

# Table of Contents

Foreword by <i>Dr. John Hattie, University of Melbourne</i>	5
Note to Students, Teachers, and Parents	9
Introduction	11
Watching Children Learn	15
Chapter 1: The Pieces and How They Move	27
Chapter 2: Checkmate or Stalemate	78
Chapter 3: Pins and Skewers	88
Chapter 4: Knight Moves and Back-rank Problems	106
Chapter 5: Deflections and Promotions	123
Chapter 6: Games to Learn From	140
Chapter 7: Endgame Tactics and Smashing the Kingside	166
Chapter 8: Evaluation, Basic Endgames, and Stems	201
Chapter 9: The Active King	225
Chapter 10: Some Ideas from Grandmaster Games	236
Chapter 11: Practice Thinking	262
Glossary	492

# Introduction

This is a book for smart students. You might ask, “What makes me smart?” Smart is developing a consistent practice schedule. Smart is not quitting when things get hard or when losses hurt. Smart is learning from your mistakes and listening to people who give good advice.

Some people think “smart” is about how your brain functions or how quickly neurons fire. I’ll be honest, that is part of it. There are plenty of people who have brains that can perform very complicated tasks effortlessly, but who have no chance at becoming great chessplayers. For whatever reason, they don’t put in the work, and they don’t persevere through hard times.

Smart is made up of many different things. My students once told me, “Mr. Cripe, your Spanish is terrible... but your dancing is worse.” Part of being smart is to know what you are not good at. 😊

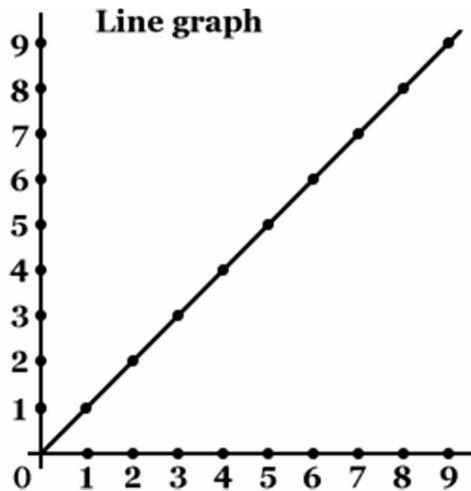
This book is put together differently from most books, and that’s because I have witnessed many children who knew nothing about chess learning the foundations of the game fairly quickly.

Now, you will not become a great chessplayer overnight. Great chessplayers have to memorize many problems. They have to see things instantaneously and know what to do. Some of the learning can be fun, but some of it is just plain work.

This book has plenty of chess problems. Most chess books have problems in them. This one is premised on the idea that a child can learn and process new information quicker than adults. So, concepts are grouped with other concepts.

Children’s brains learn information a little differently from those of adults. Here is a model of how to learn something:

## The Learning Spiral



If, one at a time, you learn knight forks and then pins and then one-move checkmates, you will get better at chess. If you stay with it, you may be successful. I have no argument with that. As I have watched children learn, though, this is what I observe:



