Contents

Introduction

This is the third and final volume of a series of workbooks accompanying my 2021 book *How to Study Chess on Your Own*. As the title suggests, self-training in chess is not as straightforward as one might think, especially if you don't have a dedicated coach or a mentor to guide your efforts. I understand the challenges chess improvers face at different levels. Therefore, I decided to provide advice, study schedules, and fresh, unconventional exercises in these books to aid the reader with their chess studies. The first two workbook volumes were aimed at club players in the approximate 1500-2100 Elo range combined. This one, however, is specifically tailored for the slightly advanced 2100-2400 Elo group, or what we could call **ambitious tournament players**.

In *How to Study Chess on Your Own*, I used the term 'master-level' to describe this broad and dynamic echelon of chess players. In hindsight, the 'ambitious tournament player' seems a more befitting description because not all players in this group have 'master' strength or understanding. However, most have at least some (and usually a lot of) ambition to prepare and perform well in strong, often international, tournaments. Here is what I wrote about their typical strengths and weaknesses in *How to Study Chess on Your Own*:

Master-level/Ambitious tournament player (2100-2400 Elo)
Typical strengths
- Ability to recognize well-known tactical and positional patterns and apply 'textbook' methods of play
- Playing positionally sound chess overall (paying attention to positional weaknesses, king safety, and piece coordination)
- Ability to find and execute straightforward ideas (e.g. if they need to find a winning combination or a plan to convert the advantage, they will usually manage it)
- Feeling comfortable in familiar opening/middlegame schemes and strategically simple positions
- Solid overall general knowledge

Typical weaknesses
- Lack of strategic depth (short-sighted plans, not proficient with pawn structures and their transformations, simplifying positions to their detriment, not using prophylactic thinking enough, etc.)

• Unconvincing endgame technique
• Rarely finding strong counter-intuitive resources (backward moves, counter-intuitive piece exchanges, atypical tactical ideas, etc.) due to a relatively high reliance on known ideas and patterns
• Missing tactical subtleties and complex combinations
• Having trouble evaluating imbalanced positions correctly

Years of coaching chess players who have played at this level haven't changed my opinion about the list above; if anything, I have become more convinced. Therefore, this workbook's primary goal is to provide a set of exercises that address most of these issues. That is not to say that an ambitious 1900 or 2000-rated player couldn't work with this book – as long as they don't mind the few potentially very challenging exercises at the end of each section, I'd be more than happy if such a player gave this workbook a shot. Likewise, a curious IM or a GM will probably find a fair share of assignments in the book engaging and helpful in their chess training. Whatever your level, I would like to give you a glimpse into the types and schedule of the **160 exercises** you will tackle in this workbook, which include 'find the best move' puzzles, positional understanding tasks, endgame analysis, and more.

Training schedule breakdown

Training module/ Training method	Chapter 2: Visualization Bootcamp (20 exercises)	Chapter 3: Tactics (35 exercises)	Chapter 4: Middlegame (60 exercises)	Chapter 5: Endgame (45 exercises)
Blindfold Chess	Deep Visualization (20 exercises)			
Find the best move		Find a Hidden Tactic (15 exercises)	Find a Mini-plan (30 exercises)	
Deep Analysis		Tactical Analysis (12 exercises)		Endgame Analysis (15 exercises)
Simulation			Middlegame Simulation (30 exercises)	Endgame Simulation (30 exercises)
Playing out		Tactical Training Position (8 exercises)		

If you've delved into my previous works in the *How to Study Chess on Your Own* series, you will have a grasp of training methods like 'Deep Analysis' and 'Simulation'. If not, worry not; I will provide a comprehensive explanation with practical examples in their respective chapters. The

value of these methods lies in the fact that they demand a higher level of **analytical effort** than your typical chess puzzles, aiming to enrich your chess arsenal and make you a better player.

Let's run a quick overview of the book's chapters.

In Chapter 1, we will discuss typical mistakes of ambitious tournament players. I will show how they can keep one from progressing, offer remedies, and explain how exercises in this workbook can help address them.

Chapter 2 features the traditional 'Visualization Bootcamp', a set of blindfold-mode exercises to warm you up for the upcoming training material and check your proficiency with this essential chess skill. I will introduce a new type of exercise I have not used in the previous two volumes: 'Deep Visualization'.

Chapter 3 offers three study activities for your Tactics Training. In addition to solving 'Find a Hidden Tactic' (we will use the abbreviation 'FHT' throughout the text) and 'Tactical Analysis' puzzles, you will have a chance to play out complicated 'Tactical Training Positions' with a training partner or a coach. These exercises allow you to practice your tactical skills in more dynamic and realistic settings, enhancing your ability to spot and execute tactics during a game.

In Chapter 4, we slow down and focus on positional play in the middlegame: planning, maneuvering, exploiting the opponent's weaknesses, etc. 'Find a Mini-plan' (we will use the abbreviation 'FMP' throughout the text) is an excellent way to practice your short-term planning skills, whereas 'Middlegame Simulations' will require you to employ a broader set of middlegame skills in what is probably the most comprehensive self-training method.

Finally, Chapter 5 focuses on an often neglected area of chess improvement: the endgame. The two study activities in this chapter, 'Endgame Analysis' and 'Endgame Simulation', are based on training methods already featured in previous chapters and will help you enhance your endgame skills.

Scoring and grading

Just like in the previous two workbook volumes, I offer a fair and transparent scoring and grading system for your work. To make it easier for you, I've provided a breakdown of the possible scores you can achieve for particular exercise moves (marked in *italics* for your convenience):

One point = 1 point; *Two points* = 2 points, etc.

No credit = 0 points.

Extra credit = you get additional points (one or two) if you find a specific, usually difficult, move or line.

Once you have completed the exercise, you can add up all regular points and any extra credit points you earned and insert this total number in the blank space, such as the one below (the number of points after the '/' denotes the maximum score for the exercise).

Your score = _____/5 points + _____ extra credit points

If you'd like to find out how you did in the whole section or chapter, all you need to do is accumulate the individual scores for each exercise to get the total score for that section. Then, compare it to the Grading scale at the end of the chapter to obtain a grade in the form of an approximate rating performance level. This quantitative analysis aims to give you meaningful feedback about your overall work and to motivate you to improve. I will provide more information about scoring and grading in Chapter 2.

Purpose of this workbook

Getting to a level above 2100 Elo FIDE already shows that you are a successful chess player, better than 90-95% of all who play this game. However, most of us strive for more, and it's only natural to want to improve further after reaching a certain level.

Fortunately, we live in times when resources that help you achieve your chess goals are plentiful. This Workbook is a small but valuable contribution to this aim. The exercises you are about to solve are relatively unique in chess literature. I have used my experience and imagination to create a training schedule that will challenge you in ways different from what you are probably used to. Some of its most important goals are:
  • Emphasis on developing analytical skills
  • Teaching through instructive explanations of examples and solutions
  • Challenging you with complex exercises

The ultimate goal of this workbook is to enhance your practical skills and knowledge in the crucial areas of the game so that you can make that next step in your chess improvement. I would be delighted if this training helped you identify and rectify some common mistakes, or even just increased your awareness of them. Feel free to reach out to me at dkuljasevic@gmail.com with any questions or comments.

