd5)
2) 3. Bd5 (exchange defender of d5)
1) 1 .... f 3 (strong square on f 4 )
2) I. g3 and 2. Bxc6; 1. Bxc6? Re4+
3) Drawing

I2) I. Nhl (heading towards g5)
6) 1. Bh3 (exchange defender of d5)
$\square$ Eliminating the defender / Luring away + mate: $B$

1) 2. Ne7 Bxe7 2. Qh8\#; 1. Re7? Bg 7
1) 2. ... Rc2 2. Qxc2 Nf4+ 3 . Kh4 Qg4\#
1) 2. Bc6 Qxc6 2. Qe7\#; 1. ... Bxc6 2. Rd8+
1) $1 . .$. Qd6 (1. ... Qd4? 2. Qd2)
2) $1 . . .$. Bxe4 2. Rxe4 (2. Qxe4)

Qfl+; 2. Qh3 Qxel+
6) I. Qh6+ gxh6 2. Rxb7+; 1. ... Kxh6 2. Rh8\#
7) I. Rg5 Qxc2 2. Rh5\#
8) 1.... Ncl 2. Bxcl Qdl\#
9) $1 . \ldots \mathrm{Re} 2$
10) $1 . \ldots \mathrm{Rf} 2$

1I) 1.... Ra8 2. Qxa8 Bb5\#; 1. ...
$\mathrm{Qc} 2+0-1$
12) 1. Qd5+
$\square$ Test / Mix: H

1) 2. ... Nfg3+ 2. Bxg3 Qxg4; 2. hxg3 Nf2+
1) $1 . \ldots 0-0-02 . \operatorname{Rxd} 7 \mathrm{Rxh} 2+$
2) 3. Rc8+ Kxc8 2. Bxb7+
1) 2. ... Nd3+ 2. cxd3 Qc6+
1) 2. Rc6+; 1. ... Kxd5 2. Bg2\#
1) 2. Nd6+ exd6 2. exd6+ ; 1.
1) 2. Qh5+ Qxh5 2. Rg7\#
... Kd7 2. Nxf7
1) I. Rexd7 Rxd7 2. Ra8+
II) 1. Qf2+ Qb6 2. Ra8+ Kb7 3. Rb8+
2) 3. ... Rxel+2. Bxel Be4 of 1. ... Be4
1) 2. $\mathrm{Bdl} \Delta 2 . \mathrm{Ba} 4$

## Goal Of THE LESSON

- increasing the defensive skills against mate, attacks and passed pawns
- visualisation


## PRIOR KNOWLEDGE

- defending
- thinking ahead


## ACQUISITION

## Instruction

In this lesson we will employ the different forms of defending to further enhance the students' ability to think ahead. We will consider positions in which the opponent has a threat (mate, attack, pawn promotion) which must be countered. The students will look at the positions on their own boards, without touching any of the pieces.
In the diagram ( $\downarrow$ ) the students are asked to spot White's threat. They will realise that after 1. Re7 Black's knight and bishop are both hanging. This requires Black to find a good defence; otherwise Black will lose a piece, after which he will be two pawns down. Since the pieces cannot help each other, a clever move is called for. Black can try the counterattack 1 . .. Rd8, which threatens Rdl\#. However, this threat can simply be countered with 2. h3, after which the knight and the bishop are still hanging. Black's only defence is to play 1. ... Re8 (a counterattack that involves a pin). If White takes a piece now, he will be mated on el. An exchange of rooks is therefore forced,

after which the danger has passed.
It is useful to reiterate the different forms of defending by asking specific questions. The diagram ( $\mathbb{T}$ ) contains another example. Using their own boards, the students must first spot White's threat and then find a defence for Black, without touching any of the pieces (the threat is $\mathbf{1 . c 3}$, trapping the bishop). The correct defence, i.e. 1. ... Rg5, will be found only if the students spot the cooperation between the b7-bishop and the rook on g2. White will now have to worry about his queen first. This gives Black time to bring his bishop to safety. It is important that the students see that the right defence is found by a step-by-step process.
In the diagram ( $c$ ) the question is whether 1. Qxf8+ is a good or a bad move. Again, the students should find this out without touching the pieces. The crucial move here is 2. ... Bd8, which Black can play after 1 . Qxf8+ Kxf8 2. Rc8+. With the help of this bishop sacrifice Black creates an escape square on $\mathrm{f6}$ for his king.
These exercises, which train the students' defensive skills as well as their ability to think ahead, are perfectly suitable for group training, provided we apply the guidelines from Step 4 regarding thinking ahead. In the diagram ( $\mathfrak{B}$ ) we can see an example of defending against mate. White's force on the kingside seems to be overpowering. If White can get his queen on h6, Black is no longer be able to defend against mate. One of White's threats is therefore 1. Qf4 , although 1. Qh5! is an even stronger threat. 1. ... Kh8 prevents the latter move, but not Qf4. After 2. Qf4 Qe2! (forced) 3. Qh6 Qf3+ 4. Rg2 Black will have to settle for a perpetual. Although some students will not

find the right defence themselves, they will like this defence a lot. When discussing this position the following variation can be used to set some additional exercises (at the point immediately prior to the moves with exclamation mark): 1. ... a2 2. Qh5 (or 2. Qf4 Qe2! 3. Qh6 Qf3+4. Rg2 alQ+) 2. ... Qg2+! 3. Kxg2 gxh5 4. Rxh5 Kh8! 5. Kf3 Rg8!
In the diagram (©) Black must come up with a defence after 1. Qa8? Some students will attempt 1. ... Rcl+, for instance 2. Kf2 Rc2+ 3. Kel Rc1+ 4. Kd2. Clearly this is not the right approach. After some thought they will go for 1. ... Rxa2 2. Rxe8 Rxa8 3. Rxi8+ Rxi8, when Black is a pawn up. In the starting position White can improve with 1. Qb5 or 1. Rxe8 Qxe8 2. Qa4!, both of which are winning for White.
$\ln$ Step 4 we have already discussed some ways of defending against a passed pawn. It is always useful to repeat the main points that were made there.
In the diagram ( $\Rightarrow$ ) White has defended himself against a direct pawn promotion: 1 . ... h1Q is met by 2. Be4+. The question is whether White will still be able to stop the pawn after 1. ... Kf3. This is indeed the case: 2. Be6! Ke4 3. Bd7 Kd5 3. Kb7. It is tempting to play 2. Bd7? straightaway, but after 2. ... e5! 3. Bc6+ e4 White can no longer stop the promotion of the h-pawn.
In the diagram (ß) White appears to have Black's passed pawns under control. But Black has one more trick up his sleeve: the white pieces both 'look through' e4, and so Black can block both rook and knight with 1. ... Ne4. Black will emerge victorious after both 2. Rxe4 h1Q and 2. Bxe4 elQ. White must rescue himself with the help of

a battery: 2. Re5! prevents 2. ... h1Q on account of 3. Bxe4+ while 2. ... elQ runs into 3. Bb7+! Kb4 4. Rxe4+, drawing.

## Reminder

$\diamond$ Defending

## Practice

## Workbook

## Defending / Defending against mate: $A$

## 兠

Explanation: The opponent is threatening mate, usually in one move and sometimes in two moves. With the right move the mating threat can be parried. If everything else fails, the defending move will have to cost material (position 5).
Mistake: The suggested move is incorrect.
Help: Play the suggested move on the board and ask how the opponent can now give mate. By doing this the student will spot the mating threat. Now go through the various defensive options and check which of these is successful.
$\square$ Defending / Defending against a passed pawn: A 쁟
Explanation: The passed pawn(s) of the opponent must be stopped. In some cases this may involve the loss of material. This is justified, since allowing pawn promotion implies that the opponent will gain 8 points. An altemative is to allow the opponent to queen, provided the new queen cannot cause any harm. An exercise has been correctly solved if the passed pawn no longer causes any acute danger.
Mistake: The suggested move allows pawn promotion.
Help: Ask the student to try again. The goal of the exercise should be clear.
Mistake: White only manages to draw position 12.
Help: $\quad$ This is an exercise which you either see or don't see. Even relatively strong players fail to spot this one sometimes, although strictly speaking the answer is not hard. If need be, tell the student to look for a counterattack.
Explanation：The position must be considered from the perspective of the opponent．What does he threaten？Once the threat has been found，the next task is to find an appropriate defence． Thus，as the title of the sheet already indicates：＂Defending against threats．＂
Mistake：The student fails to recognize the threat
Help：If the threat is not recognized，then there is not much to defend either．Give the student a hint or tell him what the threat is．
Mistake：The student chooses the wrong defence．
Help：Ask the student to consider the position once more from the opponent＇s perspective，and ask him what the opponent can play now．Eliminating the defender／Mix：A
宸挡
Explanation：This sheet contains a mixed set of exercises with the theme：eliminating the defender．
The various possibilities include：luring／chasing away + material／mate，capturing + material／mate，interposing， blocking．