*The Learning Spiral*

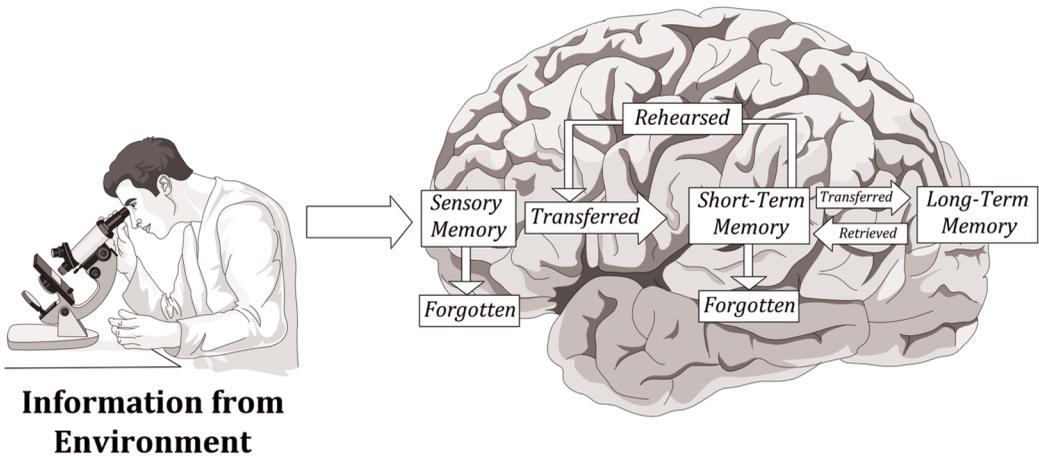
It is what is known as a three-dimensional Fibonacci sequence: you start with simple and easy information at first, and it should get more complex and diverse as learning occurs. That is the very definition of rigor.

Let me give an example of this idea. Several years ago, I taught my fourth-graders how to perform double-digit multiplication in their heads (no pencils and no paper). It was a struggle at first, but by the end of the second day, 70% of the class had mastered the idea. They had fun doing it.

# Introduction

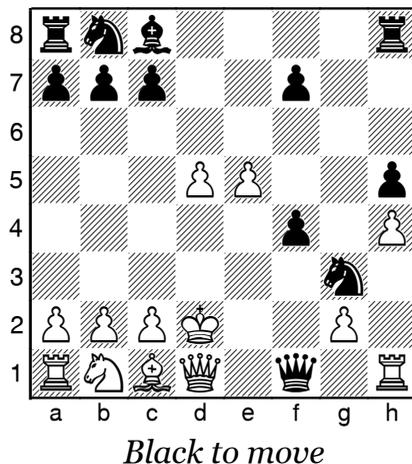
I choose to teach children in a way that acknowledges their natural curiosity and interest in puzzles and challenges. Each chapter of this book is deliberately designed to have very simple problems to moderately difficult problems of varying themes in it. In most chapters, there will be a problem or two that is completely unrelated but not too difficult.

Really bright people can disagree as to what learning is or how it happens. I like this diagram:



What is happening? We get information in from our senses. It can get to short-term memory and, with practice, it gets stored in long-term memory. Imagine that we look at a chess problem and solve it. Is that information in long-term memory?

Here is a test. Can you say the answer quickly and explain it to someone else?



## The Learning Spiral

Imagine that this is the problem. I can define learning this way. I present a lesson on one-move checkmates where this is the fourth problem in a set of 20. Students practice and can say all the answers to the problems in under a minute. Do they “know” it?

First, they have two big cues: they know that the set is one-move checkmates, and they know that this is the fourth problem.

Both of those cues make it easier to memorize and will make it less usable in a real game.

But what if that problem is within a set of 20 randomly ordered cards? Some are one-move checkmates, some are pins, and a couple others involve new ideas. The student who can know the answers to those questions, no matter how they are randomized, has a much better chance of finding that idea in a game because a game of chess is a sort of random variety of tactics and ideas that can arise. What does the thinking process look like when the concepts are randomly placed?



The way you learn complex information is the way you will process that information.

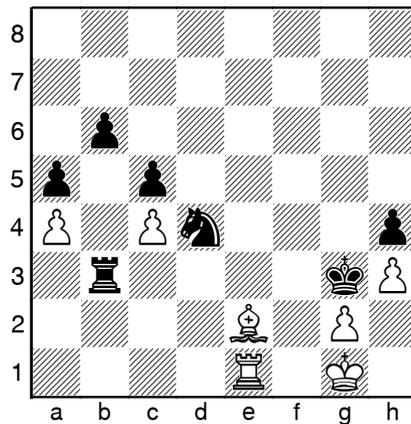
Paz y esperanza,  
Kevin Cripe

# Chapter 4

## Knight Moves and Back-Rank Problems

When beginners play chess, they can miss very simple ideas, like giving up a piece for free and missing a one-move checkmate. Tactics often occur in combination with other ideas. Here is a simple problem. Black to move:

### Knight fork/back rank 1



Someone starting out at chess might think, “1...Nxe2+ then 2.Rxe2” and it’s even. That’s not quite true. The knight can take the bishop for free because White cannot take back. His back rank would not be guarded and if White played 2.Rxe2, then 2...Rb1+ would follow and after 3.Re1 Black could play 3...Rxe1#.