Davorin Kuljasevic
Plovdiv, October 2024

A recurring issue or type of mistake	Suggested remedy	Workbook exercise that addresses the issue	The chapter where you can find the corresponding exercise
Inaccurate visualization	Include various types of 'blindfold chess' in your training	Deep Visualization	Chapter 2
Lacking tactical vision	Improve your recognition of tactical triggers	Find a Hidden Tactic	Chapter 3
Failure to overcome the resistance	Force yourself to calculate one move deeper than you usually would	All exercises involving extra credit	Chapters 2, 3, and 5
Missing the opponent's resources	If you see a good move for yourself, try to refute it	Tactical Analysis, Tactical Training Positions, and Endgame Analysis	Chapters 3 and 5
Tunnel vision	Take a color-blind approach to your analysis	Tactical Analysis and Endgame Analysis	Chapters 3 and 5
Emotional calculation	Make a list of candidate moves before you start calculating, and give some attention to all candidate moves	Tactical Analysis, Tactical Training Positions, and Endgame Analysis	Chapters 3 and 5
Hazy calculation	Make a list of candidate moves before you start calculating, and give some attention to all candidate moves	Tactical Analysis, Tactical Training Positions, and Endgame Analysis	Chapters 3 and 5
Recycling tactical ideas	Solve challenging exercises regularly	Find a Hidden Tactic and Tactical Analysis	Chapter 3
Thinking move-to-move instead of using strategic thinking in 'slow' positions	Plan 2-4 moves ahead; use the one-two-punch technique to set up the main strategic idea	Find a Mini-plan	Chapter 4
Lack of schematic thinking	Always look for the best squares for your pieces and pay attention to how they coordinate	Find a Mini-plan and Endgame Simulation	Chapters 4 and 5
Misevaluating a positional transformation	Study well-annotated model games with a color-blind approach	Middlegame Simulation	Chapter 4
Lack of endgame mindset	Learn the proper endgame mindset by studying good endgame examples	Endgame Analysis and Endgame Simulation	Chapter 5
Subpar endgame technique	Study well-annotated model endgames and practice/play out typical endgame positions	Endgame Analysis and Endgame Simulation	Chapter 5

Visualization Bootcamp

Accurate visualization of potential game positions is one of the most fundamental pillars of success in chess. It is the backbone of good calculation and evaluation. Mistakes in this area can be fatal, so working on your visualization skills is essential if you sometimes struggle to envision positions clearly in your mind.

In *How to Study Chess on Your Own* and the two preceding Workbook volumes, I listed 'blindfold chess' techniques (not looking at the chessboard) and study resources to help sharpen one's visualization. To summarize, these are:
• Playing through games from chess books in blindfold mode
• Solving chess puzzles in blindfold mode
• Blindfold analysis
• Playing blindfold chess games
• Static Visualization exercises (see Volumes 1 and 2)
• Dynamic Visualization exercises (see Volume 2)

In this volume, I would like to introduce a new type of blindfold chess exercise called 'Deep Visualization'. This format is a hybrid of Dynamic Visualization exercises, which involve mentally picturing a chess position and its features, and a typical tactical puzzle, which requires you to solve a given position. Your task in the twenty Deep Visualization exercises that follow is to visualize positions before solving them in 'blindfold mode'.

   The inspiration for creating this type of puzzle came from my student FM Mike Ivanov, who shared his struggle of often missing crucial tactical details three or four moves deep. These calculation mistakes usually happened because he couldn't visualize those 'deeper' positions with the same degree of accuracy and confidence as the one right before him. This led to the creation of Deep Visualization exercises, which I believe will resonate with many of you.

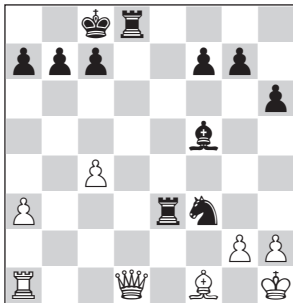Let's start by examining a simple illustrative example.

Deep Visualization – Example 1
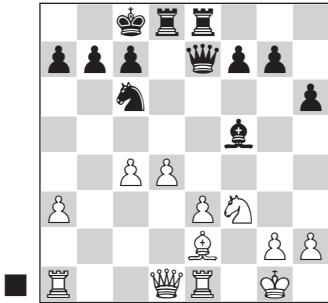
First step: I would like you to visualize the following sequence of moves:

18...♕xe3+ 19.♔h1 ♘xd4 20.♗f1 ♘xf3 21.♖xe3 ♖xe3

Second step: Once you have visualized the moves above accurately, you should see this position in your mind:

It's important to note that the second diagram will not be visible in the Exercises section. Instead, you will only see the first diagram and the move sequence. Your task is to visualize and memorize the final position. This is a crucial step in the exercise,

highlighting the importance of accurate visualization. The second diagram is only included in the two examples of Deep Visualization as an exception to aid in explaining this puzzle format.

Third step: It is White to play in the position on the board. Thinking in blindfold mode, you will be asked to provide the best continuation. The correctness of your solution will depend to a large degree on your visualization accuracy.

It's important to understand that in every Deep Visualization puzzle, your goal is not necessarily to find a winning solution, but to identify the best continuation after the given move sequence. This could be a move that leads to a draw, or one that offers a slight or significant advantage. However, I would like you to **provide a full variation** that you calculated, not just the first move.

In this particular position, the correct solution is:

22.♕a4! ♘d2 23.♕xa7 ♘xf1 24.♖xf1±

You would get *one point* for this solution.

On the other hand, you get *no credit* for 22.♕c1?. This is a mistake due to 22...♘d2! (22...♖e1 23.♕b2 ♖xa1 24.♕xa1∓) 23.♕b2 f6! (23...♘b3? 24.♕f2! ♖e6 25.♖e1∓) 24.♖d1 ♘xf1 25.♖xf1 ♗e4.

The same goes for 22.♕xd8+? *(no credit)* 22...♔xd8 23.gxf3. One solver suggested 23.♖xe3 here, thinking that his rook was still on e1. But the white rook left the board on

move 21 when the opponent's rook on e3 captured it. The solver forgot about this detail, so the position in his mind was inaccurate, and consequently, the solution was not correct. This '**retained image**' mistake shows why visualization training is valuable.

This is the first instance where you can see how to record your exercise score. Assuming you find the correct line above, you will record it as:

Your score = 1/1 point

Alternatively, an incorrect solution gets no points, so you would record it as:

Your score = 0/1 point

If you make visualization mistakes in your chess training, you will likely repeat them in the heat of a chess battle. More visualization work, preferably with increasingly more challenging puzzles, is the 'cure'. Let's examine one such puzzle.

Deep Visualization – Example 2
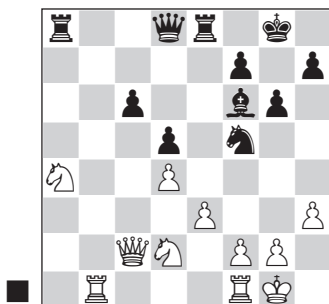
23...♗xd4 24.exd4 ♘xd4 25.♕d1 ♕a5 26.♖a1
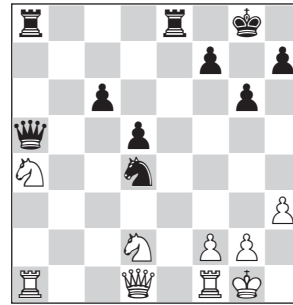
Have you visualized the above diagram correctly? You can look at it once to confirm that it's correct and keep solving the puzzle in blindfold mode. It is Black to play. Please provide the best continuation.

26...♕b4!

One point. You would get no credit for calculating only one or more of the inferior options below:

  A) 26...♕b5 (*no credit*) 27.♘c3 ♖xa1 28.♕xa1 ♕d3 29.♘cb1!+−;

  B) 26...♘e2+ (*no credit*) 27.♔h2+−;

  C) 26...c5 (*no credit*) 27.♘b3 ♘xb3 28.♕xb3+−;

  D) 26...♖e2 (*no credit*) and 26...♖eb8 (*no credit*) are refuted by 27.♘c4!.

27.♖a2!

