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MASTERING CHESS ENDGAME CALCULATION

THEORY AND EXERCISES

LEVEL 2

of the TRILOGY
that will take YOUR GAME
to the NEXT LEVEL!



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KEY TO SYMBOLS

=	Equality or equal chances
±	White has a slight advantage
∓	Black has a slight advantage
±	White is better
∓	Black is better
+ -	White has a decisive advantage
- +	Black has a decisive advantage
∞	unclear
∞	with compensation
↔	with counterplay
↑	with initiative
→	with an attack
Δ	with the idea
□	only move
N	novelty
!	a good move
!!	an excellent move
?	a weak move
??	a blunder
!?	an interesting move
?!	a dubious move
+	check
#	mate

EDITORIAL PREFACE

In recent years, tactical test books have become extremely popular in the chess book market. This is a sound trend, as the best way to study any subject is through intensive practice, much like in other sports. However, it is strange to note the complete absence of endgame test books in this market. While there have been some excellent endgame books published in the last decade, true mastery of the subject demands as much practice as possible.

Endgames typically occur in only 2-3 games out of 10 in players' practice. While it is possible to miss them in a game, every player must be ready to play endgames at any moment. Endgame technique is an extremely important ability for top players. Consider Aleksander Alekhine, who conducted a comparative analysis of his opponent Jose Raul Capablanca's style and discovered that he himself was much weaker in endgames. To improve his chances in the match, Alekhine dedicated half a year to studying endgames and proudly proclaimed that he was not weaker than the World Champion in this area. This effort greatly aided him in winning the long match later. Similarly, Garry Kasparov had to undertake a significant amount of work to improve his endgame knowledge before his match against Anatoly Karpov to close the gap in their respective abilities. Therefore, the development of endgame test books would be a valuable addition to the market, allowing players to practice and improve their endgame technique and ultimately become stronger overall players.

In the endgame, we encounter two types of positions: theoretical, or basic positions and practical position. Theoretical positions are detailed in endgame manuals with precise explanations on how to win or draw them. At the Grandmaster level, there are around 100 such positions, which are well-organized in the book "100 Endgames You Must Know" by De La Villa. However, the number of basic positions required for different levels of players varies. For players at the first level, up to 1500 rating, it is important to know around 30 of the most important theoretical positions, along with some key methods for handling endgames.

We have decided to develop three levels of endgame books that cater to players with varying strengths. The first level will target players up to 1700 rating, the second level for players between 1500-2100 rating, and the third level for

players over 2000 rating. Each book will contain an introduction outlining the basic positions that are essential for players at that level to know. However, we acknowledge that the most effective way to improve endgame skills is through practice. Therefore, we will include exercises in each book that allow players to apply the concepts and techniques learned from both theoretical and practical positions covered in the book.

The second type of endgame positions are practical positions. These positions typically require special endgame methods and techniques such as centralizing the king, using passed pawns, and making exchanges to transition into basic positions. It is important to understand these techniques for both realizing advantages and defending against them. Additionally, there are special endgame tactical methods, such as stalemate, which can be used to achieve different goals. To gain expertise in these practical endgame positions, it is recommended to study specialized endgame books and analyze games played by the greatest endgame specialists, such as Capablanca, Rubinstein, Smyslov, and Fischer.

Throughout history, it has been widely accepted that a real game of chess must contain all three phases of the game: the opening, middlegame, and endgame. If a game does not reach the endgame, it is likely that one or both players have made significant mistakes. Some of the greatest authorities in chess, such as Capablanca and Smyslov, have even recommended starting the study of chess from the endgame, as there are fewer pieces on the board and beginners can more easily learn how to create piece cooperation. However, to date, there are no established systems for teaching and studying chess in this way. Nevertheless, a few players, such as Karpov and Kramnik, have used this approach in their early years and have achieved extremely high levels of technical proficiency as a result.

