

**Peter Giannatos**

# **Everyone's First Chess Workbook**

**Fundamental Tactics and Checkmates for Improvers – 738 Practical Exercises**

**New In Chess 2021**

# Contents

|  |     |
|--|-----|
| Foreword .....   | 7   |
| Preface .....  | 10  |
| Introduction .....   | 12  |
| <b>Part I</b> General Board Visualization .....                | 23  |
| Chapter 1    Capturing Free Pieces .....                       | 24  |
| Chapter 2    Counting Attackers and Defenders .....            | 32  |
| Chapter 3    Intro to Defense .....                            | 41  |
| Chapter 4    Assorted Checkmates in One .....                  | 49  |
| <b>Part II</b> Introduction to Chess Tactics .....             | 75  |
| Chapter 5    Forks .....                                       | 76  |
| Chapter 6    Pins .....  | 96  |
| Chapter 7    Skewer .....                                      | 114 |
| Chapter 8    Discovered Attack .....                           | 122 |
| Chapter 9    Discovered Check and Double Check .....           | 130 |
| Chapter 10   Removing the Guard .....                          | 141 |
| Chapter 11   In-Between Move .....                             | 149 |
| Chapter 12   Decoy .....                                       | 157 |
| Chapter 13   Overloaded .....                                  | 167 |
| Chapter 14   X-Ray .....                                       | 175 |
| Chapter 15   Interference .....                                | 183 |
| Chapter 16   Trapping Pieces .....                             | 191 |
| Chapter 17   Defense/Recognizing Threats .....                 | 199 |
| <b>Part III</b> Intermediate Checkmates and Combinations ..... | 211 |
| Chapter 18   Assorted Checkmates in Two .....                  | 212 |
| Chapter 19   Themed Checkmate Patterns .....                   | 234 |
| Chapter 20   Combinations/Setting up Tactics .....             | 275 |
| Chapter 21   Finish like the World Champions .....             | 304 |
| <b>Part IV</b> Solutions to Exercises .....                    | 321 |

# Foreword

As a chess coach, I have answered thousands of questions on every imaginable topic related to chess improvement. At first, I struggled to provide succinct and meaningful responses even to the most straightforward queries: ‘What is the best book on positional chess?’ ‘How many puzzles per day should I solve?’ ‘How do I learn theoretical endgames without dying of boredom?’

Gradually, I developed the ability to assist my students in formulating a training regimen that suited their level, time constraints, and learning style. With over a decade of teaching experience under my belt, there is almost no question that leaves me stumped. I am confident that I can point my students to the best book on positional chess at their level (and no, it is not a certain volume called *Mastering Positional Chess*) or estimate the number of puzzles that they should aim for in a day. I have no problem telling a talented young student’s parents which tournaments I think their son or daughter should travel to over the summer.

Yet, there is one question that continues to bedevil me to this day. It was first posed to me years ago by the father of a talented girl (I will refer to her as Emily for the sake of privacy) whom I was teaching at the time. After showing a lot of promise in her first few months, Emily had gotten stuck at a rating of approximately 700, unable to make further progress for over a year.

At our initial consultation, her father expressed frustration that she seemed to solve basic puzzles effortlessly during a training session, yet the simplest tactical and mating patterns eluded her during tournaments. She would spot hanging pieces and checkmating patterns with ease during their casual blitz games, but blunder those very same pieces and miss those very same checkmates when a clock and a scoresheet were added. On my way home, I searched every corner of my mind for an explanation to this inconsistency. The only plausible theory I came up with was that Emily’s weakness lay primarily in the realm of *pattern recognition*. During the game, no one taps you on the shoulder and politely notifies you when your tactical detector should be going off. Emily’s tactical detector was malfunctioning.

This is a problem shared by many players in Emily’s rating range. Chess enthusiasts both young and old who climb the very first steps toward chess mastery with relative ease often get stuck at a kind of improvement no-man’s land, when one must learn to consistently spot basic patterns and apply them at the board. The book you hold in your hands is, to my knowledge, one of the first attempts to help those who find themselves stuck in this difficult spot.

As the author, my good friend FM Peter Giannatos, phrases it in his introduction, ‘developing keen tactical vision is important, but there are very few resources

which compile the exercises in a structured and exhaustive way that is conducive to developing the student's board vision.' Those last two words – board vision – are the most important ones in the sentence. Board vision is exactly what Emily needed in order to cross the barrier to the next level. And after carefully examining this book's contents, I am supremely confident that this book would have helped her do just that. Indeed, this book will be tremendously helpful whether you are looking to improve your knowledge and recognition of the most basic patterns that make up tactical mastery or advance your ability to spot and calculate longer sequences and calculations.

Tactical puzzle compilations exist by the basinful. This book is not just another puzzle compilation. Most puzzle books contain hundreds of puzzles that are haphazardly sorted by theme. They are certainly useful in helping to build rote tactical vision, but online tactics servers such as ChessTempo.com essentially do the same thing, in a fashion more convenient and accessible to the average player. Peter has broken down each chapter into well-thought out topics and themes that are frequently glossed over or improperly defined in puzzle books. Each chapter contains two different types of exercises: the guided exercises arm the solver with key elements of the position that assist in finding the solution, while the test exercises give the conscientious solver an opportunity to fully master the theme.

I have reviewed every single exercise in the book, and I can attest to the tremendous care and detail that Peter has poured into their creation and selection. The problems are clean, without unnecessary fluff that detracts from their instructive value or clunky alternate solutions. The more difficult problems often ask the reader to find a preliminary move that sets up the combination, an addition that I find to be incredibly helpful in building the kind of board vision which is helpful in real games. The solutions are equally clean and well-written. In short, there is not a single exercise that does not substantively build up the reader's understanding of the theme at hand. There are also not many books that are geared both toward a player at the very start of his or her tactical journey, as well as a more seasoned beginner who is looking to master more complex tactical patterns and 2-3 move combinations.

But perhaps the most innovative quality of the book is the fact that it is not a book at all! Okay, I may have scared you there... it is a book, but it is more accurate to refer to it as a workbook. I cannot transmit the number of times that I have assigned exercises from a book, only to find that the solutions were either illegibly scribbled in the margins or written in some mythical 'solutions notebook' that never quite seemed to materialize. This book eliminates the problem by providing ample dedicated space beside each exercise. This is tremendously helpful for both students and coaches, who can assign homework from the book without having to worry about being unable to review the solutions.