One point. White is struggling to restore his piece coordination, and this is his best attempt as he prepares ♕a1. You get an additional point for finding this move or its alternative 27.♘b1!? (*one point*), trying to connect the knights on c3: 27...♘e2+ (27...♘b3!? 28.♖a3 ♖eb8 29.♕g4! d4 30.♕g3!= ♖b5? 31.♘ac3!! ♖xa3 32.♘xb5+−) 28.♔h2 d4∓. 27.♘f3? (*no credit*) 27...♘xf3+ 28.gxf3 ♖e5!−+ Navara-S.Hansen, Reykjavik 2015 (0-1, 47).

27...♖e2!

One extra credit point. I am more than happy to reward you with extra points for additional effort. Suppose you were able to visualize this strong move from the starting position. In that case, it shows that a) you already possess strong visualization and calculation skills, and b) you are willing to go the extra mile to find the truth in the position. Both qualities show that you are a promising chess player. 27...♖a5?! (*no extra credit*) 28.♕a1! ♘e2+ 29.♔h1 ♖xa4 30.♖xa4 ♕xd2 31.♖a8!±. The following line is not essential to visualize, but I provide it to show how Black still keeps an edge:

28.♖b2 ♕xa4 29.♖b8+ ♖xb8

29...♔g7? 30.♖xa8 ♕xa8 31.♘b3! ♘xb3 32.♕xe2±.

30.♕xa4 ♖xd2

You could earn more than one point by finding the key ideas in this example. For example, if you found all moves in the sequence 26...♕b4 27.♖a2 ♖e2, your final score would look like this:

Your score = 2/2 points + 1 extra credit

However, to keep your work honest, deduce half a point from your final score if:
• you found the correct first move, but your line differs from the line given in the text significantly;
• you got the right solution but made a significant visualization error in one of the lines;
• your final evaluation differs significantly from the text.

This puzzle was more complex than the previous one. You had to calculate more abstract variations and find more challenging moves to receive full credit. It's definitely easier to find such moves when you have the position right before you than in your mind. And that is precisely the point of such exercises – to build your visualization 'muscles'. In the Exercises section, you will notice that the first few puzzles are easier, but they become more and more challenging as you approach the last five or so. I hope you will find this natural progression helpful.

The ultimate goal of this kind of training is that you don't need the chessboard in front of you to visualize the correct positions. Once you reach a point where you can accurately track most of the changes on the chessboard in your mind, you will no longer need to rely on the physical board that much to calculate variations. Instead of being your weakness, visualization can become a powerful tool. That is something that players with the highest chess titles have mastered to a great degree. If you have ever wondered why some of them look away from their boards while thinking about the position, it is because the static physical board is almost a distraction. The main action happens on the virtual, imagined chessboard. You need to work hard to get to that level, so let's get to it! ☺
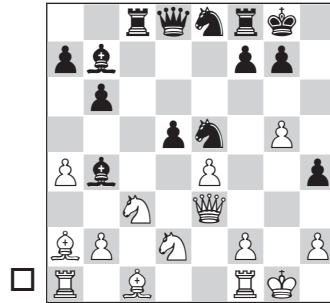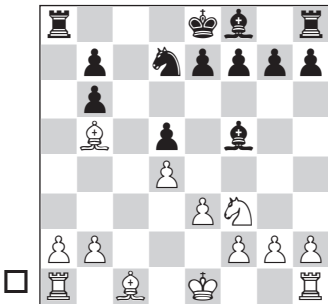
Exercises

Deep Visualization – Exercise 1
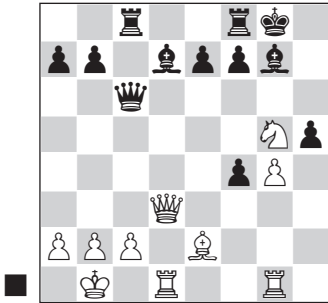
Please visualize the following move sequence:

21...♖fd8 22.♕h7+ ♔f8 23.gxh5 ♕f6

White to play. Please provide the best continuation.
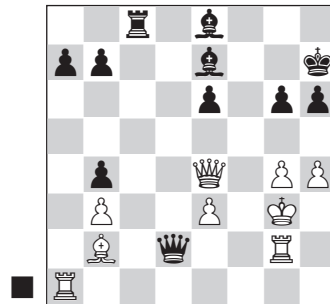
Deep Visualization – Exercise 2

Please visualize the following move sequence:

20.♘xd5 ♖xc1 21.♘xb4 ♖xa1 22.♖xa1

Black to play. Please provide the best continuation.

Deep Visualization – Exercise 3

Please visualize the following move sequence:

12.♘e5 f6 13.e4 dxe4 14.♘c4 ♔f7

White to play. Please provide the best continuation.

Deep Visualization – Exercise 4

Please visualize the following move sequence:

23...♕d6+ 24.♗e5 ♗c6 25.♕f4 ♗xh4+ 26.♔xh4

Black to play. Please provide the best continuation.

Exercises with Solutions

Find a Mini-plan Exercises

FMP – Middlegame fragment 1
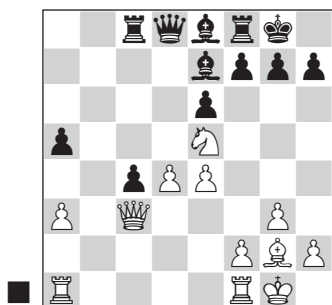
EXERCISE 1: Please suggest a mini-plan to improve Black's position.

22...♗a4!

Two points. This is the most convincing continuation. Placing the bishop on the solid b3-outpost allows Black to support his passed pawn while it blocks the b-file and takes away the d1-square from the white rooks.

  A) 22...♗d6 (*one point*) 23.♘f3 ♗a4! 24.♖fc1 ♗b3 25.♘d2 a4 is a slightly worse version of the main idea;

  B) 22...♗b5 23.♖ab1 ♗a6 (*one point*) is not the best way to support the c-pawn because the bishop is not placed so well on a6 as on b3: 24.♖fc1 with an unclear position;

  C) 22...f6 23.♘f3 ♗g6 (*one point*) is another sound plan, activating the bishop on the other flank. However, after 24.♗h3, Black will have to deal with a weak e6-pawn.

23.♖fc1 ♗b3 24.♗f1 ♗f6

Nice prophylaxis. The c4-pawn is safe because of the pressure on the d4-pawn. Black eventually converted his positional advantage in the game Bosiocic-Kryvoruchko, Germany Bundesliga B 2017/18 (0-1, 42).

Your score = ___/2 points

FMP – Middlegame fragment 2
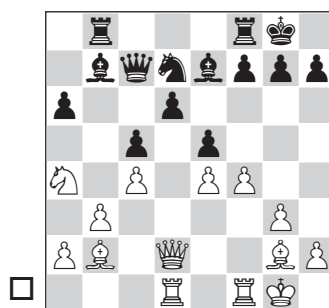
EXERCISE 2: Please suggest a mini-plan to improve White's position.

21.♗c3!

Two points. This elegant bishop maneuver is White's best continuation. The bishop wants to go to a5, from where it controls crucial squares on the a5-d8 diagonal and limits Black's active possibilities on the queenside.

  A) 21.♘c3 (*one point*) is reasonable and natural but less impactful than the game continuation. Black can prepare the queenside expansion (...a5-a4) with 21...♗c6 and after 22.♘d5 ♗xd5 23.♕xd5 he can use

the a5-square as a springboard for counterplay with 23...♕a5. This line shows why 21.♗c3 is a better option;

B) 21.♗h3?! ♗xe4 22.♗xd7 ♕xd7 23.♘xc5?? (*no credit*) is an attempt to finish the game by tactical means, but this idea fails to 23...♕a7;

C) Another forcing option, 21.fxe5?! ♘xe5 22.♗xe5 dxe5 23.♕d7 (*no credit*), also fails to impress after 23...♖bc8.

