



# THE PUZZLING SIDE OF CHESS

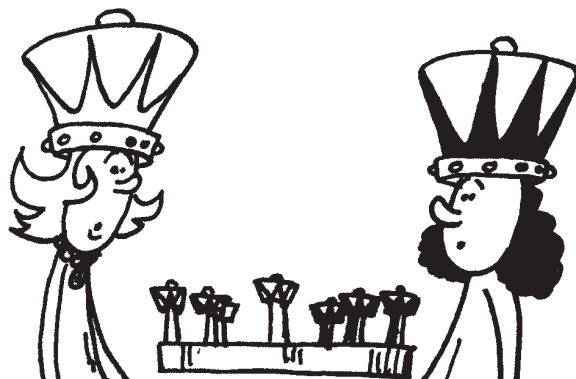
Jeff Coakley

## THE RETURN OF QUEENFEST

number 106

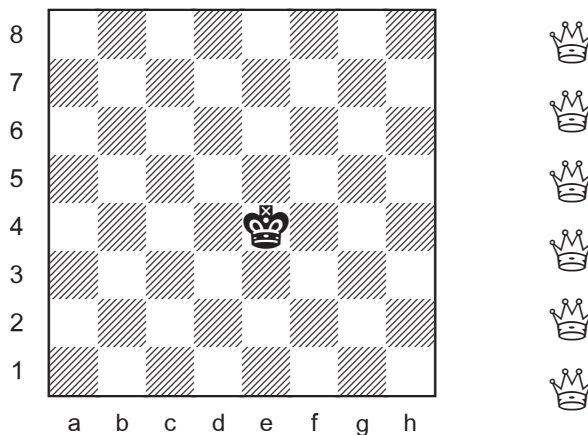
April 30, 2016

Welcome, friends, to Queenfest VII, the seemingly never-ending series of columns devoted to construction tasks involving multiple queens.



Our first puzzle is a sort of *conditional domination stalemate*. All squares except the one occupied by the black king must be attacked, and the queens must keep a safe distance on the first or last ranks.

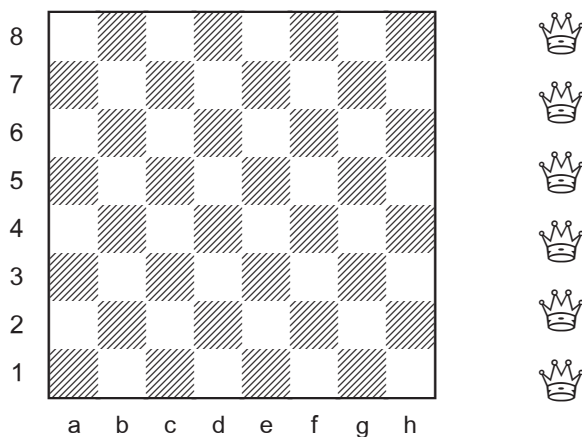
### Queenfest 25a



Place six queens on the board,  
only on the 1st or 8th ranks,  
so that every square is attacked except e4.

For those seeking complete domination, here's a slightly more challenging stipulation.

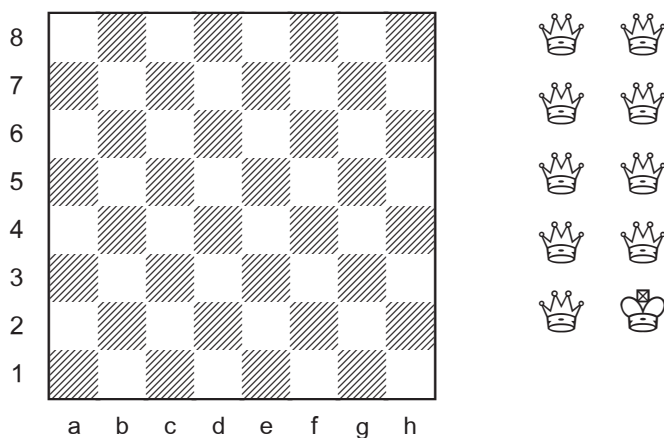
### Queenfest 25b



Place six queens on the 1st or 8th ranks so that every square is attacked.

Next we shift from domination to *independence* with an interesting nine queen task by Dutch composer Wim Bodlaender.

### Queenfest 26

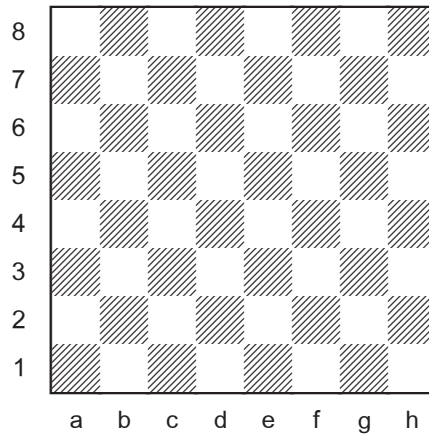


Place nine queens and one king on the board so that no queen is attacked by any other queen.

