Lesson 17

The Fundamentals of Positional Chess

Part 1: Positional Chess: Doubled Pawns

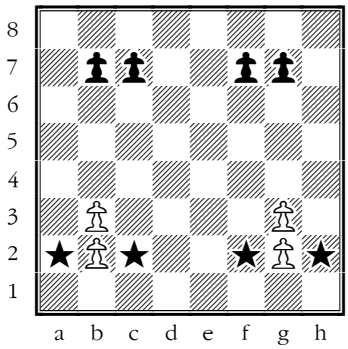
Concepts:

- Introduction and definition of *Positional Chess*!
- What is the difference between “positional” and “tactical” chess?
- What is a “positional weakness”?
- What are “Doubled Pawns” and why are they bad?

“Positional Chess” is, in many ways, the opposite of *“tactical”* chess (see Lessons 9-12). While we use the word “tactics” to describe immediate threats, captures, as well as checkmate and attacking ideas, the term positional chess **is used to describe everything that is long term and permanent about the position or game we are playing.**

A "*positional* player" focuses on building up long-term advantages, targeting his/her opponent's *“positional weaknesses”* and avoiding positional weaknesses in his/her own camp. **A positional weakness is a long-term weak spot in a player's position** such as Doubled Pawns (Part 1), Isolania (Part 2), Backward Pawns (Part 3), or weak squares (Part 3). Every basic positional weakness a beginning player must know will be discussed in Lesson 17.

Doubled Pawns Introduction: What are “Doubled” Pawns in Chess?

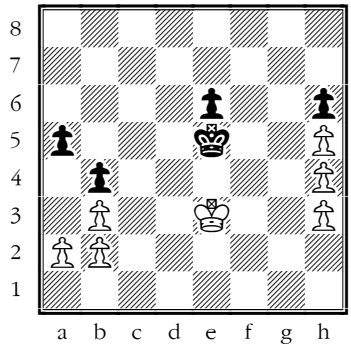


We removed all other pieces from the board to highlight the weakness of having doubled pawns vs an enemy's “healthy” pawn structure...

Doubled pawns are two pawns of the same color which stand one in front of the other on the same file. Since pawns all start off next to each other, each on a different file, the only way for two pawns of the same color to stand together on the same file is by capturing an enemy piece.

Doubled pawns are often considered a weakness since 1) they are easily attacked 2) they cannot protect each other and 3) they cannot move as easily up the board towards promotion, as one pawn is always blocking the other. They are like a big brother and little brother constantly stepping on each other's toes as they walk! **The doubled b and g-pawns were created by a capture** (from either a2 or c2 for the b-pawns, and f2 or h2 for the g-pawns). Black's pawns, on the other hand, can move forward while protecting each other as they advance! If possible, avoid doubled pawns!

Practical Example 1: Why "Twins" and "Triplets" are *Not* Good in Chess Games!

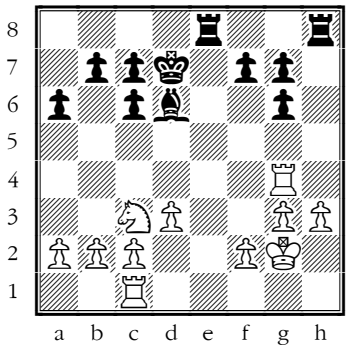


*White's doubled b-pawns and **tripled** h-pawns leave white lost...*

Doubled pawns are commonly referred to as *"twins"*. Though it doesn't happen very often, a player can even have *"triplets"* (see the h-file pawns) or even *"quadruple-pawns"* (which would be four pawns of the same team on one file). **Quadruple-pawns would be very, very ugly!**

This example diagram displays the problem with having "twins" and "triplets" very clearly. Despite the two pawn advantage (and an extra pawn on both the King-side and Queen-side) white is easily lost. Black's passed e-pawn is essentially extra! One example line is: 1...Kd5 2.Kd3 e5 3.Ke3 e4 4.Ke2 Kd4 5.Kd2 e3+ 6.Ke2 Ke4 7.Ke1 Kf3 where black wins the h-file pawns and eventually the game.

