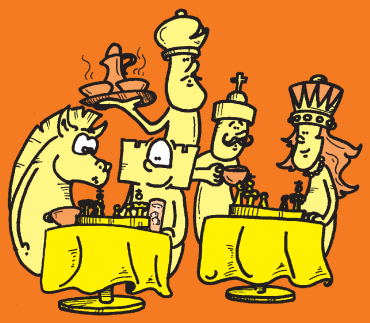


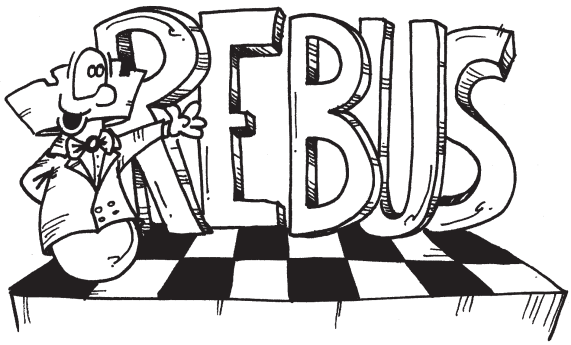
THE PUZZLING SIDE OF CHESS

Jeff Coakley

REBUS: A Puzzle From Things

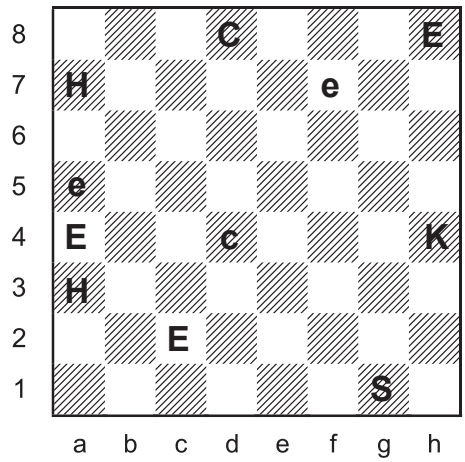
number 148 April 28, 2018

A chess *rebus* is a sudoku-style puzzle in which the pieces in a given position are represented by letters. The goal is to “decode the board”, determining the colour and type of each piece, and if possible, the last move. A fun task that requires various degrees of deductive analysis.



Rebus 12

“*checks*”

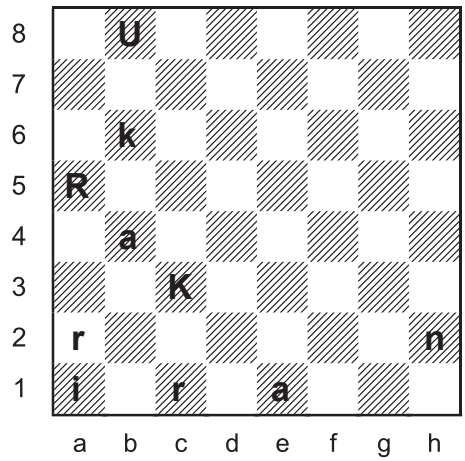


Each letter represents a different type of piece.
Uppercase is one colour, lowercase is the other.
Determine the position and, if possible, the last move.

At the request of the organizers, the following rebus was specially composed by Andrey Frolkin and me for the *2017 Ukrainian Student Mathematics Olympiad*. Not too hard, but hopefully not too easy.

Rebus 13

"*Ukraina*"



Each letter represents a different type of piece.
Uppercase is one colour, lowercase is the other.
Determine the position and, if possible, the last move.

The word 'rebus' is derived from the Latin 'res', which means "thing". Language scholars would note that 'rebus' is the ablative plural case of this noun, which translates to the prepositional phrase "from things".

A rebus is thus a "puzzle from things". In its common form, the *things* are a row of images which depict a meaningful sentence. Can you see what the following rebus says?

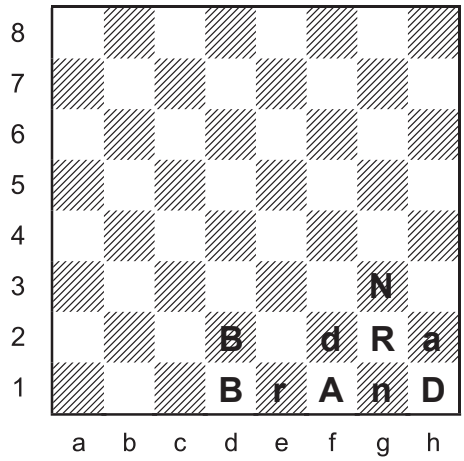
In a chess rebus, the *things* are letters on squares. The goal is to convert them into a legal position. **I can see!**

Our final puzzle is dedicated to Thomas Brand on the occasion of his 60th birthday (April 25). A leading authority on retrograde analysis, he is the current retro editor for *Die Schwalbe*, a German magazine devoted to chess problems.