## ANSWERS

Defending／De fending against mate：A

1）1．Qa8＋（1．Qa7＋Kc8）1．．．．
Kxa8 2．Bxd5＋Kb8 3．Bxf3
2）1．．．．Rf3 2．Kxf3（2．Rxf3 Bc6＋）2．．．．Kf7
3）1．．．．Qxg5 2．fxg5 Bxg5＋ 3 ．
Kc2 Rxe6
4） $1 . \ldots \mathrm{Rxgl}+2 . \mathrm{Kxgl} \mathrm{Be} 3+3$ ． Kflh5
5）1．Rel！（1．Nfl Qxfl＋2．Kxfl Rhl\＃）1．．．．Qxel＋2．Nfl
6） $1 . \ldots$ Bxe4＋（1．．．．Qd3＋？ 2.
Kal Bxe4 3．Rxg7＋Kxg7 4.

Rh7＋Kg8 5．Bxf7＋）2．Qxe4 Qd3＋
7）1．．．．Ne3＋（1．．．c4 2．Rxg8＋ Kxg8 3．Bxc4＋）2．Kd3c4＋
8）1．Rb8＋Kh7 2．Rb5 Rxb5？ 3. Qd8＋Kh7 4．Qd3＋
9）1．．．．Rdl 2．Rxdl Qxf6
10）1．．．．Nf2＋2．Kh2 Ng4＋3．Kh3 Nf6
11）1．．．．Qe3＋2．Kxe3 Nf5＋3．Kf2 Rg7
12）1．．．．Qd4！

Defending / Defending against a passed pawn: $A \square$

1) 2. Bb3 g5 2. Bxc2; 1. ... blQ Ne6+; 1. ... Kc8 2. Ne6) 2.
2. Rf7\#
2) 3. $\mathrm{Nd} 5 \mathrm{~g} 22 . \mathrm{Nf} 4 \mathrm{glQ} 3$. $\mathrm{Ne} 2+$
1) $1 . \mathrm{Rh} 8 \mathrm{clQ} 2 . \mathrm{Rd} 8+\mathrm{Kc} 53$. Rc8+

Nf3
7) 1. $\mathrm{Rb} 8+\mathrm{Ka} 72 . \mathrm{Ne} 5 \mathrm{elQ}(2$. .. Kxb8 3. Nd3) 3. Nc6\#
8) 1. Bal! Kbl 2. Bd4 Kc2 3. Ke 5
4) $1 . \ldots \mathrm{Rb} 3+2 . \mathrm{Kg} 2 \mathrm{Rb} 2+3$. Kf3 Rd2
9) 1. Bel fxelQ 2. Ng2+
10) Drawing
5) 1. $\mathrm{Ra} 5 \mathrm{Kxa} 52 . \mathrm{b} 4+\mathrm{Kxb} 43$.

1I) Drawing Kb 2
12) 1. Rfel alQ 2. Rle7\#
6) $1 . \mathrm{Rdl}+!\operatorname{Ke} 7(1 . \ldots \mathrm{Kc} 72$.

Defending / Defending against threats: A
The move in boldface is the move that contains the threat. This is the threat against which a defence must be found.

1) 2. Qh6 Qf5+ $\Delta$ 2. .. Qxf6
1) 2. Qe6 Qb7 2. Qxf7? Bc5+
1) 2. Qh6 Qc5+ $\Delta$ 2. ... Qf8
1) 2. Rd1 Nxc3 2. Rxd7 $\mathrm{Ne} 2+$
1) 2. Qd3 Rb8 2. Qxg6? Rg8
1) 2. Re8 Be6
1) 2. b5 Ne 5 2. bxa6 $\mathrm{Nf} 3+$
1) 2. Nd6 Qc7
1) 2. $\mathrm{Nc} 5 \mathrm{Qh} 7+\Delta 2$. .. dxc5
1) 2. ... e4+ 2. Kd4 exf3 3. Re6 \#
1) 1.f5 Rb6 2. fxg6 Rb2
2) 3. $\mathrm{f} 5 \mathrm{Nf} 6 \Delta 2$. .. Bd 7

Eliminating the defender / Mix: A

1) 1....Qxel+2. Nxel Rgl \#
2) 3. Bb 2 Qxb 2 2. Rxh6+
1) 2. $\mathrm{Rc} 7+\mathrm{Bxc} 7$ 2. Na 7 \#
1) $1 . \mathrm{Ne} 4 / 1 . \mathrm{Re} 4$
2) $1 . \mathrm{Rf} 7$
3) $1 . \ldots \mathrm{Rgl}+$
4) $1 . \mathrm{Nb} 8$
5) 6. ... Rxd4+ 2. exd4 Qb5+
1) 2. Rxf6
1) 2. ... Qd6
1) $1 . \ldots \mathrm{Be} 5$
2) 3. Bf $6+$

## Goal of the lesson

- learning about specific rook endings


## Prior knowledge

- rook ending (Step 4)
- endgame strategy (Step 4)


## ACQUISITION

## Instruction

Rook endings frequently occur in students' games. It is therefore useful to be able to recognize winning and drawn positions. In this lesson we will consider a number of characteristic rook endings.
We begin by playing some positions to a finish, using a simultaneous display format. We start with the position in the diagram $(\Rightarrow)$. The students play with the white pieces and should try to win. After 1. Rf2+


Kg 7 there are two roads to victory:
A: 2. Ra2 Kf7 3. Ra8 Re2 4. Re8 Rd2 5.
Kc7 Rc2+ 6. Kb6 winning.
B: 2. Rf4 Re2 3. Ke7 Re2+ 4. Kd6 Rd2+
5. Kc6 (another possibility is 5 . Ke6 Rdl 6. Rf5 or 5. ... Re2+ 6. Kd5 Rd2+ 7. Rd4) 5. ... Rd1 (or 5. ... Rc2+6. Kd5 Rd2+ 7. Rd4) 6. Rc4 Kf7 7. Kc7 with a quick win.
It is likely that the variation under B will not be found quickly.
Students who have won continue with the position in the diagram ( $\downarrow$ ). In this position two problems have to be solved. First, the pawn must be advanced to g 7 (not hard).


Next, the variation under B must be played (given that the variation under A does not lead to a win here).
A possible variation:

1. Kh6 Rh2+ 2. Kg7 Rg2 3. g6 Ke7 4. Kh7 Rh2+ 5. Kg8 Rg2 6. g7 Rh2
This move is more stubborn than 6 . ... Rg3 7. Rhl Kf6 8. Kh8 Rxg7 9. Rfl+, winning. The position after 6.... Rh2 (diagram $\mathbb{\Downarrow}$ ) is almost a mirror image of the first diagram. The only difference is that now the edge of the board is in White's way. The students should find out for themselves that the first approach does not work. To win, the white king must be able to move out of the way of the pawn. For this reason White plays:

## 7. Rel+ Kd7

This is better than 7. ... Kf6 8. Kf8 or 7. ... Kd6 8. Kf7 Rf2+ 9. Ke8 Rg2 10. Re7 Rgl
11. Kf8 Rg2 12. Rf7! winning.

