



THE PUZZLING SIDE OF CHESS

Jeff Coakley

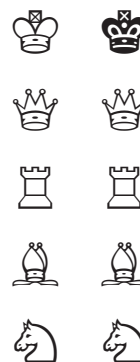
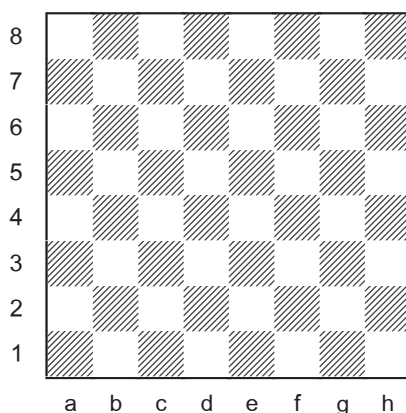
MAXIMIZING FUN

number 116

July 9, 2016

This column features two construction tasks. In the first, we seek the maximum mates in 1. In the second, we use the maximum pieces to achieve an unusual goal. Both problems have two parts. Good luck matching or breaking the records.

Construction Task 10



Construct a position with a white king, two queens, two rooks, two bishops, and two knights against a black king so that White has the most mates in one move.

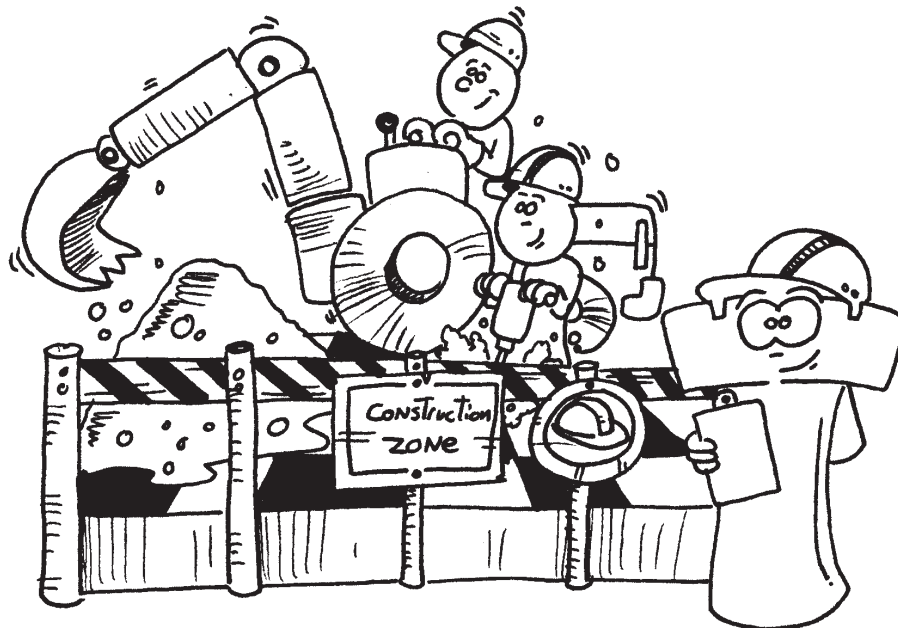
Bishops must be on opposite colours.

part a. Discovered checks are not allowed.

part b. Discovered checks are allowed.

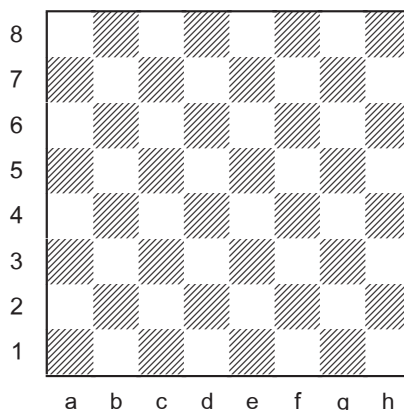
In *part b*, each different move by a piece that uncovers mate is counted separately.

Constructed positions must be legal, which means “reachable in an actual game”. Make sure there was a legal move on the previous turn. The usual difficulty is an impossible double check.



FIDE rule 9.7 states that “the game is drawn when a position is reached from which a checkmate cannot occur by any possible series of legal moves”. Our puzzle question is this: What is the most pieces on the board so that mate is impossible?

Construction Task 11



Construct a position, using the maximum number of pieces, so that neither player can possibly checkmate the other, even with the help of bad moves by the opponent. The position may not be a forced stalemate. At least one player must have the option to “play on”.

part a. No pawns are allowed.

part b. Pawns are allowed.

The record for *part b* is held by IM Geir Sune Tallaksen Østmoe of Norway. So you know it’s going to be tough to beat!

SOLUTIONS

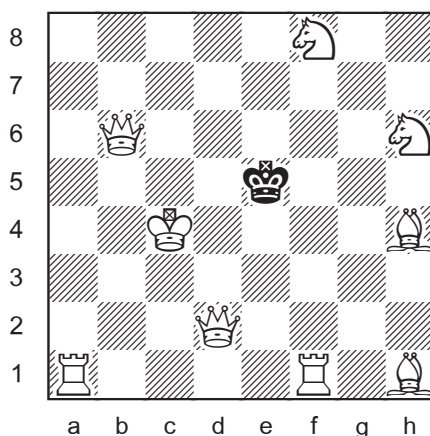
Problems 10ab, 11a by J. Coakley, *Puzzling Side of Chess* (2016).