21...♗c6 22.♗a5 ♕b7 23.♘c3
White recentralized the knight only after taking care of the opponent's queenside counterplay. The remainder of the game Carlsen-Rapport, Wijk aan Zee 2019 (1-0, 40) was a vintage Carlsen performance that you should check out if you are not already familiar with it.

Your score = ___/2 points

FMP – Middlegame fragment 3
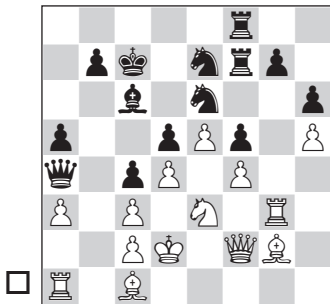
EXERCISE 3: Please suggest a mini-plan to improve White's position.

29.♘d1!
Two points. The purpose of this maneuver is to expel the black queen from a4 so that White can get more space for his other pieces.

29.♖g6!? ♘xg6 30.hxg6 ♖d7 31.♗h3 (*one point*) is an interesting alternative, trying to break through on the other flank. However, things are not so simple after 31...♖dd8! (*one extra credit point*) because taking on f5 immediately with either piece gives Black good counterplay.
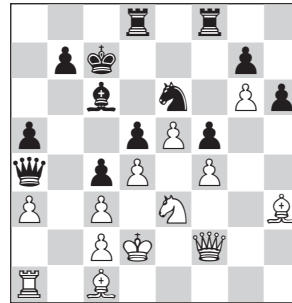
analysis diagram

Instead, White should secure his king first with 32.♔d1! (32.♘xf5?! ♗d7; 32.♗xf5?! ♖xf5! 33.♘xf5 ♖f8) 32...♗e8 33.♗xf5 ♖xf5 34.♘xf5 ♗xg6 35.♘d6. White is better, but this is messier than 29.♘d1. When we have a positional advantage, it's usually better to go for a simple plan instead of a complicated one.
29...g5 30.hxg6 ♖g7 31.♘b2 ♕b5
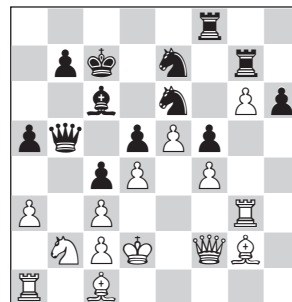
EXERCISE 4: Please suggest a mini-plan to improve White's position.

32.a4 ♕b6 33.♘d1!

One point. The knight returns to the 'crime scene'. This move allows the dark-squared bishop to be developed on the strong diagonal a3-f8, while the knight can return to e3. White has a strategically nearly winning position. For example:
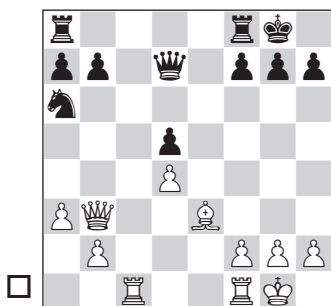
33...♖xg6 34.♘e3 ♖xg3

34...♘xd4 can be ignored: 35.♖xg6 ♘xg6 36.♗a3! and Black loses material after 36...♖d8 37.♗d6+ ♔c8 38.♘d1.

**35.♕xg3 ♖g8 36.♕h4**

Your score = ___/3 points

FMP – Middlegame fragment 4

EXERCISE 5: Please suggest a mini-plan to improve White's position.

20.♗f4!

One point. It's best to isolate the knight on the rim. Now, he cannot bring it back into the game via b8 and c6 due to the ♖c7 threat. Other moves, like 20.♖c3 ♘b8! 21.♖c5 ♖d8 22.♗g5 f6 and 20.♖fe1 ♖ac8 21.♗f4 ♘b8, allow Black to achieve just that, so they receive no credit.
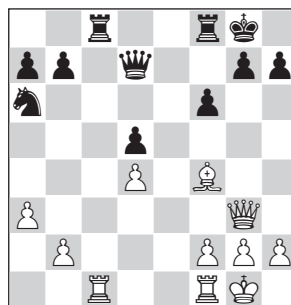
20...♖ac8
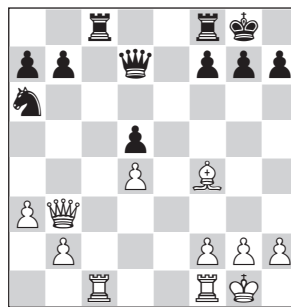
EXERCISE 6: Please suggest a mini-plan to improve White's position.

21.♕g3!

One point. White continues the 'isolation' strategy, keeping the black knight out of the game. At the same time, the white queen sets its sights on the black king. 21.♖fe1 or some other non-committal move again allows 21...♘b8.

21...f6

21...♘b8 fails to 22.♖xc8! ♕xc8 23.♗h6.

EXERCISE 7: Please suggest a mini-plan to improve White's position.

22.h4!±

Two points. White follows the good old principle of two weaknesses. It's not enough to isolate the black knight; we need to open a new front on the other side of the board to

win the game. The advance of the h-pawn aims to weaken the black king, whose defense will be shaky without a potentially important defensive piece in the black knight. 22.♖fe1 or any other non-committal move (*one point*) doesn't achieve much progress, and Black can keep the status quo even with a move like 22...♔f7. The game Carlsen-Wojtaszek, Krasnaya Polyana rapid 2021, continued:

22...♖xc1

If Black tried to complicate matters with 22...♖c4, White would make a good case for the advance of Harry, the h-pawn, with 23.h5 ♖xd4 24.h6 g6 25.♖fe1, with a strong initiative for the pawn due to the opponent's misplaced knight and weak king.

23.♖xc1 ♖c8 24.♖xc8+ ♕xc8 25.b4 b5 26.h5

And White eventually exploited the 'extra' piece in the endgame (1-0, 48).

Your score = ___/4 points

FMP – Middlegame fragment 5
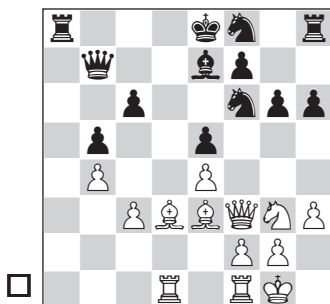
EXERCISE 8: Please suggest a mini-plan to improve White's position.

21.♗c2!

Two points. The bishop was not particularly useful on d3, so rerouting it to the more active a2-f7 diagonal makes sense. From there, it will discourage Black from playing ...♘f8-e6 and put pressure on the vulnerable f7-pawn.

A) Fighting for the open a-file with 21.♖a1!? also gets full credit, but only if you planned to meet 21...♘e6 with 22.♗c2! (*two points*). Otherwise, you get partial credit (*one point*) for this move;

B) 21.c4 (*one point*) has a similar intention of activating the bishop on the a2-g8 diagonal, but Black doesn't have to cooperate: 21...♘e6! (instead, 21...bxc4 22.♗xc4 ♕xb4 23.♖c1 gives White massive compensation for the pawn since Black will struggle to complete his development) 22.cxb5 cxb5 23.♕e2. This position looks great for White, but you can get extra credit for calculating further: 23...0-0! 24.♗xh6 ♖fd8 (*one extra credit point*). Black has completed his development, and White's extra pawn is less significant with ...♘d4/...♘f4 looming;

C) The last mini-plan that deserves attention is 21.♘e2?! ♘e6 22.♕g3 (*no credit*), looking to open the f-file with f2-f4. However, after 22...♕b8, this proves to be a faulty plan because Black can meet 23.f4 with 23...♘h5.
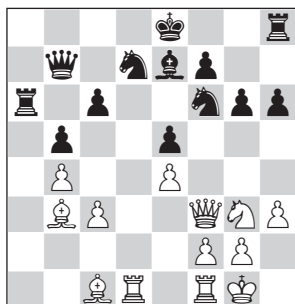
21...♖a3

This move prevents ♗c2-b3 only temporarily.