## 8. Re4!

This is the key move. The immediate 8 . Kf7 Rf2 +9 . Kg6 Rg2+ 10. Kf6 Rf2 + does not promise White anything. The king will have to return to g 8 , after which White will have to start all over again. Now Black is forced to sit and wait.
8. ... Rh1 9. Kf7 Rf1+ 10. Kg6 Rg1+ 11. Kh6 Rh1+
Black can also 'pass' with 11. ... Rg2, but this will not save him either: 12. Rh4 Ke7 13. Kh7 Kf7 14. g8Q+ Rxg8 15. Rf4+.
12. Kg5

The intention of 7. Re4! becomes clear (13. $\mathrm{Rgl}+13$. Rg 4 ). White has cracked it.
The apt name of this winning method is 'building a bridge'.
The diagram ( ${ }^{\mathfrak{}}$ ) contains an important type of drawn position. The black king is placed in front of the pawn. With correct

play this will guarantee him a draw. The rook must stay on the $6^{\text {th }}$ rank until White advances his pawn to d6. Black then plays his rook to the first rank, from where it starts giving checks 'ad infinitum': 1. ... Rb6 2. d6 Rb1 3. Ke6 Re1+; the white king has no place to hide. Not good is 2. ... Rb5+ 3. Ke6 when the mating threat forces the black king to move. After 3. ... Kc8 4. Rh8+ Kb7 5. d7 the pawn can no longer be stopped.
The activity of the defending rook plays an important role in rook endings. The only difference between the diagrams ( $\uparrow$ ) and $(\Rightarrow)$ lies in the position of the black rook. In positions where the defending rook gives checks from the side of the board, it is the position of the rook that makes all the difference.
In the diagram ( $\mathbb{\bullet}$ ) the position of the black rook is sufficient for a draw: 1. ... Rh8+ 2. Ke7 Rh7+ 3. Ke6 Rh6+ 4. Ke5 (4. Kf5 Rd6) 4. ... Rh5+ 5. Ke4 Rh4+ 6. Kd3 Rh8 and Black picks up the pawn. The distance between the rook and the enemy king is
 sufficiently great.
In the diagram ( $\Delta$ ), on the other hand, the defending rook will soon run out of checks. Note that, as compared to the diagram ( $\uparrow$ ), the distance between the rook and the king is 'one line smaller'. Now White wins after 1. ... Rg8+ 2. Ke7 Rg7+ 3. Ke8 Rg8+ 4. Kf7 Rh8 (or 4. ... Rd8 5. Ke7) 5. Rh1! Rd8 (5. ... Rxhl is relatively better) 6. Ke7 Kc7 7. Rcl+ . Black has no time to improve the position of his rook. 1. ... Rh2 is of course met by 2. Rb1+.
In the last two positions White's d-pawn cuts the board in half, into a short side and a long side. For a draw, the defending king
must be positioned on the short side, while the defending rook must be positioned on the long side. Positions with the pawn on the c-file are even easier to defend, since here the long side is even longer.
So much for theory. It will be necessary to repeat this lesson's subject matter every so often - not just by playing the moves on a demonstration board, but also by actively finishing game-positions with the students! In rook endings activity is of the utmost importance. Passivity leads to vulnerability and usually has disastrous effects.
To conclude this lesson we look at a couple of positions in which the vulnerability of the king and the rook is relevant. Lack of manoeuvrability (usually at the edge of the board) is often fatal, in particular as far as the king is concerned.
In the diagram ( $(\mathbb{)}$ ) mate is the main theme. White can win a pawn with either I. Rxf5 or I. exf5 but, as we saw earlier, Black can easily hold the game with 1. ... Ra7+. To win the game White must introduce some tactics. 1. Rg1 + Kh7 2. e5 Rxe5 (otherwise the pawn marches on; the f-pawn protects the king from checks) 3. Kf7 Kh6 4. Kf6; Black is either mated or loses a rook.
Positions where the rook lacks space occur less frequently. The diagram ( $\lrcorner$ ) contains a nice example. At first sight there is not a lot that White can do with his a-pawn: I. a7 is met by I. ... Ra6 while 1 . axb7 runs into 1. ... Rb6. However, closer inspection reveals that the latter option contains a hidden tactical shot: 2. Ral Rxb7 3. Ra8+ Kh7 4. Kc6 winning the rook.
The diagram ( $(\Omega)$ contains an example of an X-ray check, a handy and effective weapon in rook endings. Here White makes use of

an X-ray check to guide his h-pawn to the other side of the board. After 1. h7 the pawn is indirectly protected on account of the rook check on a7. Hence, Black cannot take it. Checks will only help the white king; in that case the king first takes the pawn on d3 and then moves in the direction of the black rook. If Black moves his king to a square on the $7^{\text {th }}$ rank White plays 2. Ra8, threatening to queen the pawn. Black is left with the choice of where to lose his rook, i.e. on h7 or on h8.
The exercise sheets contain positions that involve tactical shots in rook endings.

## Reminder <br> $\diamond$ Rook ending

## Practice

## Workbook

Rook ending / Mate: A

## 紧

Explanation: The position of the enemy king is so bad that there is a forced mate. Only in positions 7 and 12 can the defender limit the damage to a completely lost position.
Mistake: The suggested answer is incorrect.
Help: Ask the student to indicate why the suggested answer is incorrect, and then ask him to try again.
Mistake: Positions 7 and 12 are not solved correctly.
Help: In these positions there is no forced mate, even though mate is never far away. This information will usually guide the student in the right direction. If all else fails, then remove the f4-pawn and ask the student to give mate.Rook ending / $X$-ray check: $B$ 単
Explanation: A winning X-ray check can be set up by means of chasing and luring away enemy pieces. In most of the positions the X-ray check will net a rook.

Mistake: The student fails to take a possible defence into account. Positions 11 (1.c6 a6!) and 12 (1. Rg8 Rhl + ) in particular contain tempting - but incorrect - moves.
Help: Play the suggested move on the board and ask what the defending side can play now. In this way the student will quickly realise that his suggested move is not correct.

## ANSWERS

$\square$ Rook ending / Mate: A

1) 2. Ra8! Kxa4 2. Kb6\#
1) 2. $\mathrm{Kf} 6 \mathrm{Rf} 2+2 . \mathrm{Kg} 7 \mathrm{~g} 4$ 3. Ra5+
1) 2. $\operatorname{Re6} \Delta 2$. Rh6 +3 . $\mathrm{g} 6+$
1) 2. g4! Rxg4 2. Rc7 $\Delta$ mate
1) 2. Kg 8
1) 2. $\mathrm{Kd} 3 \mathrm{Rd} 7+2$. $\mathrm{Kc} 3 \Delta 3$. b4\#
1) 2. Rel+Rbl 2. Rcl Rxcl 3. Kxcl h5 4. gxh6
1) 2. f5 + Kh6 2. Rg8!
1) 2. $\mathrm{a} 3+\mathrm{Kxa3} 2$. $\operatorname{Rg} 4 \Delta$ mate.
1) 2. ... $\operatorname{Re} 5$ 2. $\operatorname{Rg} 4+\operatorname{Kc} 3 \Delta 3$... Ra5+
1) 2. ... Rd6 2. Rxa7+ Ke6
1) 2. f5 Rxg3 2. f6
$\square$ Rook ending / X-ray check: A
1) 2. ... Rh7+ 2. $\mathrm{Kg} 4 \mathrm{Rg} 7+$ Rgl+)
1) 2. Rh6+ Kd7 2. Rh8 Rxa7 3. Rh7+
1) 2. Ra4 Rxa4 2. Rh3+ Kd4 3. Rh4+
1) 2. a3+ Kxa3 2. Ra5+ Kb4 3. Ra4+
1) 2. ... Ra3+ 2. $\mathrm{Ke} 4 \mathrm{Ra} 4+\Delta 3$. ... Rh4; 2. Ke2 Ral
1) 2. Kg3 Kf7 2. Rh8 (1. Rh8? Rhl+; 1. Rg8? Rhl + $\Delta$ 2. ...
1) 2. b6 axb6 2.a7
1) Drawing
2) 3. e7 Kxe7 2. Rc8
1) 2. Ke4 h3 2. Rh8 Rxa7 3. Rh6+ Ke74.Rh7+
1) 2. a6! bxa6 2. Ra8; 1. ... Rh6 2. axb7 Kxb7 3. c6+ (1. c6? a6!)
1) 2. Rg ! Ra 22 . Rg 8 (1. Rg8? Rhl+)