Examples 2 and 3: When Doubled Pawns Are "OK"(Example 2):

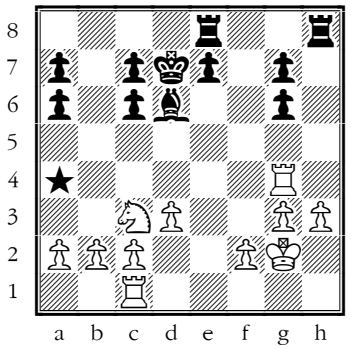


Black's h8-Rook has an active open-file because of the Doubled g-pawns!

Our first of two diagram examples displays a position where the doubled pawns are not only "ok", but perhaps leave black with the more active pieces. Remember, by definition, having doubled pawns means that one pawn captured from another file. This means that there is **always a potential open file** (like the h-file here) for a Rook to occupy.

Here both of black's Rooks control valuable open files and the Bishop on d6 is well placed to attack both sides of the board. Most impotantly, the two sets of doubled pawns (the c7-c6 and g7-g6 duos) are well protected by their "brother pawns" and are hardly weaker than white's pawns. This position is roughly equal with both sides having no targets.

Examples 2 and 3: Doubled "Isolated" Pawns – Doubled Pawns are NOT "OK":

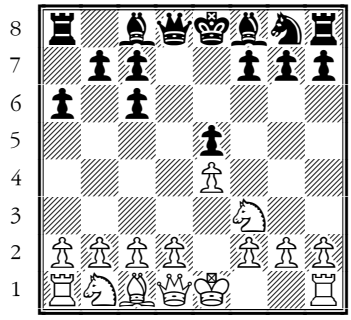


White's Rook currently attack's g6 and could easily slide over to a4!

Compared to our previous diagram, black's b7-pawn has been moved to a7 and the f7-pawn was moved to e7. Suddenly, the entire evaluation of this endgame changes: Black's position is full of problems and is likely lost with best play. The a-pawns, c-pawns and g-pawns are all ***"Isolated"*** doubled pawns and will be hard to defend.

You will find more examples of isolated pawns in Part 2, but the basic point here is that the doubled pawns in the first diagram were not that weak because the b and f pawns defended them. Now, with no "brother pawns" on the adjacent files to protect them, the pawns are doubled, isolated, and therefore very **easy to attack.**

Practical Game Example: The Ruy Lopez (Spanish) – Exchange Variation

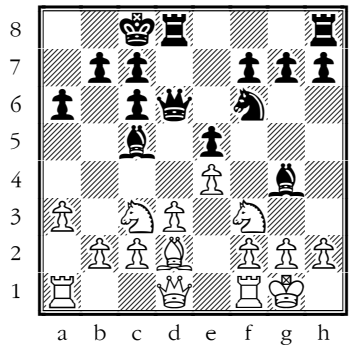


In the "Exchanged Spanish" opening, black has full compensation for the doubled c-pawns...

The current position occurs in tournament practice often: The Ruy Lopez or Spanish Game is one of the most popular openings in the world. The Exchange Variation (the position you see now) appears after 1.e4 e5 2.Nf3 Nc6 3.Bb5 a6 4.Bxc6 (4.Ba4 would lead to the Main Line rather than the Exchange Variation) and finally 4...dxc6.

Though black is now strapped with doubled c-pawns, he is compensated for the weaknesses by having open lines for his two Bishops on c8 and f8, as well as the Queen on d8. Having two Bishops vs your opponent's one can be a critical advantage in ***open*** positions. One example of black's open space can be seen if white tries to capture e5 with 5.Nxe5? Then 5...Qd4! - placing a double attack on the e5-Knight and the e4 pawn. After 6.Nf3 to save the Knight black captures e4 with check and has a favorable game!

Practical Game Example – Continued: The "Nice Part" About Doubled Pawns!



Though white hasn't played the best moves, we see black's natural piece activity fully compensating for the doubled c-pawns!

Here black's open d-file, pin on the f3-Knight, and active Bishop on c5 leave black in a better position with no worries about the doubled c-pawns! This position could have occurred after the continuation of 5.0-0 Bg4 6.Nc3 Bc5 7.d3 Qd6 8.Bd2 Nf6 9.a3 and 9... 0-0-0.