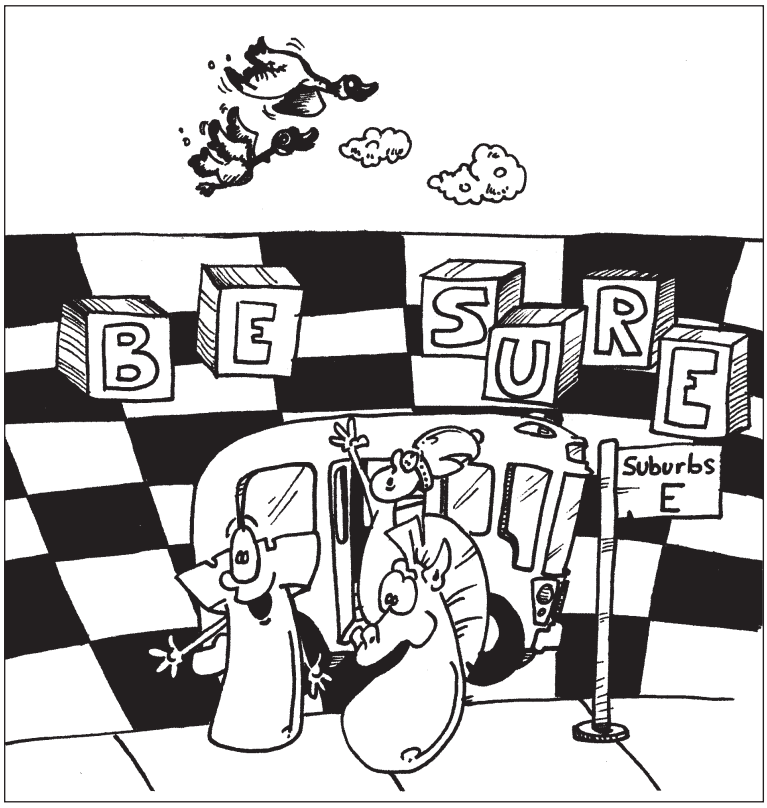
With four potential king pairs, this rebus should present more of a challenge than the first two, even to experienced solvers.

Rebus 14

"*Brand*"



Each letter represents a different type of piece.
Uppercase is one colour, lowercase is the other.
Determine the position and, if possible, the last move.



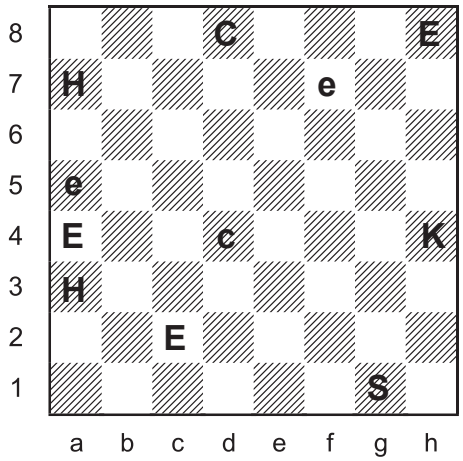
SOLUTIONS

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.

Rebus 12

Andrey Frolkin & Jeff Coakley 2018

Puzzling Side of Chess

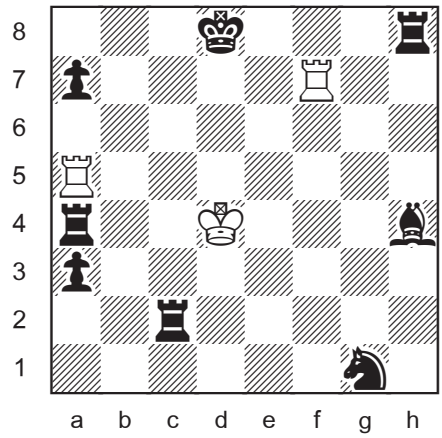


"checks"

C = king
H = pawn
E = rook
K = bishop
S = knight

caps = black

last move:
1...b4xa3+



(3 + 8)

Solutions are given with *rebus notation*, an abbreviated method of describing logical deductions. The notation is mostly self-explanatory. See rebus 01 in column 133 for a detailed explanation.