## Goal of The lesson

- recognizing and using attacking motifs


## Prior knowledge

- kingside attack


## ACQUISITION

## Instruction

In Step 4 we have seen that an attack on the king is most likely to succeed if the pieces of the attacker outnumber those of the defender. Attacking a castled king requires the attacker to bring up his pieces to the kingside ('points up') and, if possible, to eliminate any defending pieces ('points down'). In such attacks acquired attacking motifs, combinations and mating patterns play an important role.
We begin by giving two examples which serve to refresh the students' memory.
In the diagram ( $\Rightarrow$ ) the shield of pawns that is surrounding Black's king has already been demolished. White must nevertheless hurry; the bishop on d 3 is unprotected and Black is ready to strengthen his defences with Rg8. With 1. Bxf5 White clears the way for the rook on el. After 1. ... exf5 2. Nxf5 Rg8 White eliminates the defender with 3. Re8. If the queen takes on e8 the check on f 6 finishes Black off; if the rook takes, Black is mated on g7.
In the diagram ( $₫$ ) the Black kingside has been weakened slightly. What is worse is that Black is in serious need of defending

pieces. The white army on the kingside quickly wraps things up: 1. Bf6 g6 (1. ... g5 2. Qh5 Kh7 3. Bxg5 is no better) 2. Qh4 Kh7 3. Qxh6+ Kxh6 4. Rh4\#.
The above examples should not present any problems. All the same, it is important that the students keep practising such attacks. The exercises in this lesson consist for the most part of standard attacking motifs, which are bound to occur in the students' own games sooner or later.
In the present lesson we will be concerned with a familiar attacking motif, which has come to be known as the 'standard bishop sacrifice' or the 'Greek gift sacrifice'.
In the diagram ( $\Rightarrow$ ) White's queen, bishops and knights are all aimed at the black king. After 1. Qd3 White threatens mate on h7, which Black can best parry with 1. ... g6. This move creates a slight weakness, but this should not concern Black too much, in particular because his bishop on $f 8$ can now join the defence. In addition, Black is ready to play 2. ... Ncb4, threatening to trade off White's attacking bishop on c2.
Yet, the pawn on e5, which effectively cuts the Black position in half, grants White a forced win. His attack proceeds in the usual fashion:

- create a hole
- bring up more attacking pieces
- eliminate the def ence

In more concrete terms: 1. Bxh7+ Kxh7 2. Ng5+.
Now Black can choose between three king moves. The worst is 2. ... Kh6, since this loses the queen after 3. Nxe6+. This leaves us with 2. ... Kg8 and 2. ... Kg6. We first considcr 2. ... Kg8. White brings in an additional attacker with 3. Qh5 Bb4 (what
else should Black do?). Now the simple 4. Qh7+ fails on account of 4. ... Kf8 5. Qh8+ $\mathrm{Ke7}$ and the black king escapes. White can eliminate this defence by first removing the pawn on f7: 4. Qxf7+ Kh8 5. Qh5+ Kg8 6. Qh7+ K18 7. Qh8+ Ke7 8. Qxg7 mate. Next we consider 3. ... Kg6 (see diagram $\uparrow$ ). This is a good moment for the students to start analyzing the position themselves. We tell the students which moves they should take into account beforehand; these are 1. Qd3+, 1. Qg4 and 1. h4. When we discuss the different variations afterwards, the variations given by the students must be discussed first. These will correspond, at least in part, with the following:
Variation 1: 1. Qd3+ f5 (1. ... Kh5? 2. Qh7+ Kg4 3. Qh3 mate) 2. exf6+ Kxf6 3. Qf3+ Ke7 4. Qf7+ Kd6 5. Nce4 mate.
Variation 2: 1. Qg4 (threatening 2. Nxe6 + ) 1. ... 55 (or 1. ... Qd7 2. Qh4 and 3. Qh7 mate) 2. Qh4 f4 3. Qh7+ Kxg5 4. Ne4+ Kg4 5. h3 mate.
Variation 3: 1. h4 Nf6 (diagram $\Rightarrow)$; Black returns the piece in the hope of setting up a defence; 1. ... f5 2. h5+ Kh6 3. Nxe6+ will cost the queen) 2. exf6 Kxf6 3. Qf3+ Ke7 4. Qxf7+ Kd6 5. Nge4 mate.

Black has a much better possibility on the second move: 2. ... gxf6 3. h5+ Kg7 4. h6+ Kg6! (and not 4. ... Kg8 5. h7+ Kg7 6. h8Q+ followed by 7. Nxf7+). After 5. h7 Bg 7 the situation is not entirely clear. In the position in the diagram ( $\Rightarrow$ ) White has a better alternative in 2. g4 Qxd4 3. h5+ Kh6 4. Nf3+, but best is $\mathbf{2 .}$ h5+ Nxh5 3. Qd3+ f5 4. exf6+ Kxf6 5. Qf3+Kg6 8. Qf7+ Kh6 9. g4 Nf6 10. Kg2.
We have looked at three frequent replies to the bishop sacrifice on h7. Some of these

replies are better than others. We have seen that in the position under consideration not all alternatives are winning. In some cases only one move will lead to victory. What is important is that the students have seen a number of different possibilities. It is very instructive to go through Black's various defensive possibilities (e.g. returning the piece with 2. ... Nf6).
The students will now have an idea about what they should look and aim for in their own games. About time, therefore, to start with the game-positions.

## Practice

## Finishing game-positions

The following two positions can be played using a simultaneous display format. The students play with the white pieces. The trainer should always begin by playing the weakest defence (i.e. variation A) so as to guarantee that all students will start with a victory under their belt. After a 'game' has finished, the student should play the next variation (i.e. variation $B$ ) to a finish, and so on. It goes without saying that there are many more possibilities than are indicated below. This goes in particular for White, who often has a choice between a range of winning continuations. Below we only give the quickest road to victory.

## Diagram (』): 1. Bxh7+ Kxh7 2. Ng5+

A: 2. ... Kh6 3. Qd3 winning.
B: 2. ... Kg8 3. Qh5 Re8 4. Qxf7+ Kh8 5. Qh5+ Kg8 6. Qh7+ Kf8 7. Qh8+ Ke7 8. Qxg7 mate.

C: 2. ... Kg6 3. Qg4 f5 (3. ... Ndxe5 4. fxe5


Nxe5 5. Qg3) 4. Qg3 Qa5 5. Qh4 Nf6 6. exf6 winning.

Diagram ( $\uparrow$ ): 1. Bxh7+ Kxh7 2. Ng5+
A: 2. ... Kg8 3. Qh5 Re8 4. Qh7+ Kf8 5. Qh8+ Ke7 6. Qxg7 Rf8 7. Nh7 and wins.
B: 2. ... Kg6 3. Qg4 f5 4. Qh4 Bd7 5. Qh7+ Kxg5 6. f4+ Kg4 7. Qh3 mate.
C: 2. ... Kh6 3. Qg4 Nxe5 4. dxe5 Qxe5 5.
 Ndf3 Qc7 6. Qh4+ Kg6 7. Rfe1 Nd7 8. g4 winning.

## Workbook

King's attack / Attack on a castled king: A㟶Explanation: This exercise sheet requires students to make use of familiar attacking techniques, i.e. eliminating the defender, bringing up extra attacking pieces and demolishing the opponent's kingside position. In some positions more than two moves will have to be noted down.
Mistake: The correct solution is not found.
Help: $\quad$ Why is the attacking side unable to win? Is it because of a defending piece? Then eliminate it! Is it because of insufficient material? Then bring up some extra pieces! Is it because the enemy king is still sufficiently protected? Then force your way through to the king!

