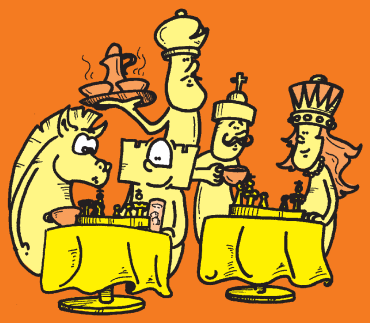


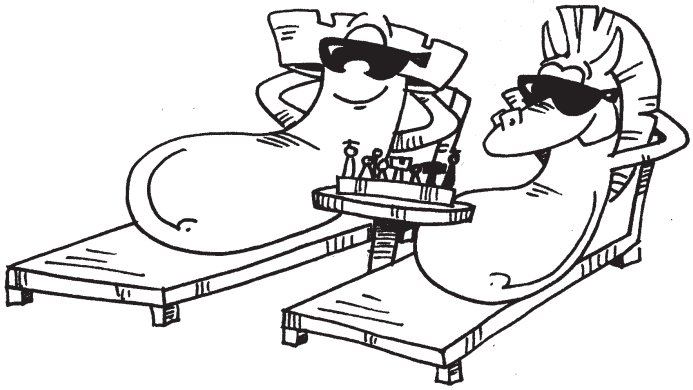
THE PUZZLING SIDE OF CHESS

Jeff Coakley

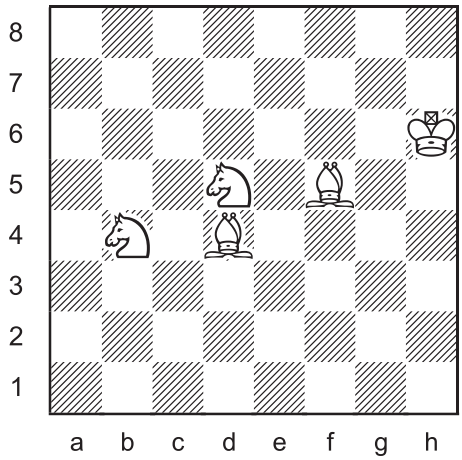
LOYDS AND RHOMBOIDS

number 122 August 20, 2016

Relaxing in the sun, pondering the nature of life and fun. “Four puzzles and two lemonades, please.”



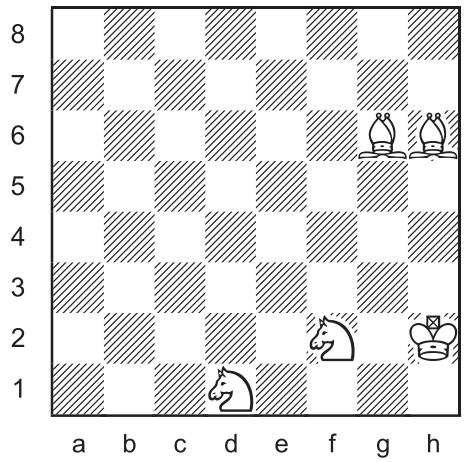
Triple Loyd 58



Place the black king on the board so that:

A. Black is in checkmate.
B. Black is in stalemate.
C. White has a mate in 1.

Triple Loyd 59

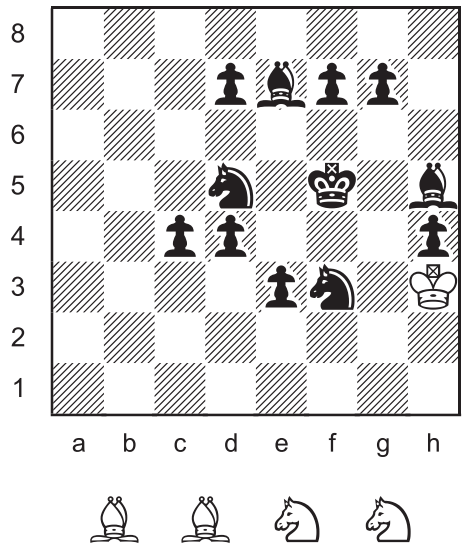


Place the black king on the board so that:

A. Black is in checkmate.
B. Black is in stalemate.
C. White has a mate in 1.

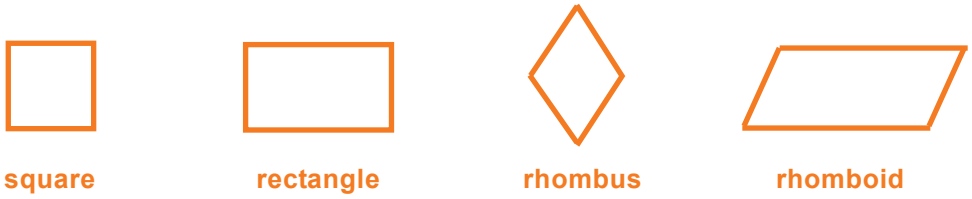
Next up is an inverted loyd, turning our heads and the minor piece theme around.

Inverted Loyd 38



Place two white bishops and two white knights on the board so that White has mate in 1.