One issue that arises is that young players often find endgame studying boring. However, trainers can take steps to make it more engaging. Endgames can be truly beautiful when analyzing games played by top players. Trainers should provide pupils with a good selection of instructive and aesthetically pleasing studies. Including exercises in the endgame books can also make it more interesting for players. Moreover, there are many examples of great players mishandling endgames terribly due to improper study of basic positions or methods, or lack of practical experience. There are even cases of grandmasters resigning in drawn positions or offering draws in winning positions! Through exercises,

we can learn from the mistakes of the greats and understand the reasons behind each decision, improving our endgame logic and decision-making.

HOW TO USE THE BOOK?

The book is divided into two parts. In the first part, we cover essential theoretical positions, well-known techniques, and how to give the King a key role in the endgame. We recommend studying the examples provided carefully before proceeding to the second part of the book.

The second part of the book is all about putting theory into practice, offering a whopping 400 puzzles categorized into two difficulty levels. Puzzles with three stars are suitable for players around an 1800 rating, while the four-star ones are designed for more advanced players. These exercises are neatly organized into six chapters: building on the initial four from the first book—winning the game, defense, decision-making, and realizing advantages—we’ve introduced two intriguing additions in the second book: answering the question and playing better than champions. In the “play better than champions” section, you’ll be challenged to make moves or sequences better than those of world champions or grandmasters. Each chapter provides solutions to the exercises at the end.

We strongly recommend solving the puzzles without physically moving the pieces, as it will help you enhance your visualization and analytical skills.

Yours, Tadej Sakelšek & Adrian Mihalcisin

THEORETICAL PART

Mastering the endgame requires more than just brute calculation; it also requires a deep understanding of a set of basic positions. These positions provide a framework for navigating the complexities of the endgame, making it easier to find the best moves and avoid costly mistakes. While every type of endgame has its own set of basic positions, what is most important is knowing how to handle them correctly.

It is important to note that players at different levels should aim to know a certain number of basic positions. Trying to remember too many positions can be overwhelming and counterproductive. For example, players below a rating of 1500 should aim to learn around 30 basic positions, while those below 2100 should aim to learn around 100. In addition to basic positions, players should also learn special endgame techniques that differ from those used in the middlegame. One of the most important skills to master is knowing how to exchange pieces and pawns effectively.

Repetition and analysis are key to improving endgame play. While

players often focus on studying openings, revisiting the set of basic positions for their level and analyzing recent endgames of top players can be just as beneficial.

Magnus Carlsen, the World Champion who has had the most profound influence on people over the past two decades, is widely considered to be the best endgame technician in the world. However, even he had to work hard to overcome his early struggles with the endgame. His dedication paid off, as his mastery of the endgame was evident in his World Championship match against Vishy Anand, where he won with two impressive endings.

1. ENDGAMES WITHOUT PAWNS

The ideal start for this chapter seems to be “Endgames without pawns.” In our first book, we explored checkmating with one or two pieces. Now, in this book, our focus shifts to the nuances of check-

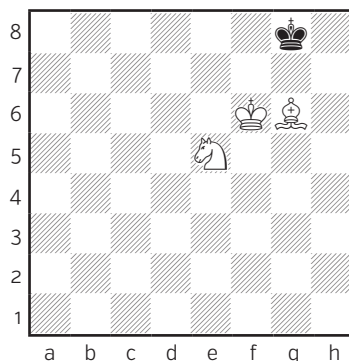
mating with the Bishop and Knight. Additionally, we'll analyze positions featuring the Rook vs. Bishop and Rook vs. Knight. Although a well-known Queen vs. Rook endgame position exists, we'll reserve its exploration for a later chapter.

1.1. MATE WITH THE BISHOP AND KNIGHT

As elucidated in the first book, achieving checkmate with the Bishop and Knight is only possible in the same-colored corner as the Bishop. Hence, the task is relatively straightforward — drive the King to the opposite-colored corner. This can be accomplished in two distinct ways. The crucial first step is to establish the basic position, transitioning from there to another pivotal formation known as the wall.

Let's explore the process:

Example 1



1. ♞f7!

White will systematically restrict squares, thereby compelling the black King into a light-colored corner.

1... ♔f8 2. ♞h7

This is known as the Basic Position. From this point onward, every move becomes predetermined, providing an opportunity for each player to study and strategize accordingly.

2... ♔e8 3. ♞e5

A crucial maneuver executed by the Knight.