King's attack / Attack on a castled king: B
Explanation: See exercise sheet A

## ANSWERS

King's attack / Attack on a castled king: A1) 2. Qg5 hxg5 2. hxg5\#
Qh8+ Bg8 4. Qxh6\#
1) 2. Rf6 Qxe5 2. Qxh6+! (2. Rxh6 Kg8)
1) 2. Qxg4 fxg4 2. Ng6 + hxg6 3. hxg6
1) $1 . \ldots \mathrm{Bc} 2$
2) 3. Nd5 exd5 2. Qh7+ Kf8 3.
1) 2. Nf6 gxf6 2. Qxf6 Bh7 3.
Qh8\# (1. Qh7+ $\Delta$ 3. Nd5+)
1) $1 . . . \mathrm{Bh} 3$
2) 3. Qxf7 Nxf7 2. Rg8+ Rxg8 3. Nxf7\#
1) 2. $\mathrm{Qxg} 6+\mathrm{hxg} 6$ 2. $\mathrm{Nf} 6+\mathrm{Kg} 73$. Rh7\#
1) 2. Nf 5 exf5 2. Nd5 $\Delta 3$. Nf6+
1) 2. Rxg6 hxg6 2. Qxg6
1) 2. Nf 6 Bg 8 2. Nh5 gxh5 3. Qf6\#
$\square$ King's attack / Attack on a castled king: $B$
1) 2. ... Bxe2 2. Rxe2 Nf3+
1) 2. $\mathrm{Nf} 6+\mathrm{gxf} 6$ 2. $\mathrm{exf6} \Delta 3$. $\mathrm{Qg} 4+$ 13. Qxf8+
1) 2. f6 exf6 2. Ndff gxf5 3. Nxf5
1) 2. Bxg6+ fxg6 2. Qd7+
1) 2. Qh6 Bf6 2. Bxf6
1) 2. Bh6 Re8 2. Bxa6
1) 2. ... $\mathrm{Rg} 62 . \mathrm{gxh} 3 \mathrm{Qgl}+$
1) 2. Nh6 + Kf8 $2 . \mathrm{Nf} 5$ exf5 2.

## Rxh7

9) 10. ... Qh3 2. Bxc6 Ng4
1) 2. ... Qh3 2. Rgl Rh5 3. Nxh5 Qxf3+
1) 2. Bxh7+ Kxh7 2. Qh5+ Kg8 3. g6 Re8 4. Qh7+ Kf8 5. Qh8+
1) 2. Nf6+ gxf6 2. Qh7+ Kf8 3.

Nxe6+ Nxe6 4. Bh6+


## Goal of the lesson

- learning a new positional weapon


## Prior knowledge

- seventh rank (tactical and positional aspects)


## ACQUISITION

## Instruction

Rooks are the only pieces that, on an empty board, control the same number of squares, irrespective of their position (14). As we saw in Step 4, lesson 14, the rook functions best when placed on the $7^{\text {th }}$ rank. In order to get there a rook needs to have space. Particularly, there should not be any pawns in the way. A file on which there are no more pawns is called an open file.
In the diagram ( 8 ) there is only one open file, i.e. the h-file. Neither side can exploit this file, since the kings can easily dispel the rooks from the $7^{\text {th }}\left(2^{\text {nd }}\right)$ rank. However, White can open a second file with 1 . cxd5. With this pawn exchange White clears the c-file. When creating an open file it is of course important that the opponent cannot exploit this file. This is not the case here: after 1. ... cxd5 2. Rc7 Rb8 3. Rd7! (this subtle move is necessary, otherwise Black will play 3. ... Ke8 and 4. ... Kd8) 3. ... e6 4. Re7 White controls the $7^{\text {th }}$ rank. He can now take his time advancing his king.
If we count the number of moves available to the rooks after the first move, then we can conclude that an open file is more than

just a passage to the $7^{\text {th }}$ rank. The white rook controls 11 squares, the black rook a mere 4. In addition, the white rook ties the black king to f 7 and the black rook to b 7 .

In the diagram ( $\uparrow$ ) we see another way to open a file. After 1. d6 (Black is more or less forced to take, opening up the d-file) 1 . ... exd6 (after 1. ... Rd8 white wins with 2. dxc7) 2. Rxd6, the white rook is ready to invade the $7^{\text {th }}$ rank on the next move.
The usual way to defend against a rook invasion on an open file is to oppose the enemy rook with one of your own rooks. In the diagram ( $\neg$ ) this strategy must be used with care. After 1. Rd1 Black should play 1. ... Red8. If the other rook moves, Black will lose control of the d-file: 1. ... Rad8 2. Be3 a6 3. Bb6. After 1. ... Red8 2. Be3 Kf8 Black has little to worry about. Now White cannot just give up the d-file with 3. Rxd8+ Rxd8 4. Bxa7? (4. Kf2!) 4. ... Rd2+, when Black's rook would be much more active than White's.
An effective way to gain control of an open file is to eliminate the defending rook.

In the diagram ( 0 ) Black seems to be okay. It would appear as though both sides are controlling the open d-file; however, after the strong 1. Bf6 Black is helpless against the imminent invasion of the white rook. The bishop chases away the d8-rook. Now Black must trade rooks on dl or move his rook away from the d-file. In either case, White will invade d7, after which Black will face an arduous defence.
When there is an open file in a position, it is not always a good strategy to occupy this file straightaway.


In the diagram ( $\uparrow$ ) White must occupy the d-file with due preparation. The obvious 1 . Radl does not give White anything after 1 . ... Rad8 2. Bb6 Rd5, when Black seals off the open file. With the preparatory 1. Bb6 White prevents Black from opposing rooks. This makes it possible to play a rook to the d-file on the next move, which can in turn be followed by Rd7.
Sometimes a rook invasion on an open file is prevented by a piece that is defending the invasion square. In the diagram ( $\Leftrightarrow$ ) the bishop on f 5 is such a piece. White gains control of the d 7 -square by eliminating the defender with 1. Nxf5. White should go for this strategy, since doubling rooks with 1. $\mathbf{R d 2}$ is too slow. After 1. ... Rad8 2. Rfd1 Rxd2 3. Rxd2 Bc8 Black successfully holds off White's pieces.
The diagram ( $\S$ ) shows a position from the game Geller-Simagin, Moscow 1951. The c-file is the only open file. It is instructive to see how White quickly gets a firm grip on this file. White first plays 1. Ba6. This move does not only eliminate a defender of the c8-square, but also paves the way for an invasion with the queen. Black must take the bishop: 1. ... Bxa6 (or 1. ... Rxcl 2. Rxcl Ba8 3. Bd6 and 4. Bb5, suffocating Black; White does not even need to win the queen with 4. Rc8). White continues with 2. Qxa6 Rxcl (otherwise White will win a pawn) 3. Rxcl Qa8. White has conquered the c-file. After the further 4. Bd6 Rd8 5. e5 Bg7 6. Rc7 Black lost material, and he resigned after 6. ... Qe4 7. Nd2 Qe1+ 8. Nf1 Nf8 9. Qxa7 Bh6 10. Rxf7.
One aspect that we have not considered so far is how the advantage of having an open file can be transposed into another kind of

advantage.
The diagram ( $\uparrow$ ) provides an appropriate example. White is unable to gain absolute control of the c-file. If White doubles his rooks with 1. Racl Black can defend with 1. ... Rc5. Hence, White chooses a different strategy and plays 1. Rc6. Now Black must either take the rook or hand over the c-file. Taking the rook gives White a formidable passed pawn. Handing over the c-file gives
 White the chance to advance his pawns at leisure (1... Rb8 2. Racl Rhc8 3. Kd4).
A square on an open file that is supported by a pawn (and which is located in enemy territory) is called an outpost. In the above position c6 is an outpost for White, and c5 is an outpost for Black.

## Summary

There are a number of important points regarding open files:

- create an open file only if the file can be used to your advantage
- try to gain control of an open file
- controlling an open file can be used to:
- invade the $7^{\text {th }}$ rank
- occupy an outpost


## Reminder

$\diamond$ Open file

## Practice

## Workbook

## $\square$ Strategy / Open file: A <br> 兠

Explanation: The topics that are covered in this lesson also feature in the exercises: creating an open file, occupying an outpost and climinating the options available to the defender.
All positions on this exercise sheet are suitable for playing
to a finish, either in simultaneous display format (against the trainer or against a sufficiently strong player) or with the students playing against each other. (In the latter case the students should note down the moves).
Mistake: The correct solution is not found.
Help: Discuss the suggested answer and provide help; the kind of help that is offered depends on how well the student has mastered this lesson's subject matter.
$\square$ Test / Mix: I

## 幽

Explanation: The themes of these exercises have been taken from both the present Step and from previous Steps.
Mistake: The suggested answer is incorrect.
Help: For specific pointers, see the appropriate lesson. The theme of the exercise in question is indicated in the 'ANSWERS' section at the end of this chapter.
Mistake: The position is too difficult.
Help: Ask the student to explain his reasoning. Which moves has he looked at? Guide the student in the right direction using questions, e.g. "Which attacking targets do you see?" or "Can you see an important defender?" It is also possible to help the student by telling the kind of preparatory move that is required.