As Peter's close friend, I watched him labor over this book for many months. The effort that he put into it shines through on every page. It is now up to you, dear reader, to expend the same effort to solve these exercises and learn the lessons contained therein as Peter expended in curating and organizing them. If you are willing to do so conscientiously, if you are willing to solve and sometimes revisit each exercise and explanation in the book, you may very well find that your stay in chess no man's land will be a short one.

GM Daniel Naroditsky  
Charlotte, North Carolina, USA

May 2021

## Preface

While I was teaching countless classes to thousands of beginner students over the last decade, it had always been apparent to me that there was not enough organized material to assist students in improving their board vision at an early stage. Board vision, or the ability to recognize opportunities on the chess board, is the most important skill a chess player can learn. The better one's tactical and calculation ability, the better of a chess player they can become.

Everyone recommends 'doing tactics' or maybe you have even heard the saying 'chess is 99% tactics'. Developing keen tactical vision is indeed important, but there are very few resources which compile the exercises in a structured and exhaustive way that is conducive to developing the student's board vision. Most students are solving tactics using books or online tactics servers that provide no structure or explanation. In this workbook, I strive to provide a step-by-step guide to improving board vision by breaking down each topic into separate chapters, as well as by providing the necessary number of supplemental problems to represent each concept.

In addition, many of the resources available were not actually 'workbooks'. When I reached out to New in Chess about my interest in writing this book, I specifically asked for it to be formatted as a workbook. They graciously agreed to structuring it as a traditional workbook, which is a bit different from what they have done in the past. My desire to create a traditional workbook is so students can enhance their board vision and tactical skills by combining reading, writing and comprehension skills. You can read more on the value of this in the introduction.

Lastly, I had a great desire to create a workbook that everyone could use. One of the most beautiful facts about chess is that age does not play a vital role in one's ability. Throughout my chess career, I have seen eight-year-olds that had the same rating as players who had been playing for decades. The need for quality fundamental material does not discriminate based on age or any other factor. Regardless of when the student is making their first strides in chess, this book will provide the necessary and fundamental knowledge they need to becoming better at visualizing the board.

This resource is something that I wish I had years ago and hope that it will greatly assist in providing coaches and students alike with the resources they need to establish a fundamental level of checkmating and tactical abilities. I have full confidence that students, of all ages, who genuinely read the explanations and solve all the problems this book will see a drastic improvement in board vision and in turn their chess-playing ability.

### **Who is this Book For?**

Any student who knows the rules of the game but is having trouble visualizing opportunities on the board. The only assumption for this book is that students must have learned all the fundamental basics of the game, such as: piece movement, board set-up, check, checkmate, stalemate, and the special rules (castling and en passant capturing).

This workbook is great for students who are:

- Unrated – no tournament experience but know the rules of chess.
- Rated under 1000 over-the-board.
- Rated under 1300 online.

By reading the explanations and solving all the puzzles in this book, students will:

1. Gain a more structured approach to thinking tactically.
2. Add to their pattern recognition.
3. Refine their problem-solving ability.
4. Enhance their overall vision of the chess board.
5. Increase their overall playing ability.

Peter Giannatos  
Charlotte, North Carolina, USA

May 2021

# Introduction

## Goal of this Book

Before you can seriously progress as a chess player, you must first develop better board vision. Board vision is instrumental to chess growth, no matter what level. As you progress as a player, there will always be an emphasis on improving board vision and calculation. Once you have the necessary tactical foundation, you will be able to continue your growth by pushing yourself to go deeper in calculation. For any chess player, myself included, one of the key areas of improvement is depth and accuracy of calculation. No matter how experienced you are, there is always room to improve your board vision.

Strategy, the other element of chess, is not featured in this book. While this is important, it's best to first learn how to visualize the chess board. Strategic ideas are certainly important but require great precision and board vision to successfully carry out. Before you dig deeper into chess strategy, it's important to first learn how to command your army.

This book is designed to help you organize your thoughts and develop a better way of approaching tactical situations. In addition, the organization and repetition of concepts will also help you better remember patterns, which is instrumental to enhancing your total vision of the chess board.

## Book Sections

- **Part I – General board visualization**
  - This part deals with fundamental concepts related to board vision: taking free pieces, counting attackers and defenders, basic piece defense, and checkmates in one move.
- **Part II – Introduction to tactical vision**
  - Tactics are often surprising and abstract ways of obtaining an advantage in chess. Each tactic is assigned its own chapter along with relevant problems. So that you don't get carried away with game-winning moves, I have also added a special chapter on defense.
- **Part III – Intermediate checkmates and combinations**
  - The last part focuses on winning the game in two moves or more. In this part, you will practice checkmates in two, learn advanced checkmate patterns, and practise combinations. This part of the book is designed to bring all the concepts from Parts I and II together. The ability to combine different patterns and themes into game-winning sequences is the final step from beginner to intermediate tournament player.



### What's Different?

- Chapters are broken down into two sections: a guided practice section and a test section.
  - In the guided practice section, I help you solve the problems by pointing out things to look for in each position. This is designed to help you develop your ability to identify the specific patterns in each chapter. Once I feel like I've helped you enough, you'll be on your own in the test section.
- Each chapter is assigned a defined topic.
  - There are an exhaustive number of puzzles to represent each topic. Repetition of the patterns is an essential key to learning. I have included the number of puzzles I feel is necessary to learn the concepts at hand.
- A place to write your answer.
  - In this book, you will have to write your complete answer using chess notation. That means both what you will play, and, if a puzzle takes more than one move, what your opponent will play. One reason for this is so that you can practice taking notation, an essential skill for tournament play. Another reason, and arguably even more important, is that by having to log both your move and the opposing move, you push yourself to find your opponent's moves and not just your own. The combination of finding winning moves, and the best defenses to those moves, will improve your visualization and calculation abilities drastically.

### How to Use the Book

- The book is organized in the order that you should learn the concepts;
- Always read the text and example problem at the beginning of each chapter;
- Solve all the problems in the chapter before checking the answer key;
- Give yourself at least five minutes to solve each problem before skipping one;
- If you get a problem wrong or are unable to solve it, set the problem up on a physical chess board and try again;
- Write your complete answers in the book.