3... ♔d8

3... ♔f8 If the King retreats to f8, then 4. ♞d7+ ♔e8 5. ♞e6 and the po-

sition will transition into the main line.

4. ♖e6!

It appears that the black King is running out of options, with the white Bishop and Knight effectively controlling all escape routes.

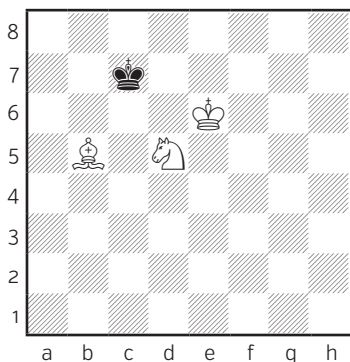
4... ♗c7 5. ♘d7

Controlling the crucial b6 and c5 squares becomes pivotal. When the attacking side possesses a light-colored Bishop, ensuring control over dark squares through the Knight or the King becomes essential.

5... ♕c6 6. ♗d3! ♗c7 7. ♗b5

The Bishop is now positioned on the correct square.

7... ♔d8 8. ♘f6 ♗c7 9. ♘d5+



Now we have THE WALL, signifying that the defending King can no

longer escape, even without the assistance of the attacking King.

9... ♔d8 10. ♗d6 ♗c8

The final stage lies ahead for White, who must outflank the Black King from the side.

11. ♗e7 ♗b7 12. ♗d7 ♗b8 13. ♗a6 ♗a7 14. ♗c8 ♗b8 15. ♘c3

Another way to mate is 15. ♘b4 ♗a7 16. ♗c7 ♗a8 17. ♗b7+ ♗a7 18. ♘c6#

15... ♗a7 16. ♗c7 ♗a8 17. ♗b7+ ♗a7 18. ♘b5#

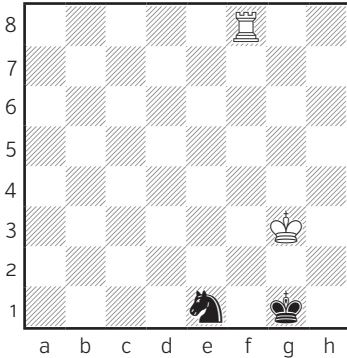
1.2.

ROOK VS. KNIGHT

This particular endgame holds significant practical value, and, in general, the game should result in a draw if the side with the Knight defends correctly. As we observed in the first book, in the Theoretical part (Example 21), the promotion of the Knight in Rook vs. pawn endgames is a prevalent and effective defending technique.

For the side with the Knight, it is crucial to maintain the Knight's proximity to its King and steer clear of corner squares.

Example 2



In this example, we'll explore the proper defensive strategy and illustrate how quickly things can go wrong with a single incorrect move.

1...♖g2!

a) 1...♖c2 Still effective, but it appears the Knight has chosen an incorrect direction. It's crucial to remember that the Knight should stay close to its King. 2.♜e8 ♕f1! =;

b) However, a completely incorrect move would be 1...♖d3? as after 2.♕f3! ♖e1+ 3.♕e2 ♖g2 4.♜h8+- and Black is lost.

2.♕f3

The position is trickier than it appears.

2...♕f1?

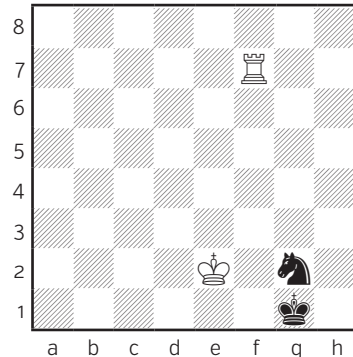
It may seem strange, but this move leads to a loss.

The only correct move is 2...♖h4+! 3.♕e2 and now 3...♕g2! (But certainly not 3...♖g2? as this particular move results in a theoretically losing position. 4.♜h8+-) 4.♜g8+ ♕h3 5.♕f2 ♖f5= Certainly, White should aim to play for a win, but Black shouldn't encounter too many difficulties in maintaining the balance.

3.♜f7!

A strategic waiting move, compelling Black to compromise its own position.