22.♗c1!

The second backward bishop move in a row. However, we should not be dogmatic about it since bishops are known to be effective long-range pieces.

22...♖a6 23.♗b3 ♘8d7

Black gave up on the ...♘f8-e6 maneuver and moved the knight to the next available square, hoping to castle by hand via f8 and g7. White has just enough time to pose new difficulties before his opponent coordinates his forces. How would you do it?

EXERCISE 9: Please suggest a mini-plan to improve White's position.

24.♕e2!

Two points. This is the most direct way to exploit the vulnerability of the f7-pawn and circumvent Black's plan to bring the king to g7. Black needs to show extreme accuracy to keep his position together after the inevitable f2-f4 break.

Opening the position with 24.c4!? (*two points*) also makes sense. Black will find it difficult to consolidate after 24...bxc4 25.♗xc4 ♖b6 26.♕b3 (or 26.♗d2!?).

White has a few other sensible mini-plans, such as 24.♖d2 0-0 25.♖fd1 (*one point*), taking control over the d-file, and 24.♖fe1 ♔f8 25.♘f1 (*one point*), rerouting the knight to the more active e3-square. However, both plans are relatively slow compared to the first two, so they receive partial credit.

24.h4!? (*one point*) is an interesting attacking idea suggested by my student, Alexandre Lee. Still, Black can keep it at bay with 24...h5 (the point is that castling by hand, 24...♔f8 25.h5 ♔g7, runs into 26.♗xf7! ♔xf7 27.hxg6+ ♔xg6 28.♕f5+ ♔f7 29.f4!) 25.♗g5 c5!.
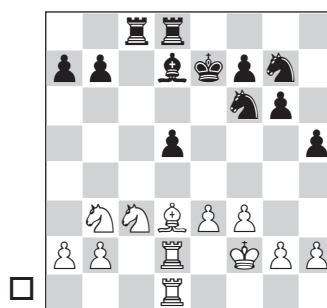
After the text, for example,

24...c5

doesn't work because of

25.c4! cxb4 26.cxb5

and White has a decisive advantage.

Your score = ___/4 points

FMP – Middlegame fragment 6

EXERCISE 10: Please suggest a mini-plan to improve White's position.

24.♗b1!

Two points. White starts a clever regrouping to conquer the isolated d5-pawn.

A) 24.♗c2!? (*two points*) also gets full credit, as long as it is played with the same idea as the text;

B) 24.♘a5!? (*one point*) is an interesting attempt to provoke a weakness in the black position in case of 24...b6. However, Black can play 24...♗c6 instead, and after 25.♗c2 ♘e6 26.♗b3 ♖d7, White might soon find that his knight is somewhat misplaced on a5;

C) 24.♘d4 ♘e6 25.♘ce2 (*one point*) is not the right approach. White doesn't need a blocking knight on d4 since the pawn is sufficiently blocked already. Instead, he should be attacking it. After 25...♘xd4 26.♘xd4 ♖c5, White has no pressure against the 'isolani', and Black has the c-file for counterplay;

D) Finally, 24.a3 ♘ge8! 25.♗b1 (*one point*) is the less accurate move order because Black is in time to obtain counterplay with 25...♘d6 followed by ...♘c4.
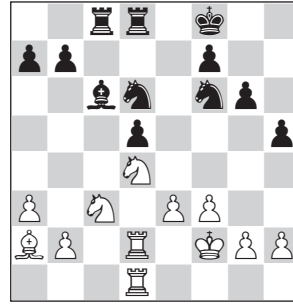
24...♗c6 25.♘d4 ♘ge8 26.a3

We transfer the bishop to the a2-g8 diagonal to put more pressure on the isolated d-pawn and to cover the c4-square.

26...♘d6 27.♗a2 ♔f8

In the game Eljanov-Zubov, Lviv 2014, 27...♘de8 28.h4 ♘c7 followed, and White capitalized on his big positional advantage with 29.e4! (1-0, 66).

We are making a slight detour for the purpose of this exercise.

EXERCISE 11: Please suggest a mini-plan to improve White's position.

28.♘de2!

One point. White transfers the knight to f4, maximizing the pressure against the isolani. The more straightforward attempt 28.♘xc6!? bxc6 29.e4 (*one point*) also deserves attention. However, after 29...♖e8 30.exd5 c5!, converting the extra pawn wouldn't be trivial because of Black's strong blockade on d6.

White has a serious advantage in the endgame. Let me give a sample line:

28...♔e7 29.♘f4!

29.♘xd5+? is a poor choice because it allows the opponent to obtain counterplay with 29...♗xd5 30.♗xd5 ♘xd5 31.♖xd5 ♘c4.

29...♘c4 30.♗xc4 dxc4 31.♖xd8 ♖xd8 32.♖xd8 ♔xd8 33.e4

White will centralize his king via e3 and d4, put a knight on d5, and gradually start advancing his kingside majority. Black is in for a tough defense.

Your score = ___/3 points

FMP – Middlegame fragment 7
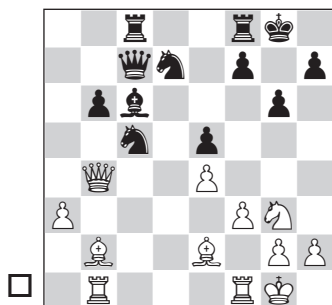
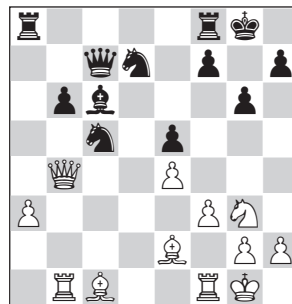EXERCISE 12: Please suggest a mini-plan to improve White's position.

22.♗c1!

Two points. This move leaves the best impression among several promising ways to improve the white position. The bishop was jobless on b2, so transferring it to the more active c1-h6 diagonal makes a lot of sense. Moreover, this maneuver allows the b1-rook to put pressure on the b6-pawn.

A) 22.♘h1!? ♘e6 23.♘f2 (*two points*) is another good mini-plan, improving the knight and planning to go ♘f2-g4-e3-d5 at some point;

B) You also earn full credit for 22.♖fc1!? ♖a8 23.♘f1 (*two points*), transferring the knight to e3 via a different route;

C) However, 22.♖fd1?! (*one point*) is an inaccurate way to achieve this since 22...♗a4! 23.♖d5 (Erdös-Zaragatski, Deizisau 2013 (1-0, 41)), 23...b5! allows Black to achieve queenside counterplay with ...♘b6, ...♘/♗b3.

22...♖a8

FMP – Middlegame fragment 8

EXERCISE 13: Please suggest a mini-plan to improve White's position.

23.♗h6!

Two points. This is the best continuation, highlighting the weaknesses around the black king. 23.♗e3 (*one point*) is not as convincing because of 23...♖a4, followed by ...♖fa8 and counterplay against the a3-pawn. The game could continue:
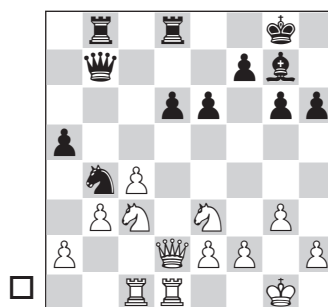### 23...♖a4 24.♕d2 ♖fa8 25.♘f5!
With a dangerous kingside attack vis-à-vis ideas like ♕g5, ♗c4, etc.

Your score = ___/4 points

EXERCISE 14: Please suggest a mini-plan to improve White's position.

25.a4!

Two points. White's best plan at this stage of the game is to secure the powerful b5 outpost for his knight despite weakening the b3-pawn.