### Board Vision

I break down board vision into the following categories:

1. The ability to visualize the movement of the pieces through a series of moves;
2. The ability to visualize the chess board at the completion of those moves.

Helping beginner and intermediate players develop these types of board vision is almost completely neglected in chess literature. Too often, fundamental concepts are taken for granted by chess authors. As a coach, I think there is nothing more important than learning the fundamentals properly.

### **Importance of Tactics**

The purpose of tactics is to obtain an advantage and/or to help you prevent your opponent from gaining one. Tactics can often be abstract and overlooked since they are not always the most obvious moves. The result of a successful tactic could be game ending, like checkmate, or it could mean winning material. Tactics may also be used to prevent your opponent from winning the game.

### **Note to Coaches**

Learning can be broken down into four main categories:

1. Visual;
2. Auditory;
3. Kinesthetic (hands-on);
4. Reading and Writing.

The major format difference of this book, compared to others, is that students are able to write their answers in the book. I would not allow students a pass on this step unless the student has not yet learned how to read or write. Analytical comprehension goes hand in hand with chess, as students are both surveying and attempting to comprehend the position. The literary comprehension comes in the form of the guided hints (reading) and the notation keeping (writing). Part of the educational value of the book is that students can practice both analytical and literary comprehension. The analytical and literary comprehension aspects used in the book are known tools in education.

According to the study *Read to Write* by Graham & Hebert (2010), 'evidence shows that having students write about the material they read does enhance their reading abilities.' Later in the same section they go on to add, 'Answering questions about a text can be done verbally, but there is greater benefit from performing such activities in writing. Writing answers to text questions makes them more memorable, as writing an answer provides a second form of rehearsal.'

Citation: Read to Write by Graham & Hebert 2010

After introducing a topic to the student, have them attempt all the supplemental problems in the chapter before moving on to the next. For each problem missed by the student, you should set up the puzzle on a physical board and provide a leading hint. Setting up the problems on a physical chess board (kinesthetic) can be a great learning tool as it offers a different dimensional perspective (visual). Of course, there is no great way for me to create auditory learning through a physical book. This workbook will likely make it to Chessable, where a guided video course may be created adding even greater value for the auditory learner.

I hope that you find this resource useful for your students. I have spent the last decade teaching students of all ages the fundamental basics and cannot tell you how

much I wish I had a resource like this during those years. By having your students work through this book, they will learn the fundamental thought processes, concepts, and patterns related to tactical thinking.

### **General Advice for Students**

Chess is an extremely fun game to play and learn, but it's also difficult. You will be a student of the game forever. Having said that, most of us want to improve and there is only one well known way to do that – hard work. I have yet to come across a student that puts in the hard work and does not increase their level of play. Of course, as with most things, there is always an upper bound. All of us have so much more to learn before we reach our limit.

In this book, we focus on the fundamental building blocks of board vision: checkmates and tactics. If I could recommend one sure way for you to become a better chess player, it would be increasing your checkmating and tactical ability. Fortunately, you are holding the right book in your hands to get you started with that!

The need to work on your tactical and calculation abilities will not go away after reading this book. There are always new patterns and themes to learn. Having said that, by going through this book, you will have the necessary foundation to take on any puzzle that comes your way from here on out.

I sincerely hope you will enjoy going through this book and I know it will be useful for you. Carefully go through each chapter, and do not rush. It's okay to get problems wrong, just be sure you understand why before moving on to the next chapter. If you give this book your all, and seriously try to solve each puzzle, I am confident that your tactical ability will be that of a four-digit OTB rating level. Have fun, improve your skills and be sure to write me success letters after you complete the book!

### **Terms and General Knowledge**

#### **Algebraic Chess Notation**

K = King

Q = Queen

R = Rook

B = Bishop

N = Knight

x = captures

+ = check

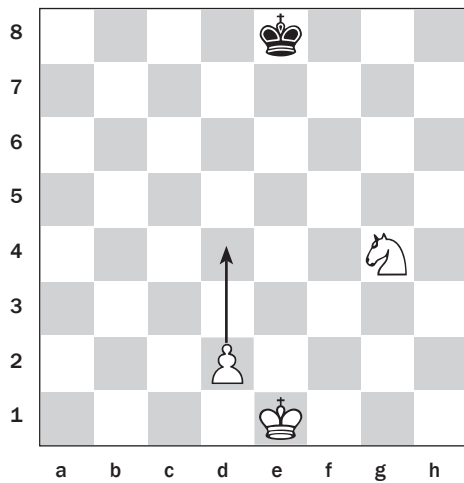
# = checkmate

0-0 = Kingside castle

0-0-0 = Queenside castle

note: Moves without a capital letter are assumed to be pawn moves.

### Notation Example 1

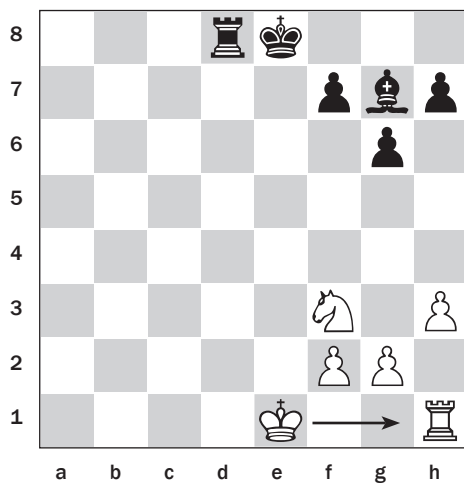


If White wanted to move the pawn as shown above, the notation would be written as:

**1.d4**

Notice that with pawn moves there is no capital letter before the coordinate square. Only the destination square of the piece needs to be written. Coordinate squares are always kept lowercase.