3...♖e1+ 4.♕e3+ ♕g1 5.♕e2 ♖g2

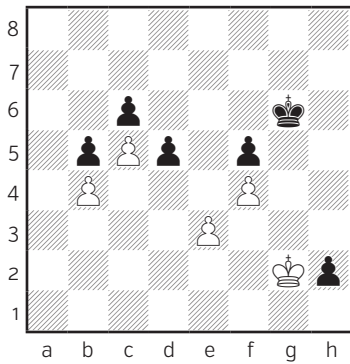


A position worth remembering, as it is one where the Knight succumbs to the Rook. Although the winning technique remains complex.

EXERCISES

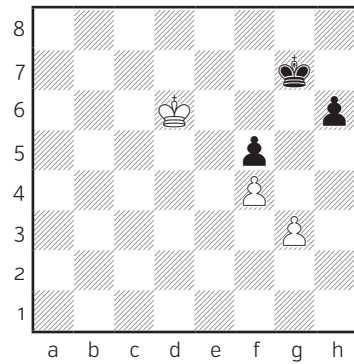
WIN THE GAME 3 – EXERCISES

Exercise 1



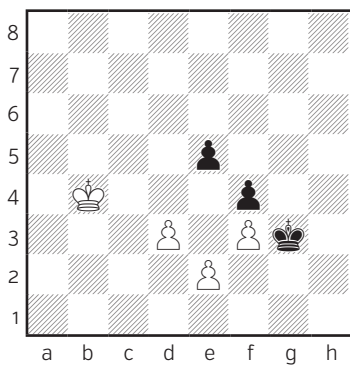
Black to play. Win the game!

Exercise 3



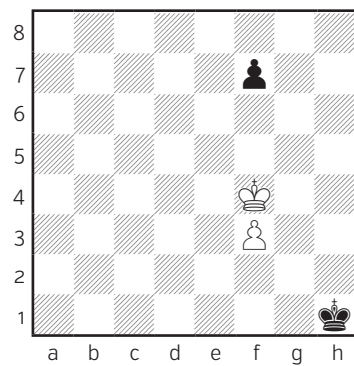
White to play. Win the game!

Exercise 2



White to play. Win the game!

Exercise 4



White to play. Win the game!

WIN THE GAME 3 – SOLUTIONS

Exercise 1

The optimal approach was to activate the King by maneuvering it through the center.

45...♔f6!

Wrong was tempting 45...♔h5
46.♔xh2 ♔h4 47.♔g2 ♔g4 48.♔f2
♔h3 (48...d4?? 49.exd4 ♔xf4 50.d5
cxd5 51.c6+-) 49.♔f3 ♔h2 50.♔f2=

**46.♔xh2 ♔e6 47.♔g3 d4! 48.exd4
♔d5 49.♔h4 ♔xd4 50.♔h5 ♔e3
51.♔g5 ♔e4+-**

Stigar,P-Dastan,B Vienna 2013, 0-1

Exercise 2

61.d4!

Too slow was 61.♔c4? ♔f2 62.♔d5
♔xe2 63.♔xe5 ♔xf3 64.d4 ♔e3 is just
a draw.

61...exd4

61...e4 62.fxe4 ♔f2 63.e5 ♔xe2 64.e6+-

**62.♔c4 ♔f2 63.♔xd4 ♔xe2
64.♔e4+-**

Donchenko,A-Prusikin,M Austria
2023, 1-0

Exercise 3

A humorous twist lies ahead for White, who must navigate its King to the h8 square to secure victory in the king's duel:

1.♔e7 ♔g6 2.♔f8!

The most logical move 2.♔e6? is met by stunning 2...♔h5! a stalemate idea saves the game. 3.♔xf5=

2...♔f6

2...♔h5 3.♔g7 ♔g4 4.♔xh6 ♔xg3
5.♔g5+-

**3.♔g8 ♔g6 4.♔h8! ♔h5 5.♔g7 ♔g4
6.♔xh6 ♔xg3 7.♔g5+-**

Training position, 1-0

Exercise 4

64.♔g3!

The goal is to stop the black King from attacking the pawn. So, the plan is straightforward: advance the pawn