White could have improved on move six (6.h3), but other than that, white's moves were not *unnatural looking* at all,, yet **black clearly possess the better pieces**. This is because white captured early on c6 and didn't look to be more aggressive in the center (5.d4 instead of 5.0-0 is theoretically best). White needed to play more actively to counteract black's open files and diagonals. ***The lesson:*** Doubled pawns themselves are weak, but they can also provide open files and diagonals for yourself or your opponent, so always consider both sides of the story!

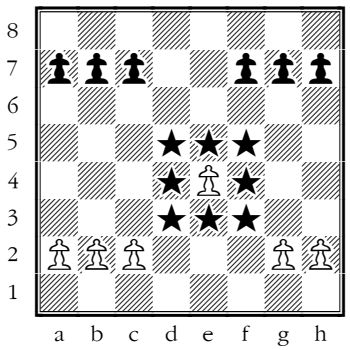
The Fundamentals of Positional Chess

Part 2: Positional Chess: Isolated Pawns

Concepts:

- What is an “Isolated pawn”?
- What is a “Pawn Island” in chess?
- The most common Isolani: The Isolated Queen Pawn (or “IQP”)!
- The advantages of an Isolated pawn, particularly the IQP!

Introducing and Defining the Isolated Pawn and Pawn Islands!

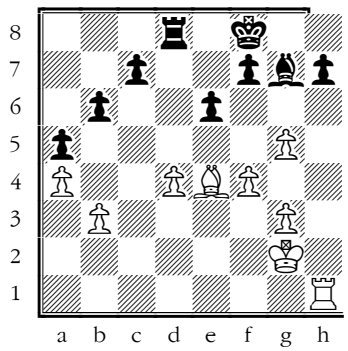


*Having the isolated e4-pawn also leaves the other pawns behind: creating more **islands!***

An isolated pawn occurs in chess when a pawn has no friendly (the same color) pawns on any of the files directly to the left or right of it. In our first diagram, **the e4-pawn stands all alone**, therefore he is isolated. There are no pawns on the adjacent (d or f) files which makes the e4-pawn weak and the target of attack by the opponent.

As it says beneath our example diagram, when a player has an isolated pawn, this usually means the other pawns are slightly weaker as well. Pawn groups are often referred to as *“Pawn Islands”*. The less Pawn Islands you have – the better! This is because when pawns are together, the protect one another. Here white has three Pawn Islands vs two Pawn Islands for black, which is also a weakness.

When the Pawns Can't Defend Each Other – The Pieces “Gang Up” On Them!



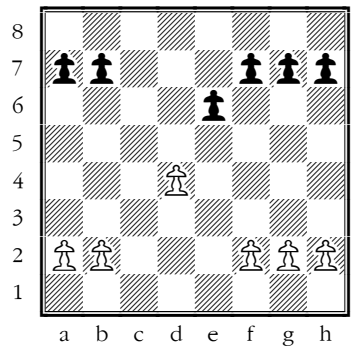
Both white and black will lose their isolated pawns!

Our next example diagram displays one very simple, cold hard fact about isolated pawns: They are “dead in the water” if your pieces can't defend them! Here both white's d4-pawn and black's h7-pawn are isolated, and without ***pieces*** to defend them, it is only a matter of time before the opponent will gather forces and capture these weak pawns.

One key point made in our previous paragraph is that because isolated pawns, by definition, cannot be defended by other pawns, **the pieces have to do it!** Why is that a big deal? Because the pieces are generally busy with more important matters, and don't want to guard the little guys.

Lesson 17

The Isolated "Queen's" Pawn Introduction and What Makes It Different!

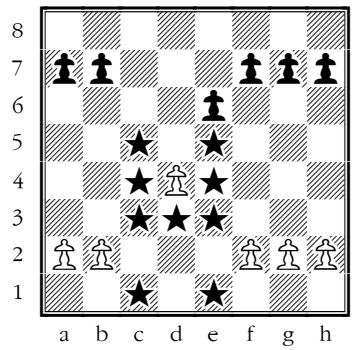


An isolated "Queen's" pawn is always on the d-file for white or black...