### Notation Example 2

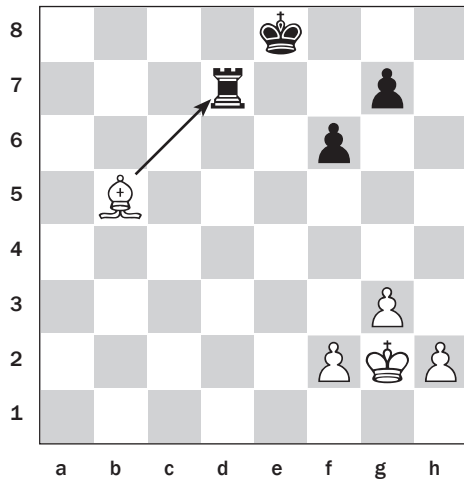


Let's suppose White wanted to castle here, the notation would be written as:

**1.0-0**

Since White castled kingside, castling is written as 0-0. If White were castling queenside, it would be written as 0-0-0.

### Notation Example 3



Let's suppose White wanted to capture the rook on d7, the notation would be written as:

**1.Bxd7+**

Since the move is a capture, White writes 'x' to show that. In addition, Black would be in check after the capture so the '+' is added to depict that. Notice that the letter 'B', for bishop, is capitalized. The piece you are moving should be written as a capital letter, the square the piece is moving to is kept lowercase.

### Relative Piece Values

King = Invaluable

Queen = 9

Rook = 5

Bishop = 3

Knight = 3

Pawn = 1

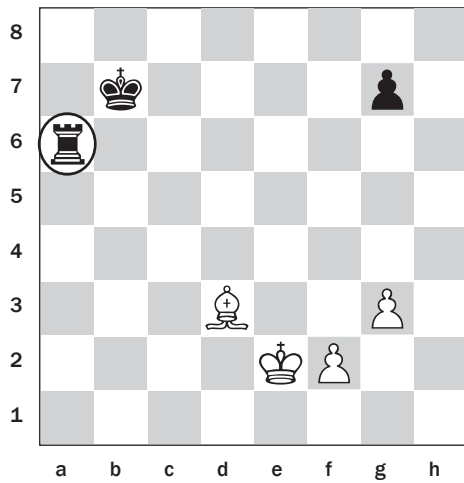
The queen and rook are classified as **major pieces**. The bishop and knight are classified as **minor pieces**.

The relative values of pieces in chess are extremely important to understanding the game. When you first begin, it is typical to have an immense attachment to each piece and to try to keep all of them – that is impossible.

It is normal in a chess game for pieces to arrive in conflict with one another. Trading, or the exchanging of pieces, is going to happen regularly throughout a game. The purpose of the piece values is to assist you with making good trades. You should not consider trading as 'losing' pieces. You are not 'losing' anything unless you make a bad trade.

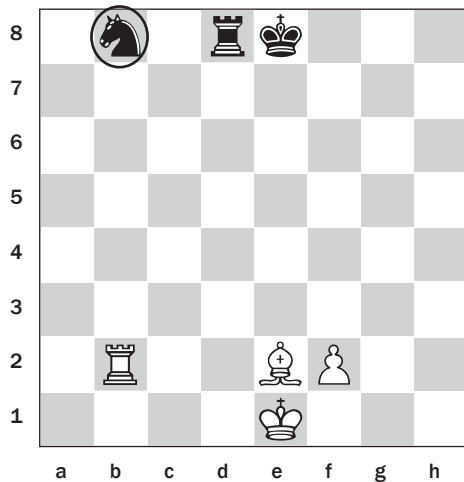
Let's take a look at a few examples:

### Example 1



In this example, White could capture the rook on a6. The rook on a6 is protected by the king, which means that White would gain a rook for a bishop in this trade. That is a good trade for White. White is getting 5 material points for the rook, while Black is only getting 3 material points in return. White should not consider this 'losing a piece', quite the opposite, White should consider this a big gain.

### Example 2



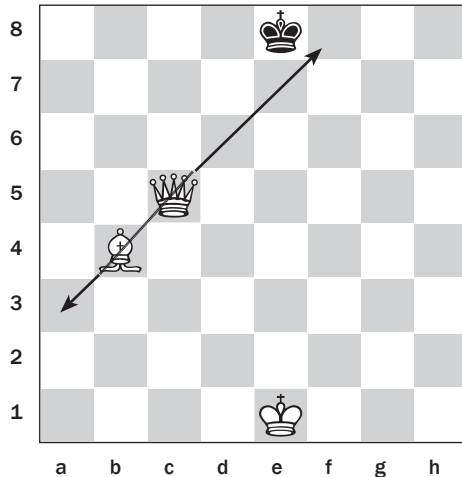
In this example, White could capture the knight on b8. The knight on b8 is protected by the rook on d8. This is a trade that White would not want to make and indeed he would lose material on the trade. If White captured the knight, they would be trading a rook (5) for only a knight (3). That would be considered a bad trade and should be avoided.

The piece values are considered relative for a reason: in some special circumstances, the pieces could have greater or less value. Having said that, in most cases the point values are accurate and should be used for guidance in trading.

### Chess Terms Regularly Used Throughout the Book

Attack – When a piece is being threatened.

Battery – When two of your own pieces align with each other and can move along the same rank, file, or diagonal (see diagram below).



The Exchange – The exchange is the difference between a minor piece (knight or bishop) and a rook. For example, if White gives away a bishop but gets a rook in return, White would have ‘won the exchange’.

Material - The number of pieces you have.

Note to student: material is not everything in a chess game but is an extremely important factor. All else being equal, the greater your material advantage, the better chance you have of winning the game. In general, we consider a winning material advantage a 2-point material advantage or greater (see piece values on page 17).

Hanging – A piece that is attacked and unprotected may be referred to as a ‘hanging piece’. Example: ‘the bishop on e4 is hanging.’

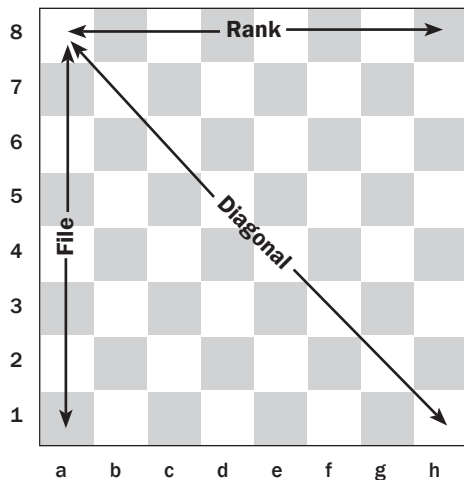
Trading – Exchange of pieces or giving one piece away for another.