A) The immediate 25.♘b5 (*one point*) is slightly inaccurate because it allows Black to break with 25...d5! while the knight's position on b5 is still shaky. You can get extra credit for calculating a forced line of best moves for both sides: 26.a3 ♘c6 27.cxd5 ♕xb5 28.♖xc6 exd5 29.♘xd5 ♕xc6 30.♘e7+ ♔h7 31.♘xc6 ♖xd2 32.♖xd2 ♖xb3 33.♘xa5 ♖xa3 (*one extra credit point*).
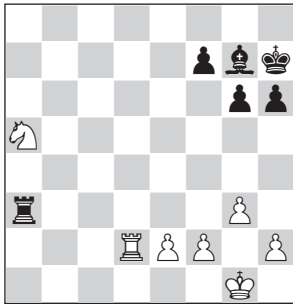

analysis diagram

As a result, we have an endgame where White can still press, but Black obviously has good drawing chances due to the simplifications;

B) The mini-plan of creating a passer on the b-file with 25.a3 ♘c6 26.♖b1 (*one point*) is reasonable, but the downside is that the c-pawn becomes vulnerable after something like 26...♘d4 27.b4 axb4 28.axb4 ♖dc8;

C) The game saw 25.♘a4 (*no credit*), but White made no real progress after 25...♔h7 26.h4 h5! (preparing ...♗h6 in some lines) 27.♘c3 ♖bc8

28.a3 ♘c6 29.♖b1 ♘e5 Halkias-Ivanov, Maia 2023 (½-½, 34).
25...♘a6 26.♘b5 ♘c5 27.♖b1 ♕b6
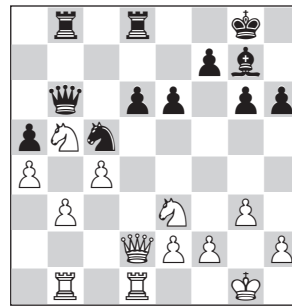
28.♘g2!
Two points. Trading the strong black knight is the key to improving White's position. Therefore, the right mini-plan is to maneuver it to d3 via g2-e1/f4 or 28.♘c2!? (*two points*), followed by ♘e1-d3. 28.♕c2 (*one point*), or any other reasonable move, keeps Black from pushing ...d5 but hardly improves White's position: 28...♖bc8 29.♖bc1 h5.
We don't mind it if Black pushes:
28...d5 29.cxd5 exd5
29...♖xd5 gives us the c4-outpost for the other knight: 30.♕c2 ♖bd8 31.♘e3, with a decisive advantage.
30.♕f4
White enjoys a pleasant positional advantage with an extra pawn to boot. The b5-knight is untouchable, the c5-knight has been weakened, and the black d-pawn remains a long-term target.

Your score = ___/4 points

FMP – Middlegame fragment 9
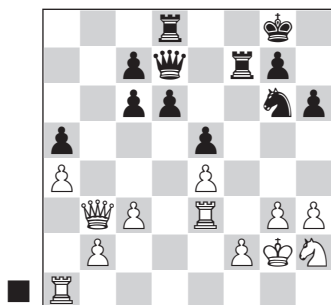
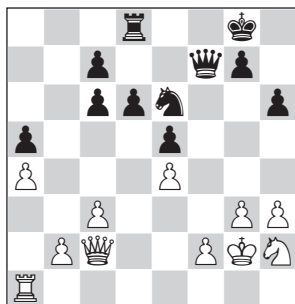## EXERCISE 16: Please suggest a mini-plan to improve Black's position.

21...♞f8!

One point. The knight was misplaced on g6, so it makes sense to redeploy it to the more central outpost on e6. 21...♜df8?! (*no credit*), and virtually any other move apart from 21...♞f8, allows White to trade a pair of rooks favorably with 22.♜f3 ♚h7 23.♛c4 ♜xf3 24.♞xf3. Black's pressure on the f-file has disappeared, which is not good news considering his compromised queenside structure.

22.♜f3 ♞e6! 23.♜xf7 ♛xf7

Not only has Black improved his knight, but he has also picked up a tempo because of the ...♞f4+ threat.

24.♛c2

EXERCISE 17: Please suggest a mini-plan to improve Black's position.

24...♜f8!

Two points. The most precise move, preventing the opponent from activating his knight. The f-file is Black's main source of counterplay, and he should not forget this.

  A) 24...c5 (*one point*) is the most desirable move from a positional point of view, but it allows White to recentralize his knight with 25.♞f1 c4 26.♞e3, and he is just in time to cover his weaknesses after 26...♞c5 27.♛e2! ♞xe4 28.♞xc4;

  B) 24...♜b8 (*one point*) prevents 25.b4. However, there is no need for that. White consolidates with 25.♞f3 c5 26.♞d2 ♜f8 27.♜f1.

25.b4

This principled continuation has its downsides.

Still, the passive 25.h4 c5 isn't very appealing, whereas 25.♞f1?? is impossible due to 25...♛f3+ 26.♚g1 ♞g5.
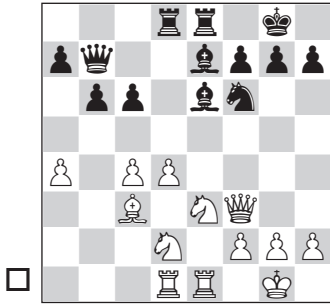
25...axb4 26.cxb4 ♞d4

Black's advantage is indisputable, thanks to the knight on this dominant outpost and the absence of weaknesses.

Meanwhile, White needs to worry about protecting vulnerable pawns on f2, e4, and b4. His a-pawn doesn't pose a big enough threat to compensate for these positional disadvantages.

Your score = ___ /3 points

FMP – Middlegame fragment 10

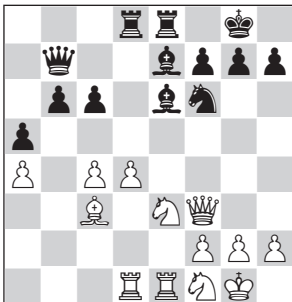EXERCISE 18: Please suggest a mini-plan to improve White's position.

20.♘df1!

Two points. The f5-square is a juicy spot for the white knights, but we need to maneuver the more passive of the pair there first.

A) The immediate 20.♘f5 (*one point*) is much less impactful. Black can simplify matters with 20...♗xf5 21.♕xf5 ♗f8;

B) 20.d5?! (*no credit*) is premature because of 20...cxd5 21.♗xf6 ♗xf6 22.cxd5 ♗d7 23.♘e4 ♗e5. Once the center opens up, the black bishop pair is stronger than the white knights.

20...a5

EXERCISE 19: Please suggest a mini-plan to improve White's position.

21.♗a1!

Two points. A good prophylactic move, avoiding the trade of bishops in case of ...♗b4. 21.♗b2!? is similar and also deserves full credit. 21.d5!? (*two points*) is a more direct alternative. After 21...cxd5, White can continue his plan to invade f5: 22.♘g3!. Black has to bail out with a counter-sacrifice: 22...♕a8 (22...♗b4 no longer works because White has 23.♗xf6! ♗xe1 24.♘h5) 23.♘gf5 d4, but White keeps a pleasant positional advantage after 24.♘xe7+ ♖xe7 25.♖xd4.

White can deal with the 21...♗b4 threat in a couple of other ways, such as 21.♖b1 (*one point*) 21...♕c7 22.♘g3 ♗b4! and 21.♖e2 (*one point*) 21...♕a6!, but Black gets counterplay in both cases.

Lastly, 21.♘g3?! (*no credit*) ignores Black's positional threat, and the position simplifies after 21...♗b4 22.♘ef5 ♗xf5 23.♘xf5 ♖xe1+ 24.♖xe1 ♖e8 as a result.