Earlier *Queenfest* columns will eventually be available in the archives. Depending on when you read this, they may already be there. For now, a handy chart at the end of the solution pages summarizes the current results of our grand quest.

In this week's final problem, there is no requirement for the position to be legal. The number of queens is unlimited.

## Queenfest 27



Compose a position with a white king  
and the maximum number of queens  
against a lone black king  
so that there is no mate in one.  
What is the maximum?



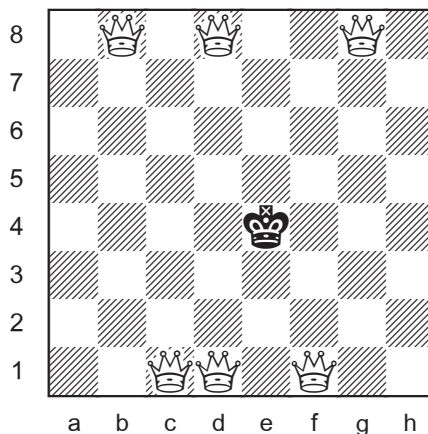
*The New Queen of Chess*  
**Hou Yifan**  
2016 Women's World Champion

# SOLUTIONS

Problems 25ab and 27 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.

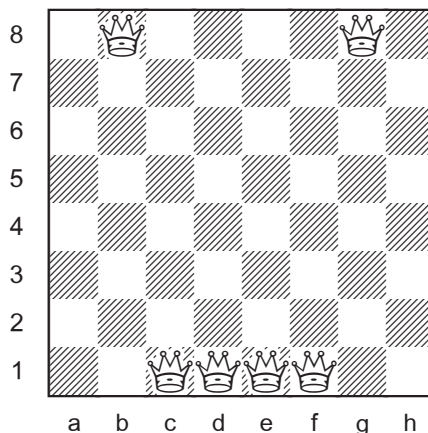
## Queenfest 25a



Every square except e4 is attacked.  
Stalemate.

There are many other solutions.

## Queenfest 25b

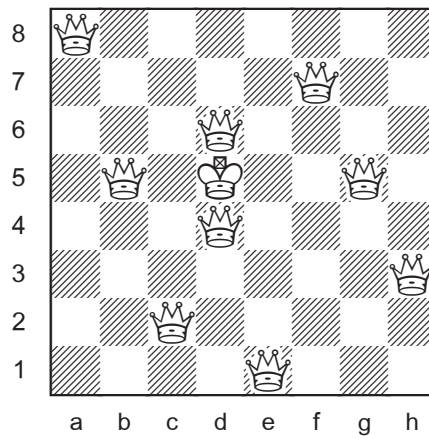


Every square is attacked.

Two other solutions: Qb8 Qc8 Qd1 Qe1 Qf8 Qg8  
Qb1 Qc8 Qd1 Qe1 Qf8 Qg1

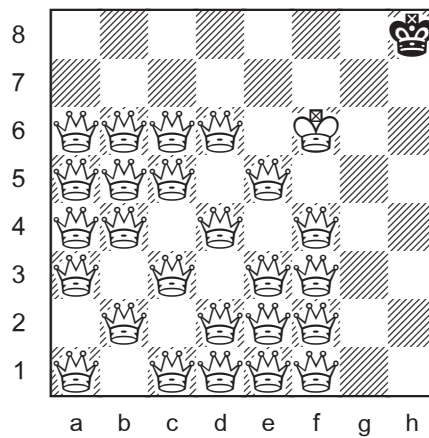
## Queenfest 26

Wim Bodlaender 2004  
*Chess Variants Pages*



No queen is attacked by another queen.

## Queenfest 27




25 queens, no mate in 1.

The black king could also stand on g8 or h7.



The following chart shows the results from previous *Queenfests*. Asterisks indicate unique patterns. The only values which have not been verified by computer are most and fewest moves with twelve and thirteen queens. Computation time is several months!?

	MOVES		SQUARES ATTACKED			
	number of queens	most	fewest	most	most Qs unguarded	fewest
1	27*	21	27*	27*	21	21
2	52	34	44*	42	33	34
3	77*	41*	54*	52	39	43
4	100	44*	61	58	40*	48
5	123	51*	64	59	47	52*
6	144	54*		58	49	54
7	163	57*		57	51*	56
8	182	59*		56	53	56
9	201	61*			54	
10	214*	64*			55	
11	225*	66			56	
12	236*	68*			57	
13	243*	67*			57*	

Until next time!

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