Test / Mix: J
쓸플
Explanation: See the previous exercise sheet.

## ANSWERS

Strategy / Open file: $A$

1) 1.f4 (open f-file)
2) 3. cxd5 exd5 2. Racl Rac8 3. Ba6 (open file, control file, chase away defender)
1) 2. Rg6 (occupy outpost)
1) 2. Rc6 (occupy outpost)
1) 2. ... Nb4 (gain control of c-filc)
1) 2. Ba6!; 1. Racl Rac8 2. Ba 6

Rc5 (eliminate defenders)
7) 1. ... Ng3 2. Rcl Ne4 and White must give up a-file.
8) 1. Rc8 Kf8 2. Rxd8+ Rxd8 3. Rc7
9) I. Nd3 and Black must give up a-file (otherwise b4 is lost).
10) 1. ... Rc6 2. Rxc6 Qxc6+
11) 1. g 4 (1. Bg 5 Kg 7 2. $\mathrm{Bxf} 6+$

Kxf6 3. Rd7 Rb8 4. c5 Ke6 5.
Test / Mix: I

1) $1 . \ldots$ Rd3; 1. ... Bd3 2. Kf2 (interposing)
2) 3. ... Rxf2 2. Nxb2Rf6+ (2 $2^{\text {nd }}$ rank)
1) 2. ... Ne4 2. Qxc7 Rel+ 3. Kg2 Rf2\# (discovered attack)
1) 1 .... Bd2 2. $\mathrm{Qxd} 2 \mathrm{Qg} 2+$ (blocking)
2) $1 . . . . \mathrm{Bg} 6+2$. Qxg6 Qc2+ (luring and X -ray check)
3) 4. ... Re2 2. Qxe2 Nxf4+ (luring and double attack: knight)
1) 2. ... Nf3+ 2. Qxf3 Qel+ (discovered attack)

## Test / Mix: J

1) 2. $\mathrm{Nxf6}+\mathrm{Nxf6} 2 . \mathrm{Qxc} 7$ (luring away + material)
1) 2. Ba4 Qxa4 2. Bf6 (luring away + mate)
1) 2. ... Ng5 2. Qe3 Qxel (aiming + luring and double attack: queen)
1) 2. ... Ne3 2. fxe3 Rxg3+ (access)
1) Drawing
2) Drawing
3) 4. ... Nfl (chasing away + mate)

Rc7 f6 and 6. ... Kf7)
12) I. Qe5 (open d-file)
8) 1. Bh6 +Kg 8 2. Bd5 (luring away + material; placing the back piece and pin)
9) 1. b6 axb6 2. Nb5 (clearing a square and double attack: knight)
10) 1. ... Rxc3 2. bxc3 Qf3; 2. Qxc3 Qxe4 (luring away + material / mate)
11) 1. Nxd5 Qxd5 2. Bxe6+ (luring and double attack: queen)
12) 1. Bxf7+ Kh7 2. Bxg6+ (access)
8) $1 . \ldots \mathrm{Rbl}$ (eliminating the defender and double attack: bishop)
9) 1. $\mathrm{Nd} 8+\mathrm{Qxd} 8$ 2. $\mathrm{Qxd} 5+$ (eliminating the defender and double attack: queen)
10) 1. ... Rd2 2. Qe3 Rd3 (luring and discovered check)
11) 1. Bxh6 for 1.... Rxh6 2. Ng 5 (trapping)
12) 1. ... Rxe3+ 2. fxe3 Bb4+ (luring away + material / access)

## GOAL OF THE LESSON

- learning to recognize theoretically drawn positions
- increasing the level of endgame skills


## PRIOR KNOWLEDGE

- draws (all drawing forms discussed so far)
- pawn endgame (shielding off)
- piece cooperation


## ACQUISITION

## Instruction

This is a long lesson which can, if need be, be cut into smaller parts.
In chess, there are examples of positions in which a huge material plus is insufficient for a win. The best example is the ending of two knights versus king alone. In this ending a six-point advantage is not enough to win the game.
In the diagram ( $\Rightarrow$ ) White is a rook down. The black rook is White's greatest enemy since, as noted, Black cannot win with the two knights alone. Given this, White has a surprising drawing resource. The move 1. Ng7!, which threatens a check on both e6 and f 5 , forces the black king to abandon the rook. Remarkably, the rook has no escape. Whether it moves to c5, c7, e3 or g3, it will always fall victim to a knight fork.
In the left part of the diagram (\&) White manages to trade rooks with the help of a tactical finesse. After 1. Rb8+ Nxb8 (it is stalemate after 1. ... Rxb8) 2. Kb7 Black will be left with two knights.


In the right part Black has an extra bishop, but the fact that he has only a single pawn left means that White can manage to draw: after 1. g4 Bg6 2. f4 gxf4 3. Kf3 and 4. Kxf4 Black's last pawn has gone.
There are other examples of positions in which a material plus is insufficient for a win. For instance, in the absence of pawns being an exchange up is usually not enough (see the upper parts of the diagram $\Uparrow$ ). The side with the rook can win in some cases only. One such case is shown in the bottom left-hand corner, where Black picks up the knight after 1. Kc1 Rb2.
In the bottom right-hand corner all it takes to win is a tempo move with the rook.
In positions with a material advantage a good rule of thumb is to exchange pieces, but not too many pawns.
We have considered drawing by stalemate before. A player is stalemated if he cannot play with any of his pieces (provided he is to move of course!) In the left part of the diagram ( $\Rightarrow$ ) White can still play with two of his pieces. The white bishop is pinned and is in danger of being lost. White can save himself with $\mathbf{1}$. Nb3+. Black is forced to take, and after 1. ... Bxb3 it is stalemate. In the right part Black can play with his queen and g-pawn only. Getting rid of the queen is a piece of cake. After 1. ... Qf6+ 2. Qxf6 it is stalemate. The g-pawn is all of a sudden pinned!
In the diagram $(\sharp)$ stalemate seems to be a long way away, since White can still play with no less than four of his pieces. Yet, White has a piece of drawing magic up his sleeve. After 1. Ne5+ Bxe5 (Black does not have much of a choice: 1. ... Kf6 2. Nd7+ loses the queen, while 1. ... Kf5 2. Qxh5+

loses the game) 2. Qg3+ fxg3+ (forced, since otherwise it is White who will win) 3. Kh3 it is a draw.
So much for stalemate. We now return to positions which are drawn on account of insufficient material.
The two parts of the diagram ( $\mathbb{(})$ contain the same amount of material. In the left part the bishop can control a8. This allows White to win the game: 1. a6 Ka8 2. Kb6
 Kb8 3. a7+ Ka8? 4. Bd5 mate.
Things could not be more different in the right part. Here White is unable to force the black king out of the comer: 1. h6+ Kg8 2. h7+ Kg7 3. Kh5 Kh8.
This variation illustrates White's problem: the white king cannot approach the pawn's promotion square on account of stalemate. The same problem emerges if White tries something different: 1. Bf5 Kg8 2. Kh6 Kh8 3. Be6, and it is again stalemate. Thus, if the defending king manages to reach the promotion square, the side with the bishop can achieve no more than a draw. In such cases, the bishop side has what is called the wrong bishop. The bishop and the pawn usually beat a lonely king. Only in those positions where the bishop does not control the promotion square of a rook's pawn, and the defending king is placed on the pawn's promotion square (or is within reach of it), does the game end in a draw.
In order to win a bishop plus rook's pawn versus king alone ending, the king must be prevented from reaching the comer square. In the left part of the diagram ( $\mathbb{B}$ ) the king and the bishop together deny the defending king access to the promotion square.
The right part of the diagram demonstrates that having the defending king in front of

the rook's pawn does not always guarantee a draw. White wins after 1. Kg6 Kg3 2. Kg 5 and 3. h4.
In the diagram ( $\uparrow$ ) we can see two winning positions where the assistance of the king is not required. In the left part the bishop and the pawn together shield off the enemy king. White plays a tempo move with his bishop or king, after which the black king is forced to leave the square of the pawn.
In the right part either a random king move or $\mathbf{1 .}$ Be8 suffices. White follows up with 2. h7, regardless of Black's reply.