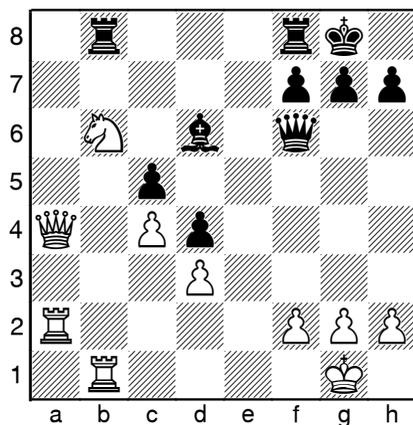
So simple ideas like Black’s king being strongly placed and Black’s rook being much more aggressively placed are important to understanding what tactics might be involved in the position.

There is an important cognitive problem with giving children a set of problems arranged by theme and where every problem “works.” It goes like this:

I teach knight forks and we do 5 to 10 problems related to knight forks. In every problem there is a successful knight fork. Then they play a game and get to a position like the following.

# Knight Moves and Back-Rank Problems

## Knight fork/back rank 2

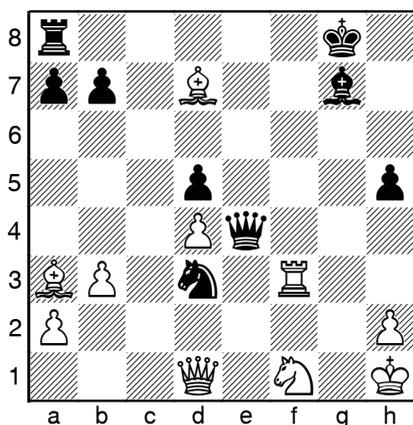


White to move. 1.Nd7 (knight fork)? Yes, it is a knight fork, but it loses at once to 1...Rxb1+.

When tactics are taught in isolation and when every problem is a success, you are giving a student a false sense of what happens in a game of chess.

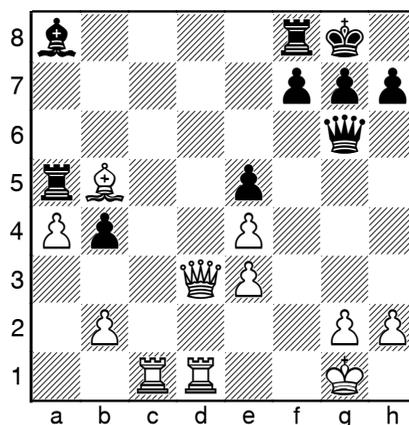
In this book, each chapter about tactics will have at least two ideas and some problems where the idea doesn't work. That's how chess works in the real world.

### Diagram 57



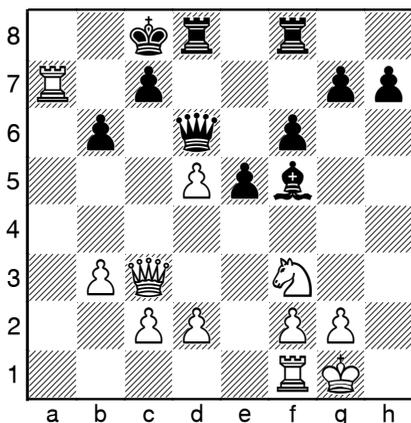
What is Black's best move?