21...♕c8

21...♗b4 can now be simply met by 22.♖e2.

22.♘g3

White continues with his mini-plan. Black already has to make concessions to alleviate the deadly pressure White would exert if the knight landed on f5. For example:

22...♗g4 23.♘xg4 ♕xg4 24.♕xc6

Your score = ___ /4 points

Endgame Simulation

Endgame Simulations follow the format we saw in Middlegame Simulations.

I hope you will find the following example instructive.

Endgame Simulation – Example
Magnus Carlsen   2863
Fabiano Caruana   2835
Carlsen Invitational INT rapid prel 2020

Our first endgame simulation features a clash between two of the highest-rated players in the world at the time of this writing. In addition, the endgame of the first diagram is quite a thematic one: how realistic are White's winning chances with the bishop pair in an endgame with an open center? Such games usually provide good material for analysis.
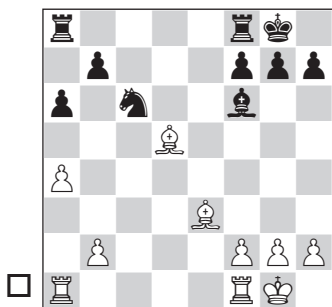
White has a slight, lasting edge in the endgame thanks to his bishop pair. However, converting it to something more requires a lot of skill. How should White start, considering that the b2-pawn is under attack?

EXERCISE 1: Please suggest the best continuation for White.

17.♖fd1!
Two points. Carlsen's extraordinary feeling for the endgame shines through. He knows the b2-pawn is indirectly defended as Black's b7-pawn also hangs, so he wastes no time centralizing his kingside pieces: the rook and the king.

  A) Protecting the pawn with 17.♖ab1 (*one point*) is sensible. However, it's also relatively slow compared to the text. Black can use the extra tempo to mobilize his rooks: 17...♖fd8 18.♖fd1 ♖d7 19.♗e4 ♖ad8 20.♗xd7 ♖xd7±;

  B) 17.♖ad1 (*one point*) is a slightly inferior way of deploying the rooks. They are best on the open c- and d-files, and now the f1-rook feels a bit crowded. Black can utilize this fact to play 17...♖ac8! 18.b3 b5±;

  C) 17.♖ac1?! (*no credit*) was White's choice in the only other game that reached this position, Tan Zhongyi-Lagno, Almaty blitz 2022 (1-0, 57). However, it wasn't good because Black could have forced simplifications with 17...♖fd8! 18.♖fd1 ♗d4! 19.♗xc6 ♗xe3 20.♖xd8+ ♖xd8 21.fxe3 ♖c8! or 18.♗xc6 bxc6 19.b4 ♖db8 20.♗c5 a5! with a drawish endgame in both cases.
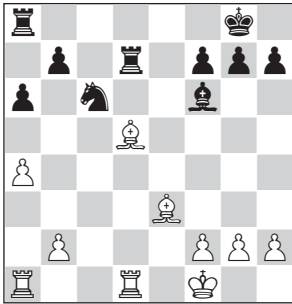
17...♖fd8
If 17...♗xb2? 18.♖ab1 ♗c3 19.♖xb7, White has a decisive advantage.

18.♔f1 ♖d7?
Caruana's plan to double the rooks on the d-file is natural, but 18...♖ac8

was better. Can you find a way to exploit this inaccuracy?

EXERCISE 2: Please suggest the best continuation for White.

19.♗f3?!

One point. Carlsen didn't find it. Such mutual inaccuracies are typical for quicker time controls, even in the games of the world's top players. That is because they have limited time for deep reflection. On the other hand, this means you have an opportunity to find a better move in the simulation than Magnus Carlsen did in the game!

A) This was a perfect time to force a positional transformation with 19.♗xc6! (*two points*) 19...♖xd1+ 20.♖xd1 bxc6 21.b3!.
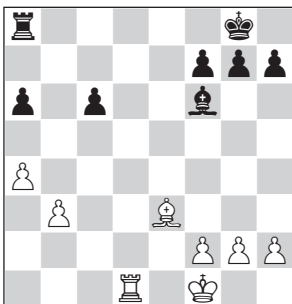
analysis diagram

White utilized the undefended black rook on d7 to unpin his b-pawn. The transition from the bishop pair advantage to an endgame where Black has two isolated pawns on the queenside favors him. Since counterplay with 21...♖b8 fails to 22.♖d6 ♖xb3 23.♖xc6, Black is in for a long and difficult defense after 21...♖d8 22.♖c1! ♖d6 23.♖c4 etc.;

B) As far as the alternatives go, 19.♗e4 (*one point*) is similar to the text. White keeps the bishop pair advantage;

C) Centralizing the king with 19.♔e2 (*no credit*) is superficial. When converting the advantage, the main goal is to limit the opponent's counterplay. This move ignores the opponent's tactical idea: 19...♘d4+! 20.♗xd4 ♖xd5 21.♗xf6 ♖e8+!, which leads to a drawn rook endgame after 22.♔f1 ♖xd1+ 23.♖xd1 gxf6 24.♖d7 ♖e4.

19...♖ad8

Caruana plays another 'natural' but slightly inaccurate move. 19...♖xd1+! 20.♖xd1 ♖d8 was more accurate because now 21.♖c1 can be met by 21...♗xb2 22.♖b1 ♗d4! 23.♖xb7 ♗xe3 24.fxe3 ♘e5 with reasonable drawing chances.

20.♖xd7 ♖xd7 21.♖c1

Carlsen uses the unfavorable position of the rook on d7 to finally bring his rook into the game. As noted on move 19, a positional transformation with 21.♗xc6!? was also possible here, with a stable advantage after 21...bxc6 22.♖c1 ♖d6 23.b3.

21...♖d6

Caruana had no choice but to defend the knight like this. Unfortunately, 21...♗xb2 doesn't work here because of the intermezzo 22.♗xc6! bxc6 23.♖xc6. That is why Black should have kept his rook on d8 on the 19th move. The ♗xc6 intermezzo wouldn't work there.
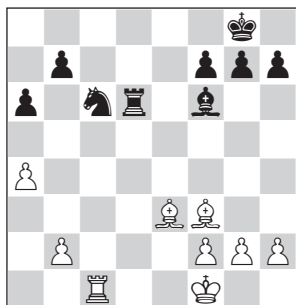
The position has stabilized, and White needs a plan now to exploit his advantages.

EXERCISE 3: Please suggest the best continuation for White.

22.b4

Two points. Carlsen increases the pressure on the queenside, trying to clear the long diagonal for his powerful light-squared bishop.

A) 22.b3!? (*two points*), following the 'do not rush' endgame guideline, was a roughly equivalent alternative: 22...h6 23.♗xc6 (or 23.♖c4!?, preparing to push the b-pawn more methodically) 23...bxc6 (23...♖xc6 24.♖xc6 bxc6 25.♔e2 is winning for White) 24.♖c4 leads to a favorable type of rook endgame we already discussed;

B) In case of 22.♗c5!? (*one point*) 22...♖d2, White would be best off repeating moves with 23.♗e3! ♖d6 (*one point*). 22.♖c2 or 22.♖b1 (*one point*) are a little on the slow side, even if they keep the lion's share of White's advantage;

C) 22.♗xc6? (*no credit*) is mistimed here because White will need to lose a crucial tempo to defend the b-pawn. After 22...♖xc6 23.♖xc6 bxc6 24.b3 ♔f8 25.♔e2 ♔e8 26.♔d3 ♗e7!, Black has good drawing chances in the bishop endgame;

D) 22.♔e2? (*no credit*) allows the opponent to force a liquidation with 22...♗xb2 23.♖b1 ♘d4+!.

22...g5?!