An isolated pawn in the middle of the board is ***still*** an isolated pawn. It is still weak, it can still be attacked, and without other play – the pieces will still get stuck defending it! However, because an isolated pawn ***always*** **has open files and diagonals right next to it**, a central pawn can offer active space for both your Rooks and Bishops.

We normally discuss a **centrally** isolated pawn as an Isolated Queen Pawn because most of the time, the Queen's pawn is the one that becomes isolated. This is due to many common Opening variations that naturally lead to this position. So, if the players imagined the pieces being taken off the board – this would be a common "*Pawn Structure"* (see Lesson 18 for more on Pawn Structures).

The Possible Advantages of an IQP and How to Use Them!

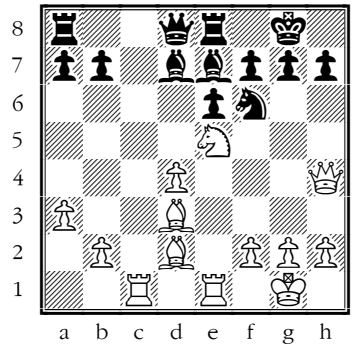


The IQP naturally provides control of the center and open board!

The Isolated Queen Pawn is often referred to as an "IQP" or an "Isolani". Though the naming of this pawn can change, the principles and ideas remain the same:

- The IQP is normally more advanced then the opponent's central pawn. Here we see white's pawn on the 4th rank, with black's pawn only advanced to "black's 3rd rank", aka the 6th rank.
- White usually has good squares for the Rooks on c1 and e1, as well as more space ***around*** the pawn (see all the highlighted squares in our diagram) for pieces such as the Knights and Bishops.
- If white can keep the pieces on the board, **avoid trades**, and **stay active**: *Good things will happen!*

The IQP and All Its Glory: Open Files and Diagonals Lead to Good Tactics!



The IQP can lead to good tactics and an attack!

The bullet points above, in a way, list the plans for the opponent facing an IQP: ***Trade*** the minor pieces; keep your pieces active or at least ***prevent*** **the opponent from getting too active**; attack the pawn and control the squares around it. If black doesn't do that, this is an example of what might happen next:

Every white piece is on a great square! It is hard to find a move for black with white's Queen and Bishops aiming at the Kingside (h7 in particular), and many threats and tactics will start to favor white. 1.Bg5, attacking the **f6-Knight** and next therefore the **h7-pawn** is one example idea for white!

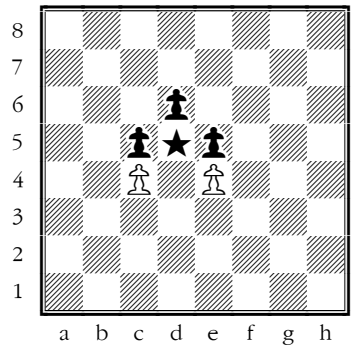
The Fundamentals of Positional Chess

Part 3: Positional Chess: Backward Pawns and "Outpost" Squares

Concepts:

- What is a "Backward Pawn"?
- What is an "Outpost Square"!
- Recognizing and exploiting Backward Pawns and Outpost Squares!

Introducing the Backward Pawn and the Outpost Square!

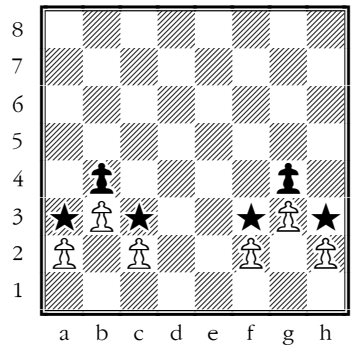


Both the d6-pawn and the d5-square would be targets in a real game!

The third type of positional weakness under discussion in Lesson 17 is the backward pawn. A backward pawn is a pawn that has been left behind by his teammates and is ***"stuck"*** because of the threat of capture from an enemy pawn. The d6-pawn is backward in our first example.

Furthermore, the weakness that almost always accompanies the backward pawn is the ***outpost square***. An outpost square is a square that can never again be defended by a pawn. By definition, the same pawns that left the d6-pawn behind – making it backward – have also left the d5-square behind, thus turning it into an outpost square. Outpost squares are also called *"holes."*

Positional Weaknesses – Extreme: Multiple Backward Pawns and Outposts!