### The Chess Board

Diagonals – Slanted lines that match the same color squares.

Files – Columns that run up and down the chess board. Files are represented by the letters along the side.

Ranks – Rows that run across the chess board. They are represented by the numbers along the side.



### Workbook Solving Tips

When solving the problems in this book, particularly in Parts II and III, you must look for forcing moves:

1. Checks;
2. Captures;
3. Threats.

**Checks** should be the first thing you look for in any position. Checks are the most forcing moves possible. Being able to place your opponent in check is not inherently strong or weak, but because your opponent is forced to respond, it enables you to better calculate what may happen thereafter. Similarly, you must determine whether your own king is vulnerable to checks.

**Captures** (taking pieces) are next important for a similar reason. Captures are the second most common type of forcing move. Generally, when you capture a piece of your opponent's you can expect they would want to capture back since if they do not, they would be at a material disadvantage.

**Threats** are attacks on an enemy piece or square where if ignored the player would gain a winning advantage. Most of the time, your opponent must react to a threat and thus can also be labelled as a forcing move.

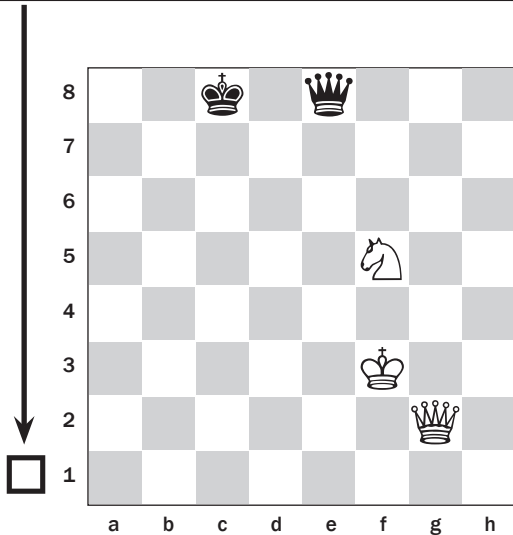
In addition to the forcing moves listed above, it will also help to pay attention to **unprotected pieces**. In many chess tactics, material is often won because of pieces that are not well protected. Which leads us into our first chapter, 'Taking free pieces'.

Forcing moves will be something you will have to think about in each tactical position you solve. Bookmark this page and visit it as many times as you need to!



## How to Complete the Exercises

The box in the bottom left corner of each diagram tells you whose move it is. A white box means it is White to move and a black box means it is Black to move.



Column for  
White's moves

Column for  
Black's moves

Answer:

1. \_\_\_\_\_

2. \_\_\_\_\_

EXAMPLE: Provide an answer which shows the point of the tactic. Use all lines provided.

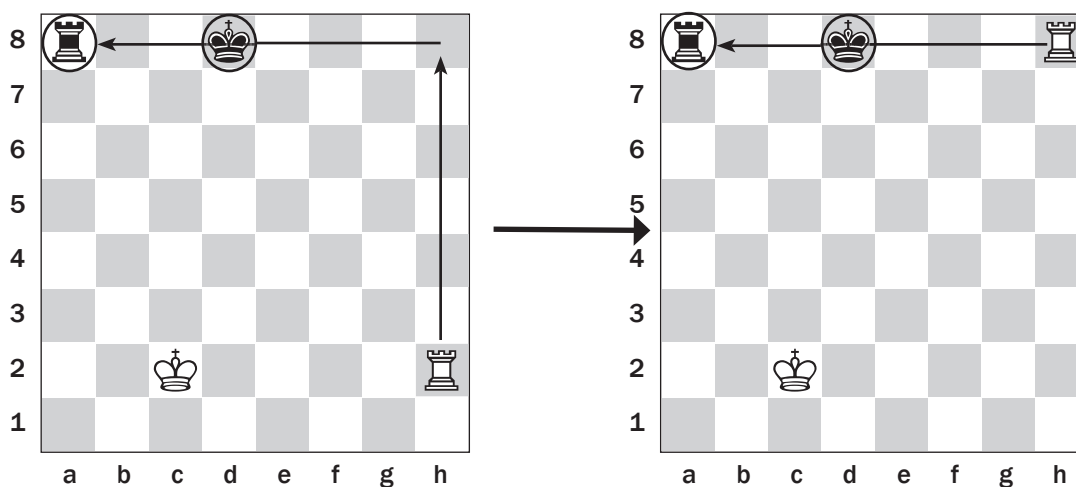
Where hints are placed in  
guided practice sections.

Be sure to provide a complete answer by using all of the designated lines. This means in cases where there is more than one line, you must write down the move you would like to play and what move you believe the opposing side would play. I have provided the number of lines I believe is necessary to display the understanding of each puzzle.

## CHAPTER 7

# Skewer

A skewer occurs when a linear moving piece (queen, rook, or bishop) attacks an enemy piece and if that piece moves away there would be an attack on a less valuable piece beyond it. Sometimes a skewer is referred to as a ‘reverse pin’ since a pin occurs when a piece of less value is attacked, and if it moves, a piece of greater value would be in danger. A skewer is the opposite; the more valuable piece is the one first attacked.



Notice that the black king and rook are aligned on the 8th rank. White could move the rook to h8, skewering the king and rook.

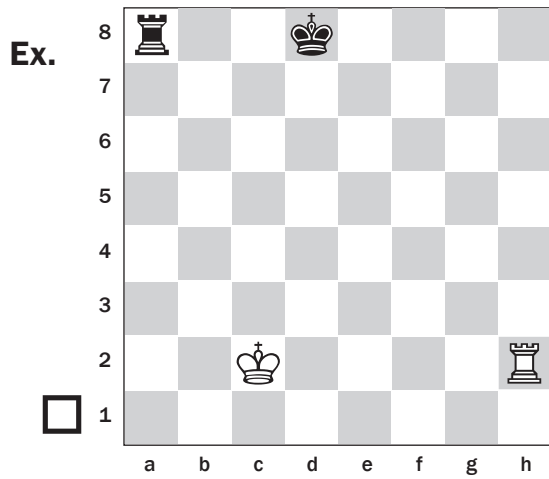
The best move for White is **1.Rh8+** (see diagram 2).