Being able to recognize winning positions is a prerequisite for choosing the right strategy.
In the diagram ( $\Leftrightarrow$ ) White must keep away the black king from the corner of the board. He should therefore refrain from playing 1. Bc4+, since this runs into 1. ... Kg6. The correct move is 1 . Bh7, denying the black king access to h8. After 1. ... Kf6 2. Kf4 (the king's task is to control the g5-square) 2. ... Kf7 3. Kf5 Kf8 4. Kf6 Ke8 5. Kg7 White scores a full point.
In the diagram (8) 1. Bd5 is the only move that is winning. This position differs from the previous one in one important respect. Here 1. Bh7 does not win, since the White king is too far off. After 1. ... Kf7 2. Kf2 Kf6 (threatening 3. ... Kg5) 3. Bf5 Kf7! (threatening 4. ... Kg8) 4. Bh7 Kf6 White cannot make any progress.
So, we finally have a position in which the defending side manages to draw. We have looked at a number of positions that were winning for the side with the bishop above. Note, however, that the number of these examples in no way offers a representative picture. Positions in which the defending

king is already positioned in the corner are not very interesting. It is more interesting to consider the route that a defending king should take to reach this comer. The king should not always opt for the quickest way. There is always the danger that he can be shielded off by the opponent's pieces.
The diagram ( $\mathbb{0}$ ), where White is to move, contains an instructive example. Even quite strong players will play 1 . Kc5 without a moment's thought. The idea is clear: move the king towards the enemy pawn across the black squares (i.e. the colour that is not controlled by the bishop). However, after 1 . ... Ke5! Black denies the king access to al. This shows that the king must take another route. White draws after 1. Kd5 a4 2. Kd4 a3 3. Kc3 Bc4 4. Kc2 Ba2 5. Kc3.
If so desired, this lesson - and Step 5 as a whole - can be concluded with some lighthearted material. Ask the students to try and stalemate Black as quickly as they can, starting from the initial position (Black of course cooperates!). Capturing moves are allowed. This is not an easy task, especially if the aim is to reach stalemate as quickly as possible. The world record is quite an achievement. The world's fastest stalemate from the initial position, capturing moves included, is 10 moves: 1. e3 a5 2. Qh5 Ra6 3. Qxa5 h5 4. Qxc7 Rah6 5. h4 666. Qxd7+ Kf7 7. Qxb7 Qd3 8. Qxb8 Qh7 9. Qxc8 Kg6 10. Qe6 stalemate (diagram ®).
Another whimsical challenge, which can be covered at a later stage in the training, is to find the quickest way to stalemate Black if no capturing moves are allowed.
The world's fastest stalemate without any capturing moves is as follows:

1. d4 d6 2. Qd2 e5 3. a4 e4 4. Qf4 f5 5. h3


Be7 6．Qh2 Be6 7．Ra3 c5 8．Rg3 Qa5＋9． Nd2 Bh4 10．f3 Bb3 11．d5 e3 12．c4 f4 stalemate（diagram $\uparrow$ ）．
These gems are inventions of the brilliant Sam Lloyd．

## Reminder

$\diamond$ Draw
$\diamond$ Wrong bishop


## Practice

## Workbook

$\square$ Draw／Stalemate：$A$

## 业

Explanation：The defending side can force stalemate by cleverly giving away his last pieces or by playing his pieces to positions from where they can no longer move．The opponent does not have to accept these sacrifices，but refusing them is either plainly bad or the game will end in a draw anyway．
Mistake：The suggested solution does not lead to stalemate．
Help：$\quad$ Finding the mistake will not present any problems．After all，if it is not stalemate，then it is always possible to play a move．

宸宸
Explanation：The material on the board must be reduced to such an extent that the opponent can no longer give mate．In some positions certain pieces of the opponent must be removed； in other positions，it is necessary to go after the opponent＇s last pawn．
Mistake：The suggested answer is incorrect．
Help：Which aim did the student have in mind when he suggested the move？Which of the opponent＇s pieces can remain on the board without the risk of losing the game？ And which of the opponent＇s pieces should be removed？

[^1]the comer of the board, thereby drawing the game. There is only one correct route. Aside from asking the students to give the correct solution, it is also instructive to let them refute incorrect king moves.
The second part of this exercise sheet contains positions which are winning for the side with the bishop. The aim is to keep the enemy king out of the corner. Shielding off the king can be achieved through optimal cooperation between king, bishop and pawn.
Mistake: A drawn position is lost.
Help: Why is the king unable to reach the comer? Try another route!
Mistake: A winning position is drawn.
Help: The enemy king has reached the corner of the board. How can you prevent this?

Test / Mix: K
씰앃
Explanation: We have almost reached the end of Step 5. Mixed exercise sheets are always useful, and they offer the best indication of whether students can apply what they have learned to unfamiliar positions.
It is not advisable to skip these mixed exercise sheets for reasons of convenience. If the students have problems doing these exercises, then it is better not to let them take the exam, let alone continue with Step 6. It is pointless to offer the students new knowledge and skills if they cannot apply the knowledge and skills covered in Step 5.
Mistake: The position is not solved correctly.
Help: Ask the student to explain his reasoning. Which moves has he already taken into account? What are the characteristics of the position? Ask these questions first and then provide a general or - if required - a more specific search strategy.

Test / Mix: L

## 㧘膤

ANSWERS

## Draw / Stalemate: A

l) 1. Nf4+ Bxf4 stalemate
2) 1. f6 Qxf8 stalemate
3) 1. Qa8+Kh7 2. Qe4+ Qxe4 stalemate
4) 1. $\mathrm{Bd} 4+\mathrm{Qxd} 4$ 2. $\mathrm{Ne} 2+\mathrm{Nxe} 2$ stalemate
5) 1. Kh4 a3 2. Kh5 a2 3. h4 alQ stalemate
6) 1. $\mathrm{Be} 4+\mathrm{Kc} 72$ 2. Bg 2 Rxg 2 stalemate
7) 1. QdI + Qxdl stalemate
8) 1. Qf6 Kh7 2. Qxg7+ Rxg7 stalemate

## Draw / Insufficient material: A

1) Drawing
2) 3. Nc7+ Ka7 2. Bd4+ Qxd4 3. Nb5+
1) 2. Ke 4 Bg 4 2. Kf 4 Bh 5 3. Kg 5 Bg6 4. Kf4 Bh5 5. Kg5 Bg6 6. Kf4
1) $1 . \ldots$ Rf2 2 2. Kxf2 (2. Ke3 NdI\#) 2. ... Nxe4+
2) 1 .... glB 2. Rxfl stalemate ( 2 . Rc2 Bxf2+ 3. Rxf2 Kgl=; 2. Kd5 Bxf2 3. Rxfl+Kg2=)
3) $1 . \mathrm{h} 6 \mathrm{gxh} 6(1 . . . \mathrm{g} 62 . \mathrm{Kf} 6) 2$. Kf6 Ng8+ 3. Kg6
4) 5. ... b5 2. Nxb5+ Kc6 3. Kg2 Kb6 4. a7 Kb7