22...h6 or 22...g6 were safer options.
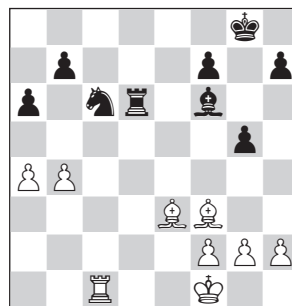
Taking space with pawns is not wrong, in principle. However, this pawn will turn out to be a liability. How can White exploit it?

EXERCISE 4: Please suggest the best continuation for White.

23.♖c5

Two points. This is one way to do it. White wins a crucial tempo to activate his rook. This move would

make little sense if the black pawn were on g6 or g7, clearly showing the downside of Caruana's previous move.

A) 23.♗c5!? (*two points*) was another good option, forcing a favorable trade on c6 after 23...♖d2 (23...♖e6 doesn't make a difference after 24.♗d5 and ♗xc6 next) 24.♗xc6 bxc6 25.♗e3! ♖d6.
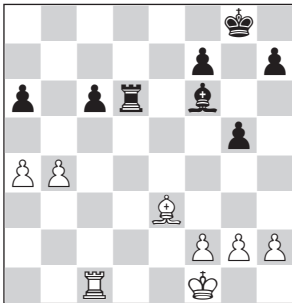
analysis diagram

Here, White wins a pawn thanks to 26.♖c5;

B) 23.♖b1 (*one point*), preparing b4-b5, wouldn't be wrong. However, you'd need to find 23...h6 24.b5 axb5 25.♖xb5 ♘d4 26.♖d5! (*one point*) to prove that White has a winning endgame. Otherwise, Black keeps chances for a successful defense. 26...♖xd5 27.♗xd5 b6 28.f4 etc.;

C) A slower move, like 23.a5 or 23.g3 (*one point*) would give Black a tempo to consolidate with 23...♔g7, though White is still better;

D) Finally, 23.b5?! (*no credit*) is premature due to 23...axb5 24.axb5 ♘d4 and Black gets counterplay.

23...♘xb4

Caruana finally releases the tension. But this favors the side with the

bishop pair. However, even in case of the more restrained 23...h6, White clears the long diagonal with 24.b5 axb5 25.♖xb5 ♘d4 26.♖d5! ♖xd5 27.♗xd5 b6 28.f4. Like the game, Black will find it difficult to defend this endgame because the white bishop pair dominates, allowing him to exploit the pawn weaknesses on both flanks.
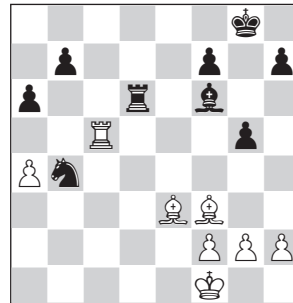
24.♖c8+!

Two points. It's important to remember that even the most 'obvious' moves may have alternatives. In this case, White postpones taking on b7 to insert a check that forces a useful rook trade.

A) 24.♗xb7 (*one point*) would allow the opponent to keep the rook on the board and fish for some counterplay with 24...♖d1+ 25.♔e2 ♖a1 26.♗xg5 ♖a2+ etc.;
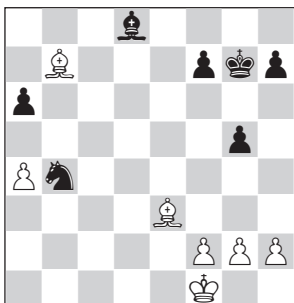
B) Capturing the other pawn, 24.♗xg5? (*no credit*), shows inadequate conversion technique. The problem with this move is that Black can force simplifications with 24...b5! 25.axb5 ♗xg5 26.♖xg5+ ♔f8

with good drawing chances in an endgame with two vs three pawns on the same flank.

24...♖d8

Black's main problem is that 24...♔g7 runs into 25.♗c5, so the rook trade was forced.

25.♖xd8+ ♗xd8 26.♗xb7 ♔g7

The dust has settled, and we can see that White's bishop pair advantage has become even more pronounced. Black cannot create counterplay without the rooks, and his minor pieces are too static. Still, White must show the right plan to convert this sizeable positional advantage.

EXERCISE 6: Please suggest the best continuation for White.

27.♔e2

Two points. Centralizing the king at once makes the most sense. White would like to eventually transfer his king to the queenside to capture the opponent's a-pawn.

  A) 27.♗d4+!? ♔g6 28.♔e2 (*two points*) also works;

  B) The king centralization plan is straightforward enough, so creating the second weakness with 27.g4 (*one*

point) 27...♔f6 28.f4 is not needed at this point;

  C) 27.f4?! (*no credit*), played with a similar idea, might even jeopardize White's win because it allows the opponent to free his knight with 27...gxf4 28.♗xf4 ♘d3!.

27...a5

In case of 27...♔f6, White could use the 'second weakness' on g5 to win a tempo for the king's centralization with 28.♔f3!. The ♔f3-g4-h5 threat looks nasty, so Black should go 28...h5, and then the white king beats the opponent's counterpart with 29.♔e4, asserting its domination in the center. Black couldn't defend his weaknesses on both flanks in the long run.

28.♔d2 f5

Caruana knows that the battle for the queenside is lost, so he is trying to create some counterplay with his kingside pawns.

29.♔c3 ♔f6 30.♔c4 ♗c7 31.h3 g4 32.♔b5 ♔e5 33.hxg4 fxg4
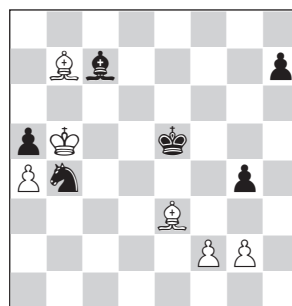
White has made critical progress on the queenside. Can he win already?

**EXERCISE 7: Please suggest the best continuation for White.**

34.♗b6!

One point. The most direct move works, but you will get full credit (two points in total) only for calculating the critical winning ideas after the trade of bishops. 34.g3!? (*one point*) is the other way to win, threatening to win the bishop with 35.♗f4+. You will also be rewarded for calculating the variation deeper: 34...♘d3 (34...♘d5 stops 35.♗b6, but not 35.♗d2) 35.♔c4! ♘b2+ 36.♔b3 (*one point*). The only winning sequence, but quite sufficient: 36...♘d1 37.♗f4+.

34...♔d6

Alternatively, 34...♗xb6 35.♔xb6 ♔d4 (Black could win a pawn with 35...♘d3 36.♔xa5 ♘xf2, but his problem is that there is no way to catch the white a-passer after 37.♔b6 ♘d3 38.a5 ♘b4 39.♔b5) 36.♔xa5 ♔c5, and now you need to have seen 37.♗e4! (*one point*) to make certain that White is winning (37.g3? ♘d3=): 37...h6 38.g3 h5 39.♗g6.

35.♗xc7+ ♔xc7 36.♗e4!
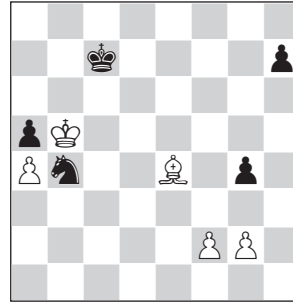
The bishop asserts domination over the black knight, preventing it from organizing any real counterplay.

36...h5 37.♔xa5 ♘a2 38.g3!
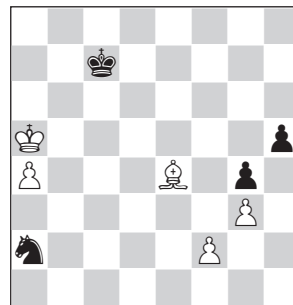
Black has lost the battle on both flanks. His short-legged knight is no match for the powerful bishop.

38...♘c3 39.♗c2 ♘e2 40.♗g6 1-0

Your score = ___/14 points