The final puzzle may require a geometric introduction. A *parallelogram* is a four-sided figure in which the opposite sides are parallel and equal in length. There are four types:

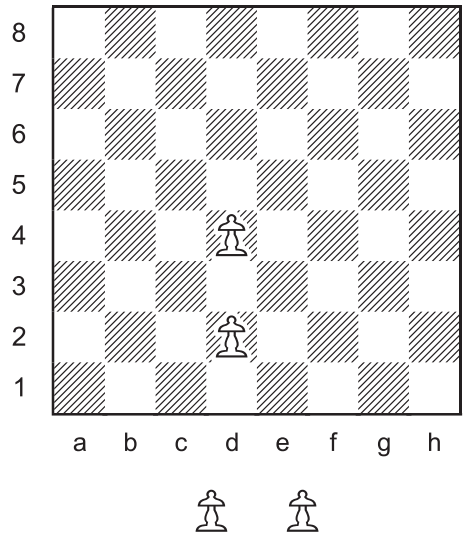


square **rectangle** **rhombus** **rhomboid**

Squares and rectangles have right angles (90°). Rhombi and rhomboids do not.

In squares and rhombi, all four sides are equal in length. In rectangles and rhomboids, only opposite sides are equal.

Rhomboids



A. In how many ways can two pawns be added to the board so that the four pawns form a rhomboid?

Do not count squares, rectangles, or rhombi.

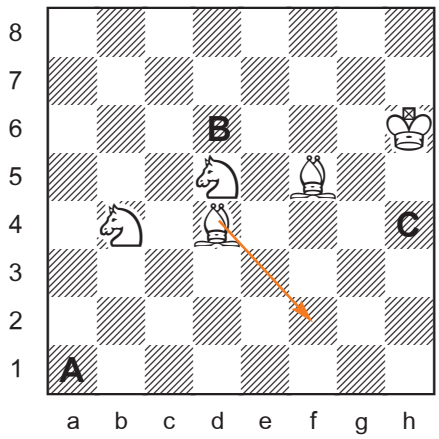
B. How many squares, rectangles, and rhombi can be formed by adding two pawns?

SOLUTIONS

All problems 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.

Triple Loyd 58

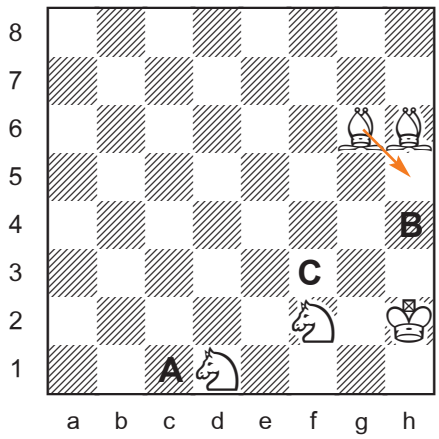


A. Ka1#
B. Kd6=
C. Kh4 (Bf2#)

Criss-cross mate.

Not named for singer Christopher Cross of “Sailing” fame.

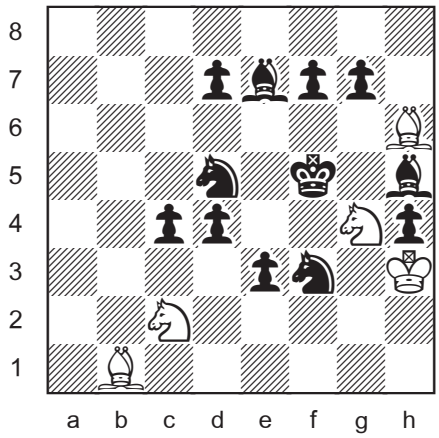
Triple Loyd 59



A. Kc1#
B. Kh4=
C. Kf3 (Bh5#)

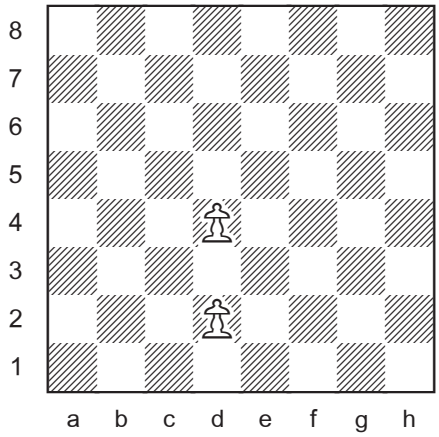
Minor pieces and major keys.

Inverted Loyd 38



Bb1, Nc2, Ng4, Bh6 were added.
1.Nxd4#

Rhomboids



There are **47** ways to form a rhomboid by adding two pawns.

Same file (35):
a1-a3, a3-a5, a4-a6, a5-a7, a6-a8, b1-b3, b3-b5, b4-b6, b5-b7, b6-b8
c1-c3, c3-c5, c4-c6, c5-c7, c6-c8, e1-e3, e3-e5, e4-e6, e5-e7, e6-e8,
f1-f3, f3-f5, f4-f6, f5-b7, f6-f8, g1-g3, g3-g5, g4-g6, g5-g7, g6-g8,
h1-h3, h3-h5, h4-h6, h5-h7, h6-h8

Mixed files (12):
a1-g5, a2-g4, a4-g2, a5-g1, b1-f5, b2-f4, b4-f2, b5-f1, c1-e5, c2-e4,
c4-e2, c5-e1

The four sides are not equal with b1-b3.

See the next page for parallelograms that are not rhomboids.

3 ways to form a square.

b2-b4, f2-f4, c3-e3!

5 ways to form a rectangle.

a2-a4, c2-c4, e2-e4, g2-g4, h2-h4

2 ways to form a rhombus.

a3-g3, b3-f3

Total number of parallelograms = 47 + 3 + 5 + 2 = 57

Until next time!