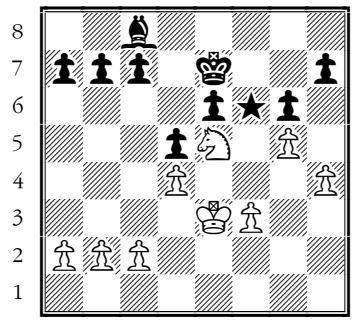


If black had the chance to put a piece on a3, c3, f3 or h3 – that piece would be very happy indeed!

Highlighted in our current diagram is the possibility of having multiple backward pawns and outpost squares. What's amazing about this position is that black's b4 and g4 pawns, without the threat of other white pieces, are essentially **just as good as *all six* of white's pawns!**

Because of *En Passant (Lesson 5 handout)* neither the a or c pawn can advance forward **without being captured!** Obviously moving to a3 or c3 runs into capture the "classical" way, while 1.a4 or 1.c4 run into capture by *En Passant*. The same can be said for white's f and h pawns. The a3, c3, f3 and h3 squares are all also very weak holes for black's personal use! Outpost squares are perfect for attack, and should **usually be filled by a *Knight.***

Outpost Squares and Backward Pawns "In Action": Good Knight vs Bad Bishop!

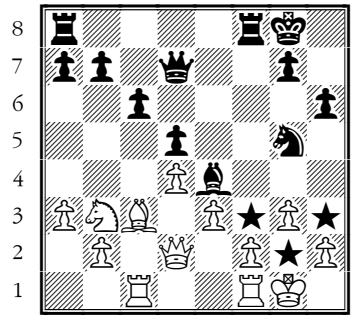


Black defends h7 after the Knight goes to f6!

In our third diagram you no longer have to imagine these weaknesses in positions of just the pawns, as we are now moving onto three practical examples of recognizing and attacking both backward pawns and outpost squares in real games. Here the **Knight on e5** (an outpost square) is dominating the **Bishop on c8**. The h7-pawn is backward.

In a position like this, white would be considered much better and easily winning with best play. After: 1.Ng4! – heading to the other outpost on f6 – then 1...Kf7 ***2.Nf6*** Kg7 3.Kf4! And next to e5, black will have a hard time stopping the Knight and King from commanding the endgame...

Multiple Out-Post Squares: Referred to as a "Weak Square/Color Complex":

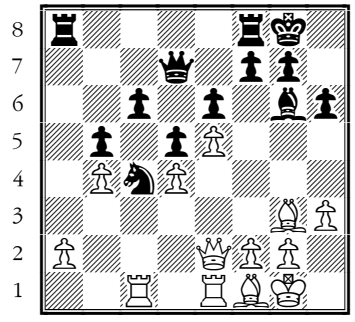


White's pieces on the Queen-side are useless in defending the King!

Moving on from our endgame example, we now see how outpost squares – in this case multiple outposts – can lead to serious issues in the Middlegame. In particular, having unprotected **holes around the King position**, especially when they are all of the same color, can **give the opponent excellent mating attack chances.**

In this position black is threatening both 1...Nh3 checkmate, as well as 1...Nf3+, forking the King and Queen. White is lost. The only move to continue the game would be 1.f3, though after 1...Nxf3+ black wins the Rook on f1 for the Knight, and 1...Rxf3 followed by 1...Nh3+ at some point is also winning easily. The ***weak color complex*** was lethal!

Final Example: Out-posted Knight on C4 and Backward A-Pawn – Black is Better!



The diagrams prove that positional advantages can be used to win material and eventually the game!

In our final example we see black's strong Knight on c4, combined with the open a-file, give black a crushing advantage. The a-pawn is backward and a "sitting duck" for black to clean up after organizing the army.

After 1... Ra6, followed by 2...Rfa8 and if need be, 3...Qa7 – tripling the three most powerful pieces on the a-file – it is only a matter of time before the pawn falls. Note that even if white is to move the Queen to capture the Knight on c4 with the f1-Bishop, black would be left with a protected passed pawn instead of an out-posted Knight. The key thing to notice about ***positional*** advantages is that in all three of our last examples, the material (points) was completely equal. The positional advantages were enough to win!