The king (the most valuable piece) is attacked first. The king has to dodge the attack but then the rook on a8 is lost.

**1...Kc7 2.Rxa8**

In order to solve the problems in this chapter, look for enemy pieces aligned on the same file, rank or diagonal.

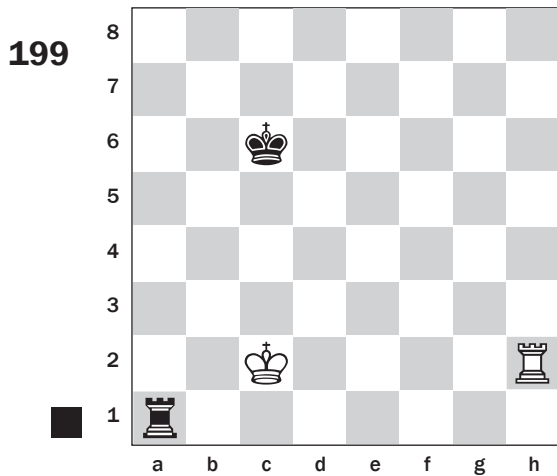
# Skewer – Guided Practice



Answer:

1. Rh8

EXAMPLE: Provide an answer which shows the point of the tactic. Use all lines provided.

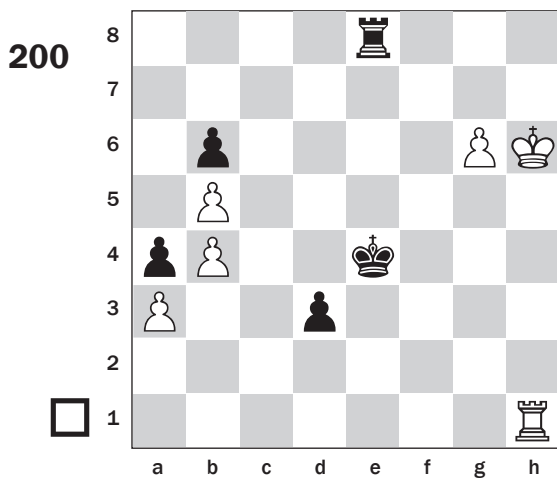


Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

**HINT**

Notice that the king and rook are on the same rank. Use a rook skewer to win material.



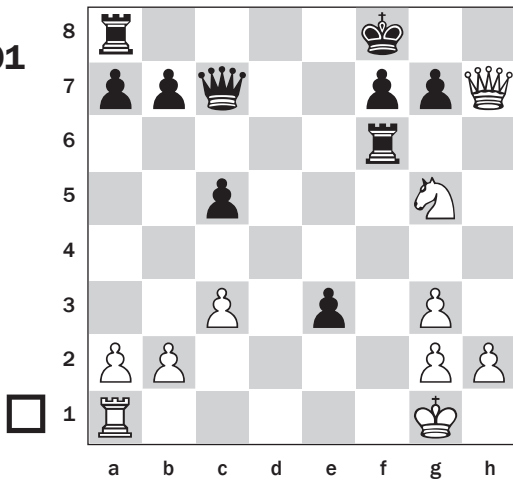
Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

**HINT**

Notice that White's king and rook are on the same file. Use a rook skewer to win material.

201



Answer:

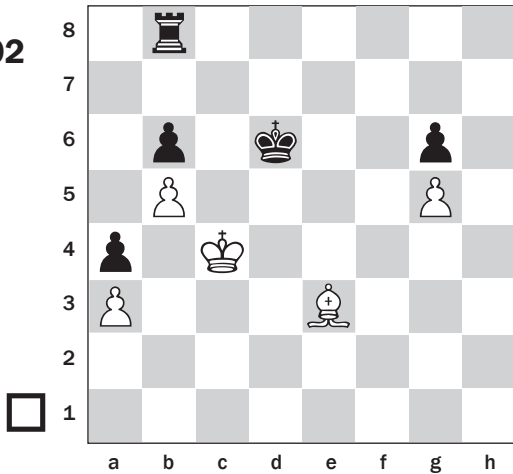
1. \_\_\_\_\_

2. \_\_\_\_\_

**HINT**

The king and rook are both on the 8th rank. Use a queen skewer to win material.

202



Answer:

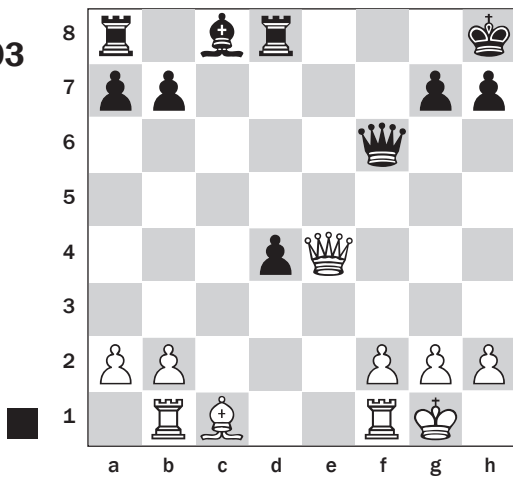
1. \_\_\_\_\_

2. \_\_\_\_\_

**HINT**

Notice that the king and rook are on the same diagonal. Use a bishop skewer to win the rook.

203



Answer:

1. \_\_\_\_\_

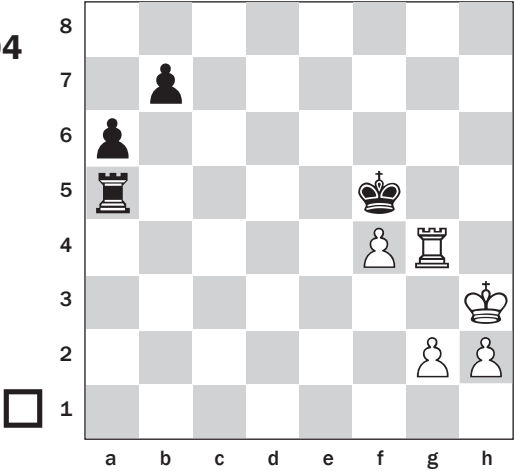
2. \_\_\_\_\_

**HINT**

Notice that the queen and the rook are on the same diagonal. Use a bishop skewer to win the rook.