PDF hyperlinks. You can advance to the solution of any puzzle by clicking on the underlined title above the diagram. To return to the puzzle, click on the title above the solution diagram.

Archives. Other columns with similar problems can be found in the Puzzling Side archives.

Construction Task 10

10a. no discovered checks



33 mates in one

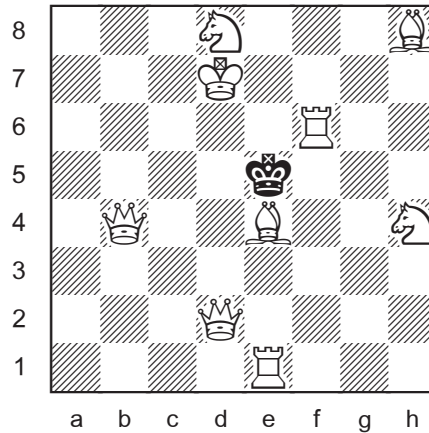
(Q11 + Q12 + R2 + R2 + B2 + B0 + N2 + N2)

last moves: 1.Rf3-f1+ Ke4-e5

This number (33) is the theoretical maximum. The most mates by a single queen is 12. The most by a second queen is 11.



10b. with discovered checks



47 mates in one

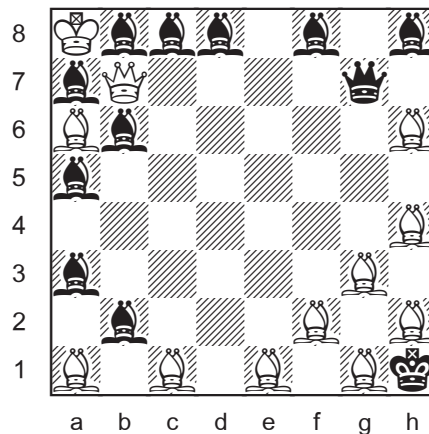
(Q9 + Q8 + R0 + R14 + B12 + B0 + N2 + N2)

last moves: 1.Bd3-e4+ Kd5-e5

This number (47) has not been proven by computers to be the maximum. Perhaps someone will raise the mark.

Impossible Mate Maximizer

11a. no pawns



24 pieces

no possible mate

last move: 1.Qb7+ (game drawn at this point)

forced sequence: 1...Qxb7+ 2.Bxb7+ Bxb7+ 3.Kxb7

(Black's moves can be interchanged.)

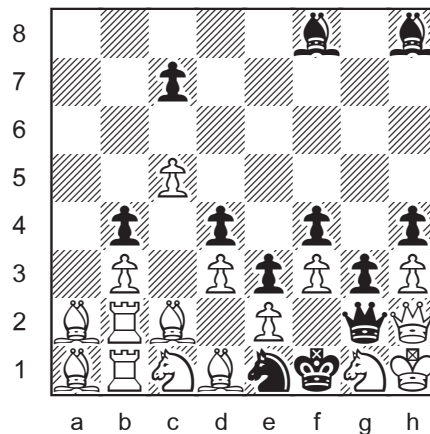
This number (24) is the theoretical maximum. The promotion of 16 pawns to dark-square bishops requires 8 captures. $32 - 8 = 24$.

King + bishop vs. king + bishop of the same colour is a well known "dead draw". 18 bishops on the same colour doesn't change anything.

11b. pawns allowed

Geir Sune Tallaksen Østmoe 2016

Puzzling Side of Chess



28 pieces

no possible mate

last move: 1...Qg2+ (game drawn at this point)

forced sequence: 2.Qxg2+ Nxg2 3.c6 Ke1 4.Kxg2

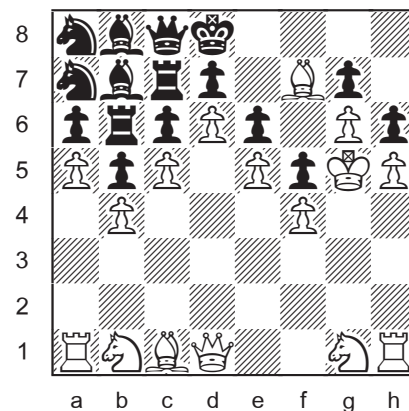
(Other third moves by Black are stalemate.)

This problem was originally intended for a *Chess Cafe* column last summer. I had composed a similar position with 27 pieces but felt that it wasn't maxed out yet. So I sent it to Geir Sune, who has a special knack for this kind of task. A day later, I received his 28 piece solution. He had redesigned the lower kingside and added the extremely clever pawn on c5. Neither of us has been able to extend the record. [April 2018: See columns 127 and 145 for new records.]

By the way, it is quite easy to make a position with 32 pieces in which there is a forced stalemate.

Last move: 1...h6+ $\frac{1}{2}$ - $\frac{1}{2}$
(2.Kh4 stalemate)

Until next time!



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