The Fundamentals of Positional Chess

Instructor's Guide

Chess is 90% tactics, but that is mainly because all games – even those played at the ***highest*** level – are eventually decided by a tactic of some kind. Tactics alone decide the majority of amateur and scholastic chess results; however, if the remaining 10% of chess is positional strategy, it is also true that learning ***positional*** chess concepts is the first step toward chess mastery, and the only way to begin developing high level plans that even the best opponents might not be able to defend against.

As simple as it may sound, because pawns are the only pieces that cannot go back – developing plans of attack that surround the weaknesses discussed Lesson 17 are the only plans of attack that ***cannot*** be prevented. A doubled pawn can not "take back" to its original square. An isolated pawn can't change itself without the help of the opponent. Out-post squares, once created, are generally permanent.

The list goes on! It is good to instill the following principle in your students:

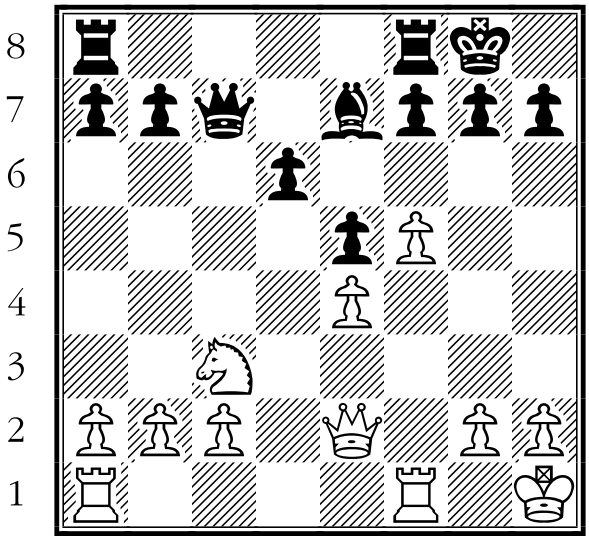
- Develop plans where you **expect the best move could be coming from your opponent,** and it doesn't make a difference! Learn to recognize and target positional chess weaknesses, and you will be attacking weaknesses that can't be undone.

Practical Notes and Advice – Lesson 17:

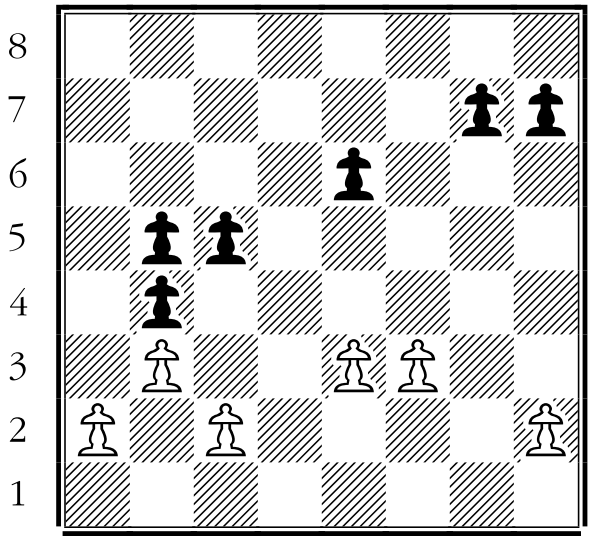
- **Do not assign the worksheets to your students until after all three parts of Lesson 17 have been reviewed in detail.**
- **Use the "pawns only" worksheet example diagrams to teach your students to see the bigger picture. Learning to recognize what is going on with the pawns during a game full of tactics is an important, master-level skill.**
- **Teach your students that square weaknesses (like out-posts, color complexes, etc.) are just as permanent in the position as pawn weaknesses.**
- **Revisiting the Mini-Games from Lessons 1 and 13 should be considered to give your students another shot at practicing pawn play at a high level.**

Lesson 17: Find the Weakness!