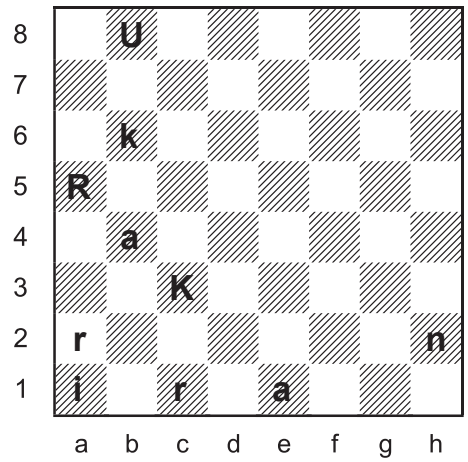
C = ♔	Only letter with one uppercase, one lowercase.
E ≠ ♕♗ (a5+, h8+)	Both kings in check.
E ≠ ♘ (c2+, f7+)	Both kings in check.
E ≠ ♙ (h8)	There is an E on the 8th rank.
E = ♖ (a4+)	The rook on a4 is checking the king on d4.
S ≠ ♕♗ (g1+)	Impossible double check.
S ≠ ♙ (b1)	There is an S on the 1st rank.
S = ♘	
H ≠ ♕♗ (a7+)	Impossible double check.
H = ♙	
K ≠ ♕ (h4+)	Impossible double check.
K = ♗	
last move: ...b4xa3+	Only way to explain a check by the rook on a4.
caps = black	

Rebus 13

Andrey Frolkin & Jeff Coakley 2017

Ukraine Student Mathematics Olympiad

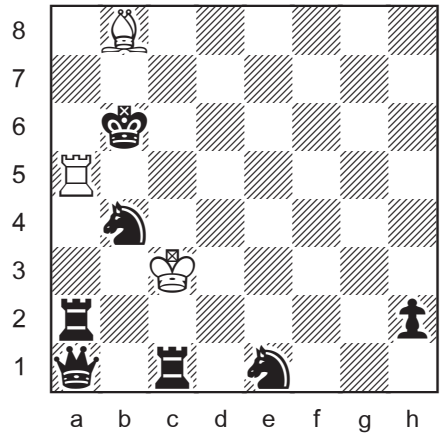
"*Ukraina*"



U = bishop
K = king
R = rook
A = knight
I = queen
N = pawn

caps = white

last move
1...b2xc1=R+



(3 + 7)

K = ♔ Only letter with one uppercase, one lowercase.

N = ♙ Only letter besides K not on 1st or 8th rank.

R = ♖ R ≠ ♕ (a5+, c1+) Both kings in check.

R ≠ ♗ (a5+) Impossible check. The checking bishop could not move to a5 last turn.

R ≠ ♘ (a2+) Impossible check. The checking knight could not move to a2 last turn.

The king on c3 is in check from the rook on c1.

A = ♘ A ≠ ♕♗ (b4+, e1+) Impossible triple check.

U = ♗ U ≠ ♕ (b8+) Both kings in check.

I = ♕ Only remaining unassigned letter.

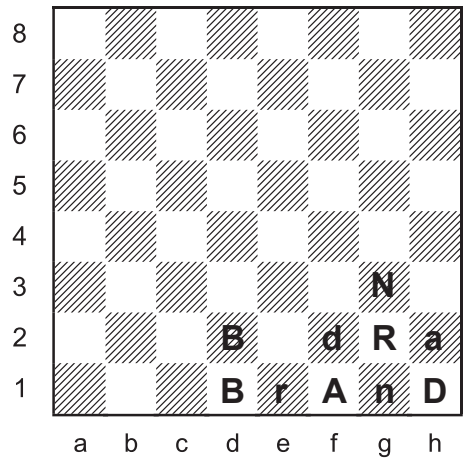
The king on c3 is in check from the queen on a1 and the rook on c1. This double check could only occur if the last move was ...b2xc1=R+. This pawn promotion means that the lowercase letters are the black pieces.

caps = white

Rebus 14

Andrey Frolkin & Jeff Coakley 2018

Puzzling Side of Chess

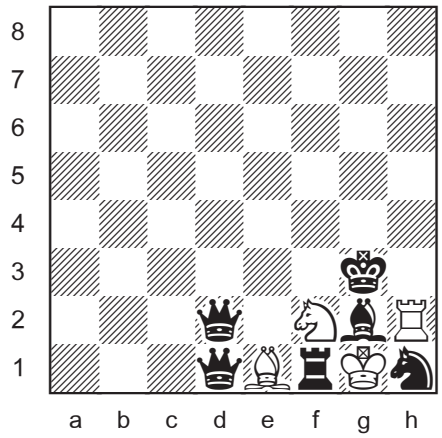


"*Brand*"

B = queen
R = bishop
A = rook
N = king
D = knight

caps = black

last move:
1...e2xf1=R#



(4 + 6)

♔ = (RAND) The letters with one uppercase, one lowercase.

