

### SECTION H – PROBLEM 1

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Published on SINFONIE SCACCHISTICHE (2019) **Waiting for verdict.**

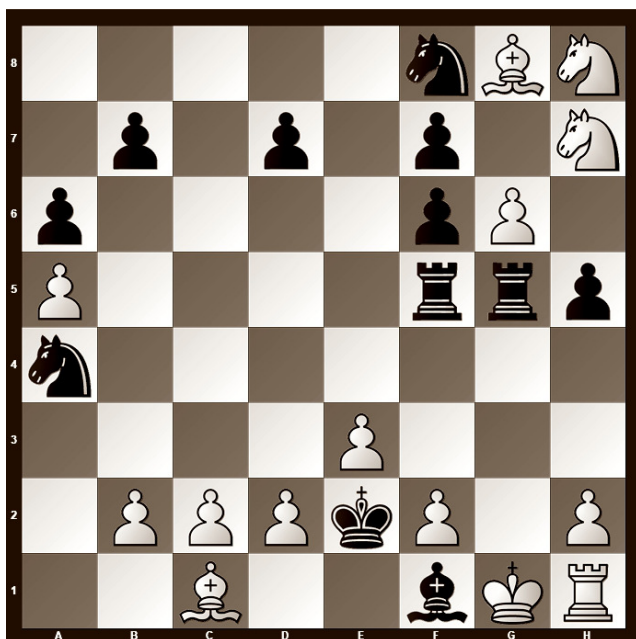
**Which King is the black one?**

The Black King is the one in g1.

Indeed, if the Ka1 is black, the position is illegal: wRf1 has no starting squares, and White short castling cannot be the last move (wK must have previously moved to allow the wR to take place in e2).

With the bK in g1, instead, there is a legal last move 1. ... Rxf1+.

FEN: 8/8/8/8/4P3/3PRP2/K4RK1



## SECTION H – PROBLEM 2

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**Last 2 halfmoves?**

White King is in check. bRg5 has no valid starting moves, so last move was a discovered check from bBf1. Clearly bBf1 is a promoted piece (b7 and d7 pawns are a proof), so it's necessary to know when the promotion took place.

If bBf1 has been previously promoted, last move could have been only 1. ... Bg2-f1+ or 1. ... Bg2xf1+. If bBf1 has been promoted on last move, there is a third option: 1. ... gxf1=B+.

Assuming that bBf1 has been previously promoted, which of the black pawns could have been promoted?

White has 2 missing units. One of them was obviously captured in f6.

Black C-file pawn couldn't promote, the shortest way via c4-b3-a2-b1 would have requested 3 captures. The same for E-file pawn: e4-f3-g1-f1/h1 or e4-f3-e2-d1/f1 would have requested 3 captures.

Black H-file pawn couldn't promote, because after h3-g2-f1/h1, the G-file black pawn would have requested another capture to reach H-file, and again 3 captures needed.

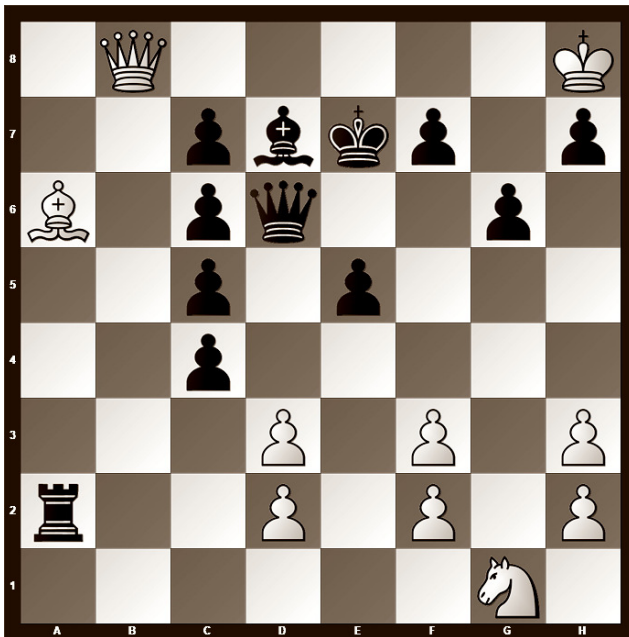
So, the only Black pawn that could have been promoted is the G-file one, with a total of 2 captures. Promoted Bishop could have played 1. ... Bg2-f1+. But not 1. ... Bg2xf1+, because all White pieces would have been already captured to obtain the Black pawns structure.

So, if Black last move has not been a capture, White had no legal moves to play. White pieces have no valid starting squares; the only possibility is a capture with 1. bxa5, but it's illegal. White g6 pawn indeed has captured two times at zig-zag to let the black G-pawn proceed, and not enough captures would have been available for white A-pawn to arrive on B-file and then again on A-file, since bBc8 could not escape and black C-file pawn could have not reached B-file.

So, if last move was not a capture, the position is illegal. Last move must then have been a capture, and since 1. ... Bg2xf1+ was excluded, the only possibility is the remaining 1. ... gxf1=B+.

Consequently, the only possible White previous move must have been 1. Rd1-f1, allowing the black pawn to capture. All other White moves would lead to illegal checks or excess of captures.