# Skewer – Test

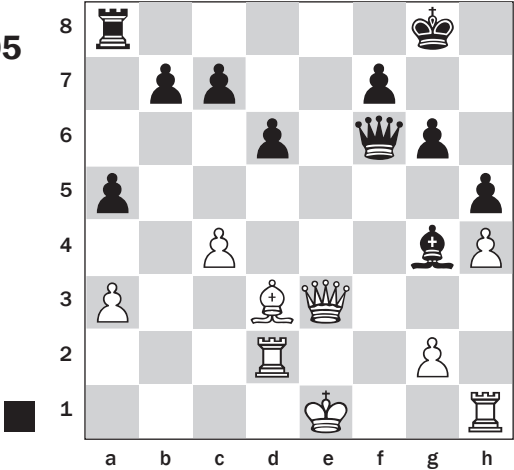
204



Answer:

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

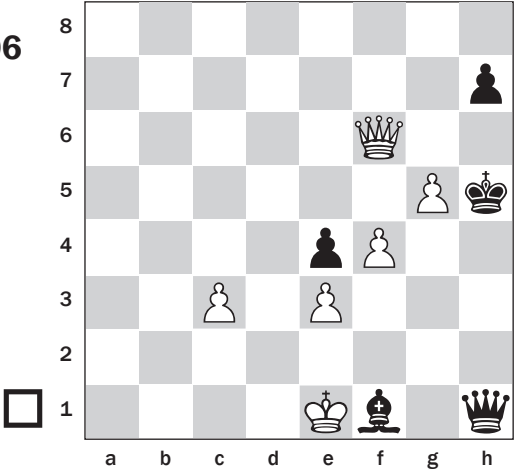
205



Answer:

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

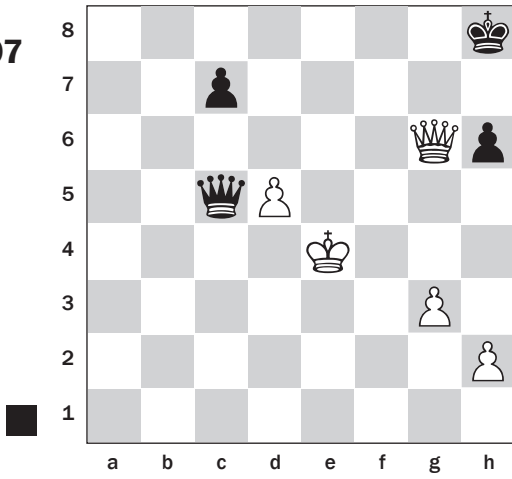
206



Answer:

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

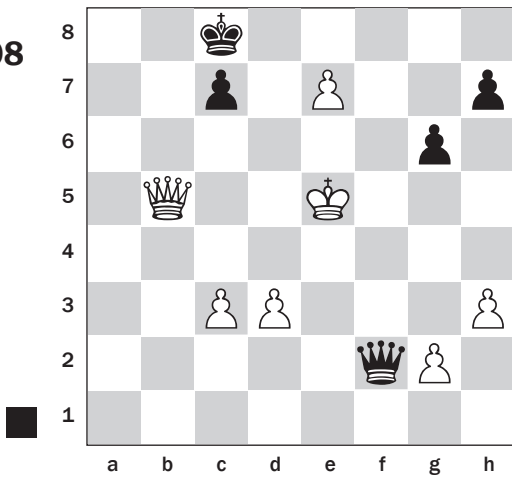
207



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

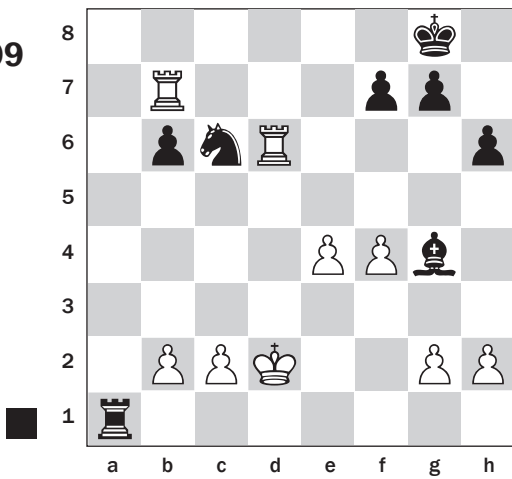
208



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

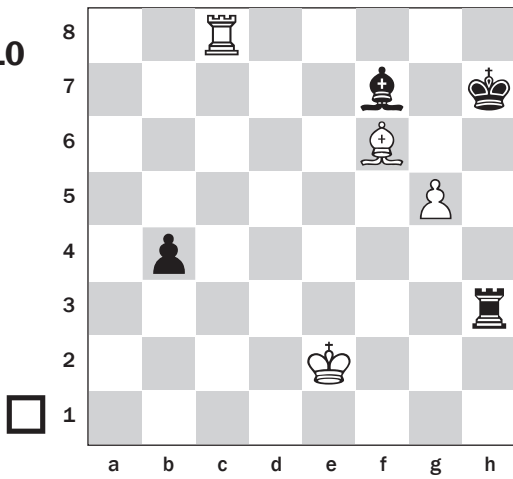
209



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

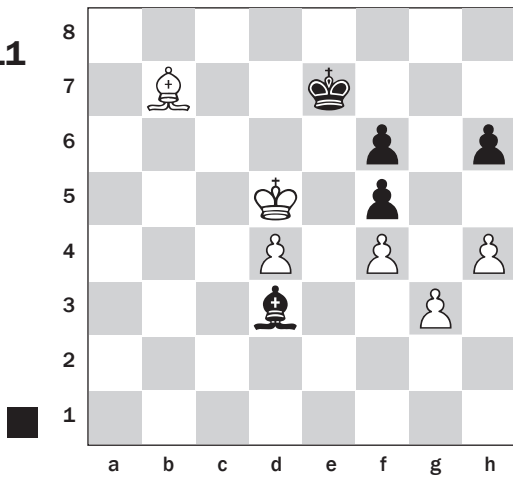
210



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

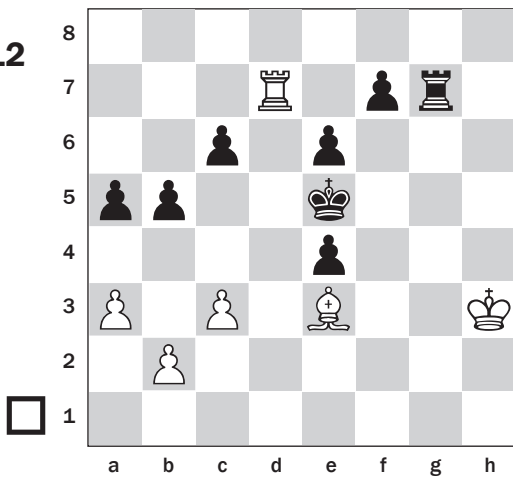
211



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

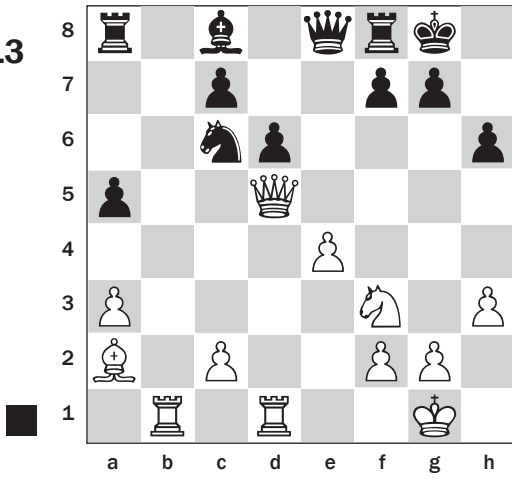
212



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

213

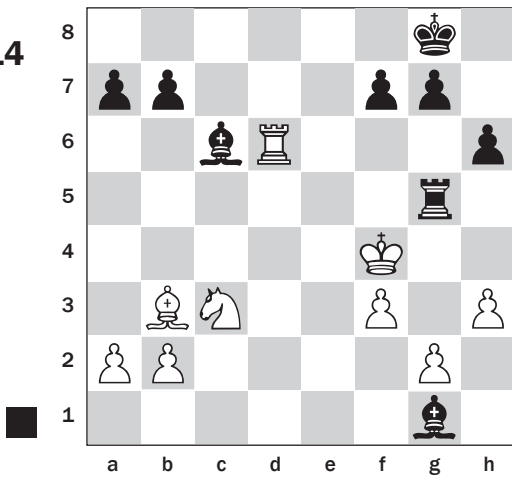


Answer:

1. \_\_\_\_\_

2. \_\_\_\_\_

214

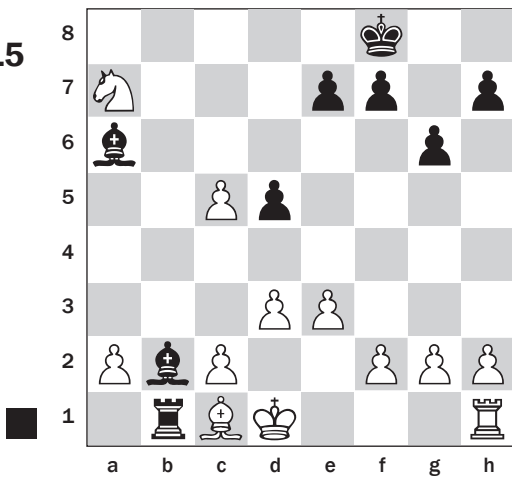


Answer:

1. \_\_\_\_\_

2. \_\_\_\_\_

215



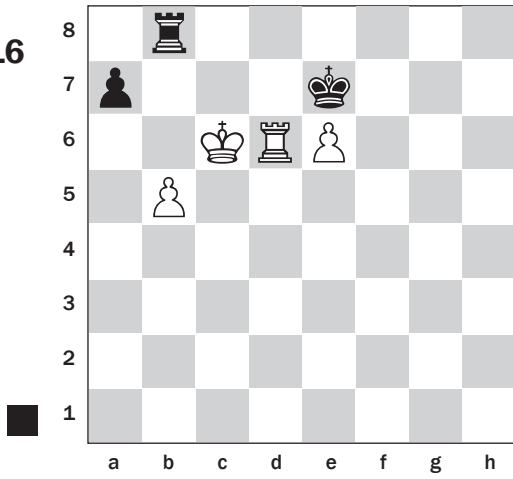
Answer:

1. \_\_\_\_\_

2. \_\_\_\_\_



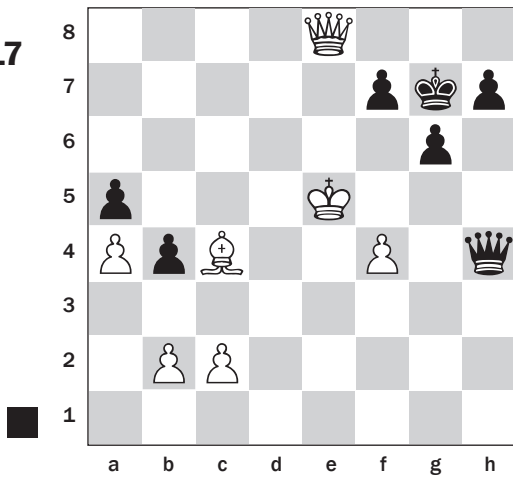
216



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

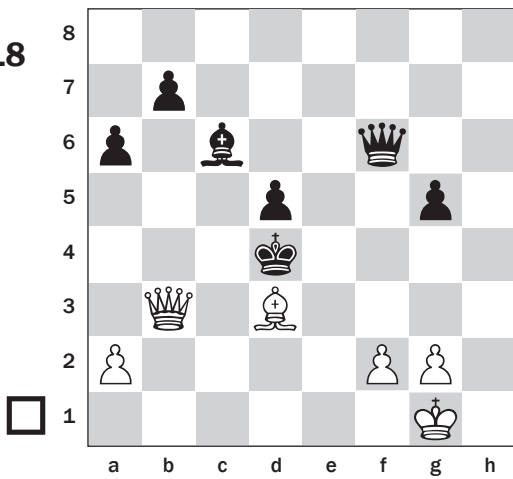
217



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_

218



Answer:

1. \_\_\_\_\_
2. \_\_\_\_\_