Circle all the positional weaknesses you can find in the diagrams below. Remember you are looking for doubled pawns, isolated pawns, backward pawns and outpost squares.



Circle the positional weaknesses!



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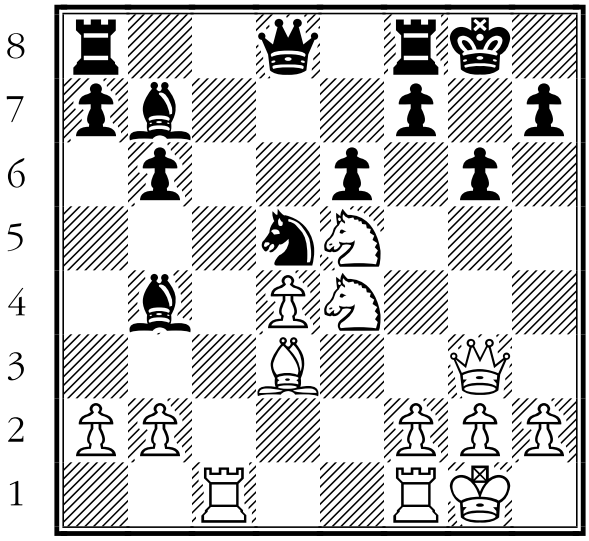

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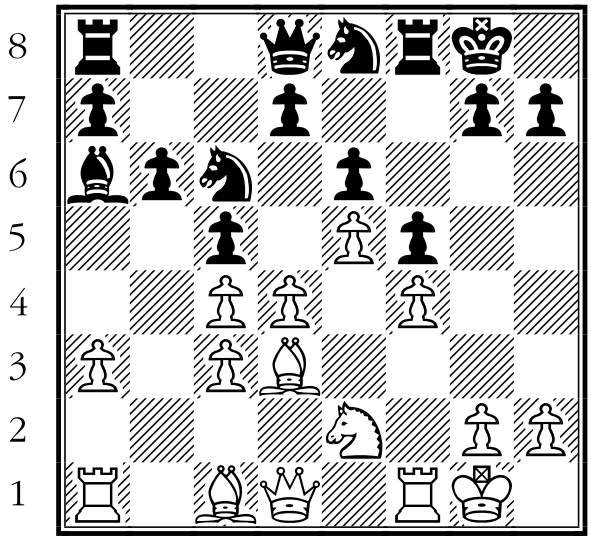

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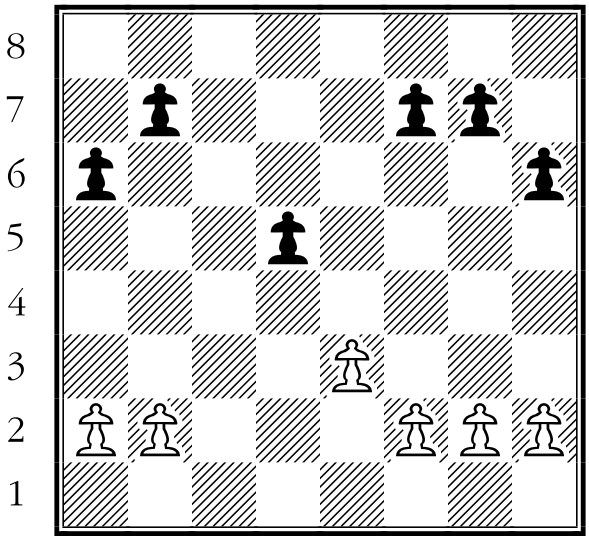

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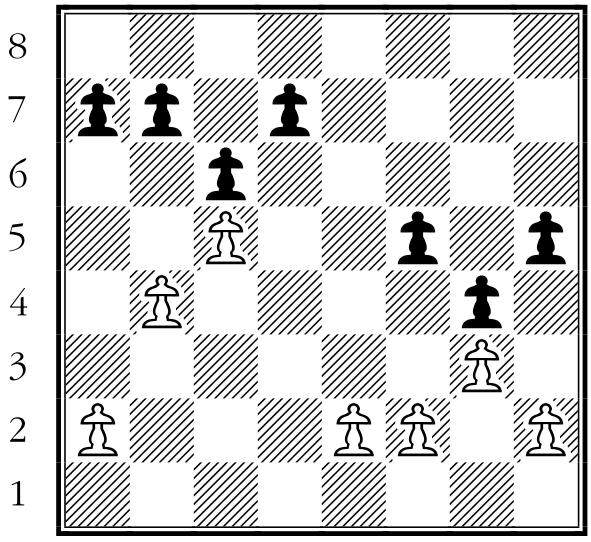