### Diagram 58



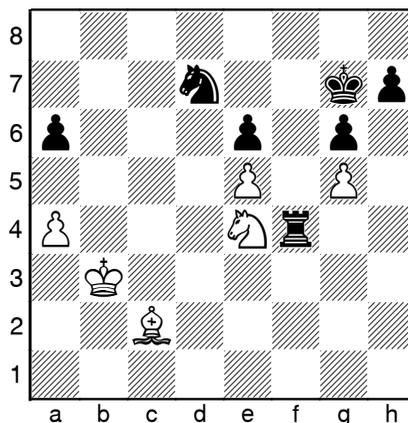
What is White's best move?

Diagram 59



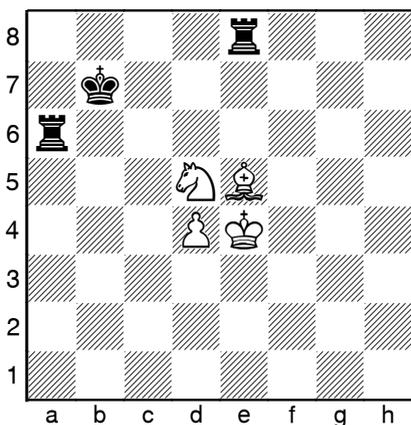
Is 1.Qc6 a good move for White?

Diagram 60



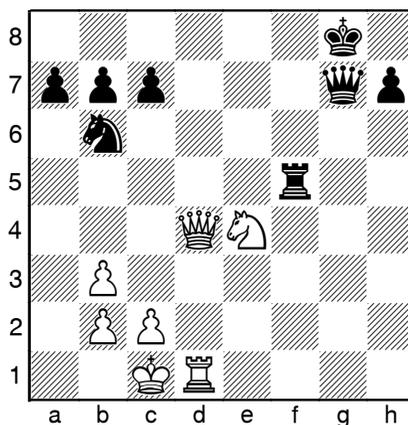
Is 1...Rxe4 a good move for Black?

Diagram 61



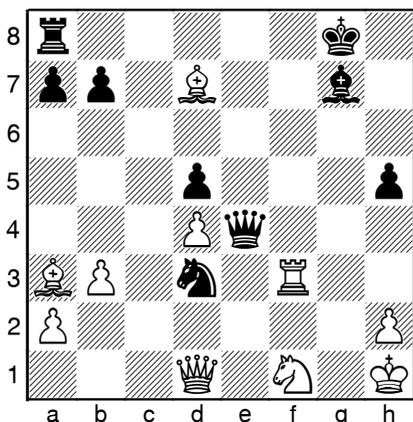
Is 1.Nc7 a good move for White? Is 1.Rg1 a good move for White?

Diagram 62



## Answers

### Diagram 57

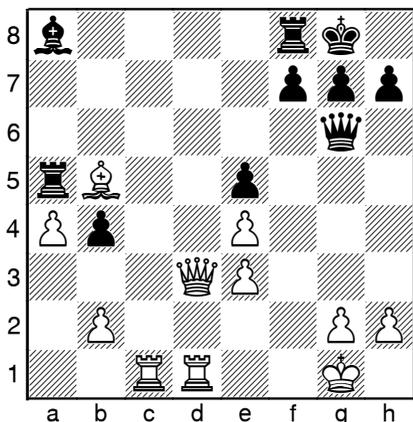


What is Black's best move?

Here is an example of tactics working together. Look at Black's queen and White's king. See White's rook in between? It is pinned and it cannot move. How does that help?

Think about 1...Nf2+. The rook cannot take it, and after the king moves Black will play 2...Nxd1 (knight fork).

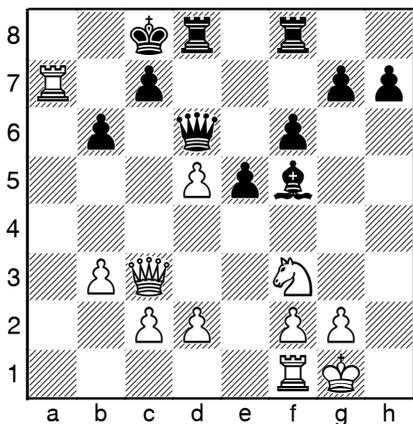
### Diagram 58



What is White's best move?