## Endgame / Wrong bishop: A

1) 2. Kf3; 1. Kxd4? Kg4 2. Ke3 Kg3; 1. Kf4 Kh4 2. Kf3 Kh3 and the king cannot reach the corner.
1) 2. Kf2! and the king will reach h1 (1. Kf3? Be5 2. Kf2 Bh2 3. Kf3 Kf5; 1. Kfl? Bd4)
1) $1 . \mathrm{Kc2}$ and Black is forced to relinquish his control of b 2 or bl; 1. Kc3? Bbl 2. Kc4 Kb2
2) 3. Ke8 Ne6 (1. ... Bxf6 stalemate) 2. f7+ Kg7 3. f8Q+ Nxf8 stalemate
1) 2. $\mathrm{Rg} 7+\mathrm{Kxg} 7$ 2. Bd4+ Qxd4 stalemate
1) 2. Ra6+ Bxa6 2. a8Q+ Kb6 3. Qa7+ Rxa7 stalemate
1) 2. a8Q (1. g5+? Kf7 2. g6+ Kg8 3. $\mathrm{a} 8 \mathrm{Q}+\mathrm{Bf} 8+) 1$.... $\mathrm{Bcl}+2$. g5+ Bxg5+ 3. Kh7 Rxa8 stalemate
1) 2. f8Q Nxf8 2. Kf6 Kd4 3. Kf5 Ke3 4. Kg4 Ne6 5. Kh5
1) 2. Re4 Qg5 (1. ... Qd8 2. Re8+ Qxe8 3. Nf6+) 2. Rg4 Qxg4 3. Nf6+
1) 2. d7 Qxd7 2. Bc6+ Qxc6 3. Nd4+; 2. ... Kxc6 3. Ne5+
1) 2. Nd5 Re5 2. Nf4+ Kg4 3. Nd3 Rd5 4. Nxel Rd2 5. Kgl
1) 2. Rd4+ Kc6 (1. ... Ke5 2. Re4+ Kxe4 3. Nc5+) 2. Rc4+ Qxc4 (2. ... Nbxc4 3. Nd4+; 2. ... Kd7 3. Nc5+; 2. ... Kb7 3. Nc5+; 2. ... Kb5 3. Nd4+; 2. ... Kd6 3. Rc6+!) 3. Na5+
(De Feijter 1940)
1) 2. Ke2! h3 2. Kf3; 1. a5? h3 2. Kfl Bc 5 and the black king stops the white pawns.
1) I. Kd6! Kxb7 2. Kc5 a4 (2. ... Ka6 3. Kc4 a4 4. Kb4!; 2. ... Be2 3. Kd4) 3. Kb4; 1. Kd4? a4 2. Kc3 a3 (Mockel 1962)
2) 3. Kel Kc5 2. Qxd5 + Kxd5 3. Kd 2 ; it is stalemate after $1 \ldots$

Qxg2.
7) I. Kf7 Kh6 2. Kg8 (keeping the black king out of the comer)
8) I. a5 Kd5 2. a6 Kc6 3. Bd8
9) I. Bb6 Kc6 2. Ba5
10) 1. Be8 Kf6 2. h6; 1. h6? Kf7 2. Be4 Kg8
$\square$ Test / Mix: $K$

1) 1 .... Qxh2 +2 . Kxh2 Rh6 + ; 1 . ... Rxe3 2. fxe3 (mate through access)
2) 3. Nxc6 Bxc6 2. Ne7+ (double attack : knight through capture)
1) 2. Bf5 Qxf5 2. Nd6+ (double attack: knight through luring)
1) 2. Qf4 f5 2 . Qe5 (better than 2 . Rxf8+); 1. ... Bxf4 3. Rxf8\# (luring away + mate)
1) 2. ... Ra3 (double attack: bishop by luring)
1) 2. d 5 en 2. Bxe4 (interposing)
1) 2. ... h3 2. Kf3 Bf4 3. Kf2 Bh2
4. Kf3 Kf5
12) 13. $\mathrm{Kc} 5 \mathrm{Ke7}$ 2. Kc 6 Kd 8 3. Kb7 $\mathrm{Kd74.Bcl}$ and now that the black king can no longer reach the comer, it is time to pick up the a-pawn.
1) 2. Bc7 Qxc7 2. Bxd5+ (pin: placing back piece)
1) 2. ... Ne4+2. Kf3 Qxc4 (double attack: knight)
1) 2. ... Qb6 2. Bxb6 Ne2\# (luring away + mate)
1) 2. ... Qel+2. Kxel Bb4+ (double check)
1) 2. ... Qbl+ 2. Kf2 Qfl+ (cashing in on passed pawn)
1) 2. Nf5; 1. Nb3? f6 (discovered attack)

Test / Mix: L

1) 2. ... Rcl 2. Rxcl Qdl + (luring away + mate)
1) 2. Ne6 fxe6 2. Qxe6+ winning a pawn (double attack: queen by luring)
1) 2. Bc8 Rxc8 2. Qxb7+ (double attack: queen by luring)
1) $1 . \ldots \mathrm{Qd} 2+2$. $\mathrm{Bxd} 2 \mathrm{cxd} 2+3$.

Kdl Nxh7 (defending against a pin)
5) 1. Nf5 Rxf5 2. R hl+ and mate (luring away + mate)
6) 1. Rxd6 Qxd6 2. Bxc5 Qxc5 3. Qxf6 (capturing + material)
7) 1. Nxd5 for $1 . . .$. Bxd5 2.

Nxf6+ (double attack: knight by luring)
8) 1. f3! Nxc3 2. Qxc3+; 1. Nxe4 Rxe4 2. Bf3 Rd4 (chasing away + material)
9) 1. ... Nd2 2. Nxd2 Rxgl+; 2. Rxg2 Nxf3+ (luring)
10) Drawing
11) Drawing
12) 1. Bd2 Qxe6 2. Bxe3+; 1. ... Bxd2 2. Ng4+ (double attack: knight by luring)

## List of concepts

| alternative | A move which, besides the move played, comes into <br> consideration. |
| :--- | :--- |
| blunder | A very bad move. The term is relative. At a lower |
| level, a blunder allows mate or loss of a piece. At a |  |
| higher level, a serious positional error is also consi- |  |
| dered to be a blunder. |  |
| Playing the pieces to the middle of the board so that |  |
| they gain mobility. |  |
| A forced series of moves leading to mate, loss of ma- |  |
| centralising |  |
| terial or a draw. |  |

\(\left.$$
\begin{array}{ll} & \begin{array}{l}\text { loss. There is no reasonable alternative. } \\
\text { A move in which time is won because the opponent }\end{array}
$$ <br>

has to play a more or less forced move.\end{array}\right]\)| A sacrifice in the opening phase, usually in the form of |
| :--- |
| a pawn. |
| gambit |

sion 'pieces' is also used to refer to pieces and pawns collectively. Which of the two meanings is intended will be clear from the context.

| place of battle | The part of the board where most of the action takes place. |
| :---: | :---: |
| ply | A term from computer chess which stands for half a move (i.e. a white or black move). |
| poisoned pa | A pawn which a player is ill-advised to take. |
| queenside | The part of the board that consists of the $a-, b-, c$, and dfiles. |
| quiet move | A (usually very strong) move that does not involve a check or a capture. |
| refute | Demonstrating that a certain move (or series of moves) is not correct. |
| resigning | Giving up a game before being mated. This only happens now and then at Step 5 level. |
| sacrifice | Giving up material voluntarily in order to gain another advantage or to avoid a greater disadvantage. |
| solving | To make a weakness disappear, e.g. undoubling a doubled pawn. |
| outpost | A square on an open file with support of a pawn (by preference on the half of the opponent) is an outpost. |
| strateg | A long-term plan. |
| tactics | A move or series of moves to force a material gain, mate or a draw. |
| tempo | Indication for a move (Italian for 'time'). |
| temporary sacrifice | A sacrifice in which the sacrificed material is won back within the next couple of moves. |
| trap | A move which, while perhaps not objectively the best, entices the opponent to play an obvious but wrong move. |
| tripling | Putting two rooks and a queen behind each other on the same file. |
| doubling | Putting two rooks of the same colour behind each other on the same file or next to each other on the same rank. White doubles on the d-file or Black doubles his rooks on the $2^{\text {nd }}$ rank. |
| Zugzwang | A situation in which the side that is to move cannot help but weaken his position. |

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| :--- | :--- |
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Lotte Stam-Beesestraat 78
3066 HB Rotterdam
The Netherlands
Tel: 31 (0) 104564122
Fax: 31 (0)10 4564184
E-mail: info@stappenmethode.nl



[^0]:    ANSWERS

    Endgame／Rook against pawn：A

    1）1．Kf2 Kd2 2．Rd8＋Kcl 3．Ke2 c2 4．Rc8 Kb2 5．Kd2
    2）1．Ke6 e3 2．Kd5 Kf3 3．Kd4 e2 4．Kd3
    3）1． Kd 7 Kc 42 ．Ke6 d3 3．Kc5
    Kc3 4．Ke4 d2 5．Ke3

    4） 1 ．．．．Kfl 2．Rf8＋Ke2 3．Re8＋ Kfl 4．Kf3 d2
    5） $1 . \ldots \mathrm{Ke} 3$
    6）1．．．．Kd4！2．Rf8 Ke3 3．Kc4 f3 4．Re8＋Kd2！
    7）1．．．．e3（1．．．．Ke5？2．Rel ；1．．．．

[^1]:    $\square$ Endgame／Wrong bishop：A 씰
    Explanation：In the first 6 positions the defending side must try to reach