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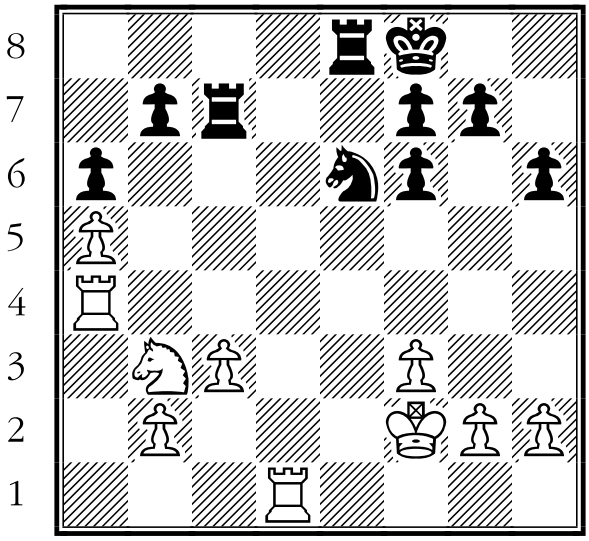

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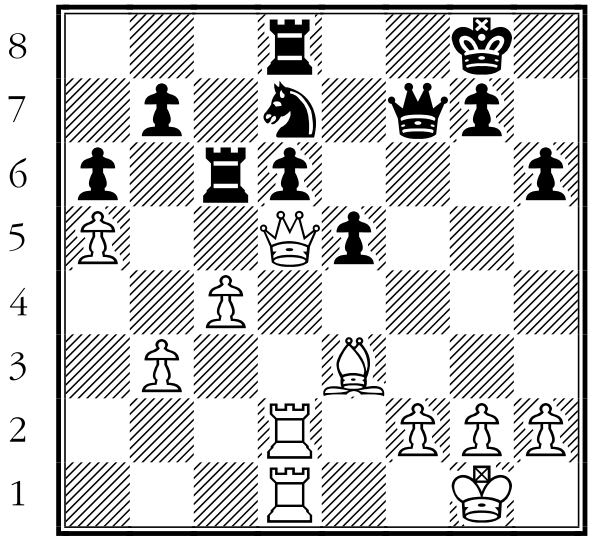

Circle the positional weaknesses!

Find the Positional Weakness!

Answer Key

Worksheet Page 1:

Diagram #1 – Circle: Black's d6-pawn and the d5-square. White's Knight can head to d5 with a large positional advantage for white: A great Knight vs a poor Bishop on e7.

Diagram #2 – Circle: White's d4-pawn and the f6 and h6 squares. Though white does not have an easy way to access the f6 or h6 squares, recognizing them as weak is important.

Diagram #3 – Circle: White's a2, c2 and h2 pawns; Black's doubled b-pawns and the e6-pawn. Learning to ***see the "pawns through the pieces"*** is a good skill. Also circle the a3 and c3 squares as out-posts.

Diagram #4 – Circle: White's a3-pawn and the doubled c-pawns. Black's d7-pawn and the d6-square. Note black can elimiate both weaknesses with a move like pawn to d6, trading.

Worksheet Page 2:

Diagram #1 – Circle: Back's d5-pawn.

Diagram #2 – Circle: Black's b7-pawn, the b6-square and the doubled f-pawns.

Diagram #3 – Circle: White's h2-pawn and the h3-square; Black's d7-pawn and the d6-square. Note that the f2-pawn and the b7-pawn are ***not*** backward because they have the support of *"brother pawns"* (the e-pawn for the f2-pawn and the a-pawn for the b7-pawn).

Diagram #4 – Circle: Black's b7-pawn, d6-pawn, the d5-square and the b6-square.