FEN: 5nBN/1p1p1p1N/p4pP1/P4rrp/n7/4P3/1PPPkP1P/2B2bKR



### SECTION H – PROBLEM 3

Composed by: **Daniele Gatti**

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**White has just captured a Black piece. But now White's position is losing. Black offers him to retract the move and suggests that another move would be winning for White.**

**What move should be retracted and what should be played instead?**

**Try:** *White retracts **Kg7xNh8** and then plays **1. Qf8+** (Not **Kg8xNh8**? **1. Qf8+ Kf6!** And Black wins)*

*Then **1. ... Ke6** **2. Bxc4+ Kf5** **3. Qxd6!** (Not **2. Bxa2?** **Qxf8+!** **3. Kxf8 g5!** **4. Kg7 Ng6!** Draw)*

***3. ... Qxd6 cxd6** **4. Bxa2 g5** **5. Kxh8** and White wins.*

But Illegal move!

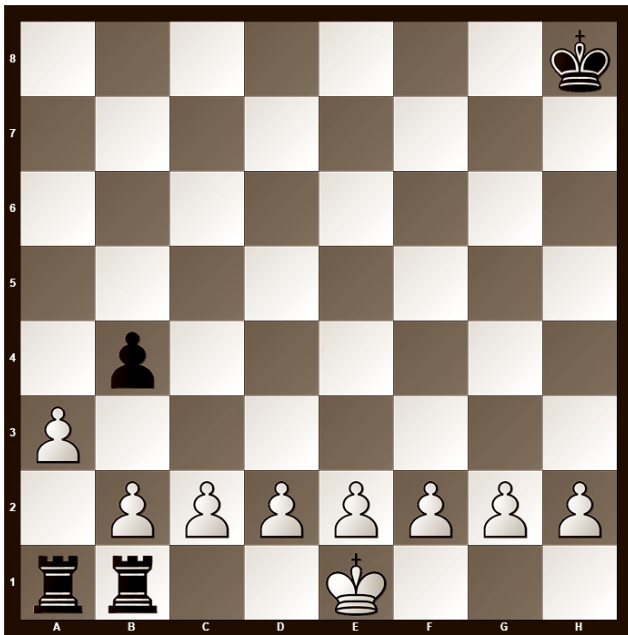
Three white Pawns captures took place on light squares (cxd3, exf3, gxh3). Black's missing units are a Rook, two Knights and a dark-squared Bishop. Since no dark-squared Bishop could have been captured by white pawns, it could be the only piece remaining for the white King to capture. So, no Knight in h8 could have been captured.

**Solution:** White retracts **Kg8xBh8** (not **Kg7xBh8** for obviously illegal configuration) and then plays **1. Qf8+!**

With the unique winning sequence:

**1. ... Kf6** **2. Qxf7+ Kg5** **3. f4+ exf4** **4. Nf3+ Kh5** **5. Qxh7#.**

FEN: 1Q5K/2pbkp1p/B1pq2p1/2p1p3/2p5/3P1P1P/r2P1P1P/6N1



#### SECTION H – PROBLEM 4

Composed by: **Daniele Gatti**

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**Waiting for verdict.**

**Demonstrate that White castled. Then point out last move.**

Since both bR are obviously promoted, it's necessary to count how many captures have been made by the black pawns in order to have two promoted bR on the 1<sup>st</sup> rank.

The theoretical minimum is 4 captures (example: axb3, bxa2, a1=R ; cxb3, axb2, a1=R). What happens if only 4 captures take place?

White's missing pieces are 2 Rooks, 2 Knights and the Queen. White Bishops have obviously been captured on their original square. So, if Black promotes the two Rooks capturing 4 White units, a White piece survives on the board, but it necessarily has to be placed between the bR and the wK, in order to prevent check. This is incompatible with the fact that the last move was obviously axb1=R# (still have to state what piece has been captured). It would have been impossible, for Black, to capture a White piece in b1 delivering checkmate without a promotion, because the bRb1 wouldn't have had a valid place to come from. Hence, it's impossible for Black to reach this configuration with 4 captures only. Logical consequence: the configuration must be reached with 5 captures.

What happens if Black captures all the 5 available White pieces and the last move is axb1=R#? Obviously, wRa1, wSb1, wSg1 and wQd1 can move to the queenside and be captured easily. But what about wRh1?

To reach the queenside, wRh1 has two options.

*Option A:* White castles short.

*Option B:* White does not castle, wK goes outside the pawn wall through the path a2-b3, wRh1 comes to b1 and then it's captured. But this leads to an absurdity: if wK is placed outside of the pawn structure, and a bP reaches b3, the return path for the wK remains permanently forbidden, because wK could never go back on the 1<sup>st</sup> rank without putting himself in check or capturing the bP or a promoted bR. And if wK stays behind the pawn wall, both wR are stuck

in the south-west corner without possibility to manoeuvre and let the wK get back to e1. Example: wKa2, wRa1, wRb1; or wKb3, wRa2, wRa1. There is no way to switch wKa2 and wRb1, or wKb3 and wRa2. Hence, *Option A* has to be true.

What was last move, then?

Possibly, wRRQ/S have been captured in the cage, wSS/Q outside. But the original wRh1 could not reach a2, because the path was blocked either by wQR, or by bPa2 or by promoted bR. To respect the 5 captures needed, it was necessarily captured on b1 as last move (**1. ... bxRb1=R#**). R(a1) had to be captured on a2, then Pa1=R. Later white played Q or S a2 to be captured. The other Rook had no chance to get to a2 because the promoted Rook was already sitting on a1. In fact, we also know that wQR was captured on a2 before Q/S was, else it couldn't have got past bPa2.

FEN: 7k/8/8/8/1p6/P7/1PPPPPPP/rr2K3