♙ = Ø There are no pawns. All letters appear on 1st rank.

R ≠ ♔ If R = ♔

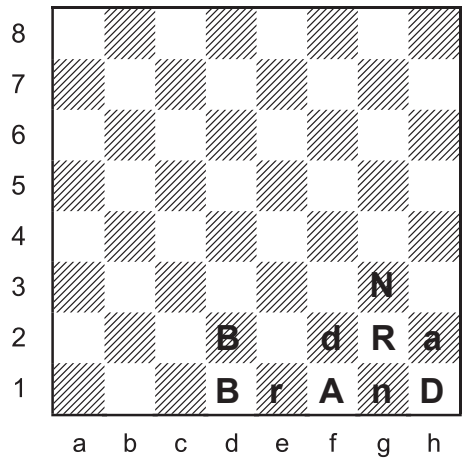
A ≠ ♕♖ (f1+, h2+)	Both kings in check.
N ≠ ♕♖ (g1+)	Impossible check.
B ≠ ♕ (d1+, d2+)	Impossible double check.
D = ♕ (f2+)	Queen on f2 <u>checks</u> king on e1.
B ≠ ♖ (d1+)	Impossible double check.
♖ = Ø?	Impossible to assign rook.

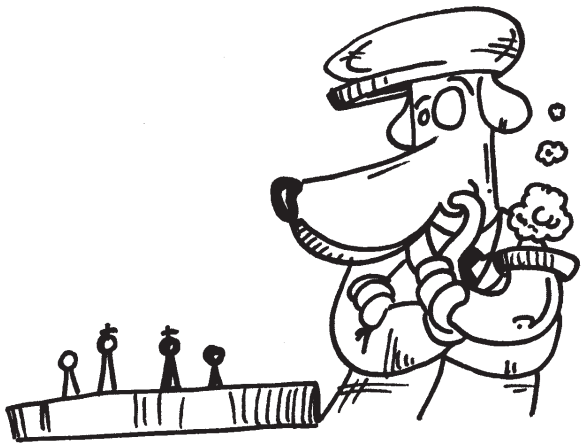
A ≠ ♔ If A = ♔

D ≠ ♕♖ (f2+, h1+)	Both kings in check.
N ≠ ♕♖ (g1+)	Impossible check.
R ≠ ♕♖ (e1+, g2+)	Both kings in check.
♕♖ = ?	Impossible to assign both queen and rook to B, the only remaining letter.

D ≠ ♔ If D = ♔

A ≠ ♕♖ (f1+, h2+)	Both kings in check.
N ≠ ♕♖ (g1+)	Impossible check.
R ≠ ♖ (g2+)	Impossible check.
B = ♖ (d2+)	Rook on d2 <u>checks</u> king on f2.
R ≠ ♕ (g2+)	Impossible double check.
♕ = Ø?	Impossible to assign queen.





N = ♔ Only remaining option.

D ≠ ♕♖ (h1+) Impossible check.

R ≠ ♕ If R = ♕ (g2+)

The queen on g2 checks the king on g1.

D ≠ ♗ (f2+) Both kings in check.

D = ♘

A ≠ ♗ (h2+) Both kings in check.

A ≠ ♖ (f1+) Impossible double check.

A = Ø? Impossible to assign a piece to letter A.

A ≠ ♕ (f1+, h2+) Both kings in check.

B = ♕

R ≠ ♖ (g2+) Impossible check.

A = ♖ (f1+) The rook on f1 checks the king on g1.

D ≠ ♗ (f2+) Both kings in check.

D = ♘

R = ♗

last move: 1...e2xf1=R# Only way to explain the rook check.

uppercase = black

This position is a minimalist record. The fewest pieces (10), and the fewest letters (5), in a rebus with four potential king pairs.

Until next time!