This one is hard. The key is in how well White's pieces can work together. Think about 1.Qd8!. If 1...Rxd8, then 2.Rxd8#. What else does 1.Qd8 do? The queen attacks the unprotected rook on a5. What if Black moves 1...Ra7? White replies 2.Rc8! and it's hopeless. Black had problems on the back rank.

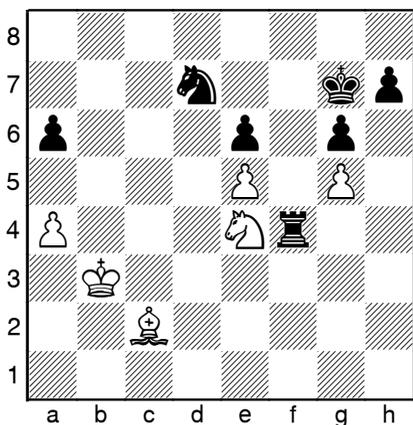
Diagram 59



Many beginners won't like playing 1.Qc6 because Black can trade queens. Imagine the board after 1.Qc6 Qxc6 2.dxc6. What are White's threats? 3.Ra8 is check-mate. What can Black do? 2...Kb8 is the only move. Then White moves 3.Rfa1 and it's unstoppable checkmate.

Is 1.Qc6 a good move for White?

Diagram 60

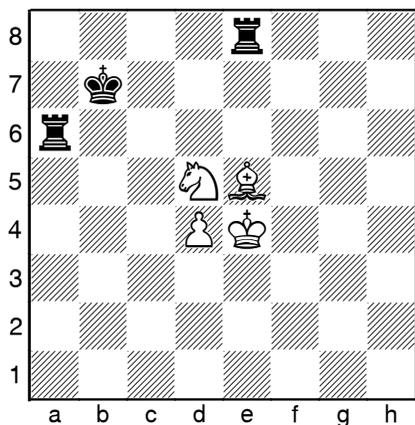


If we are thinking only one move ahead, then 1...Rxe4 looks bad: 1...Rxe4 and then 2.Bxe4. Take time and think, "What could happen after that?" 1...Rxe4 then 2.Bxe4 and now 2...Nc5+ (knight fork). Black will be a full knight ahead and should win easily. (Hint: stop White's a-pawn from queening.)

Is 1...Rxe4 a good move?

## Knight Moves and Back-Rank Problems

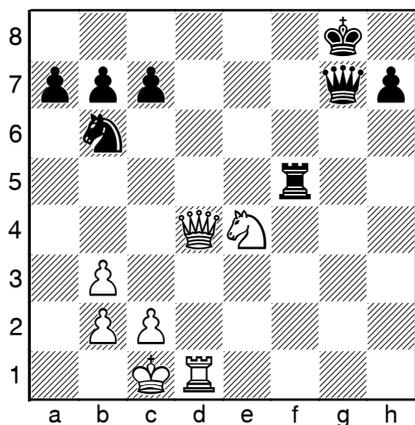
### Diagram 61



Before White moves 1.Nc7, he/she should think, “What will my opponent do?” Black has 5 king moves and 24 rook moves. There is one really good rook move, 1...Rxe5+. Either the pawn or the king can take the rook, but then Black plays 2...Kxc7 and Black should win. (Hint: stop the pawn from queening.)

Is 1.Nc7 a good move for White?

### Diagram 62



Before White plays 1.Rg1 he/she should think, “What will my opponent do?” 1.Rg1 seems to pin Black’s queen to the king. Does it?

*No!!* Black can play 1...Rf1+ and if White plays 2.Rxf1, then Black captures 2...Qxd4. Or if the king moves (2.Kd2) then 2...Rxd1 wins a whole rook.

Is 1.Rg1 a good move for White?