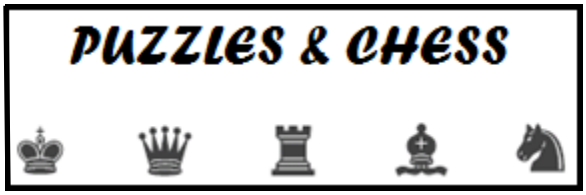


LMI DECEMBER PUZZLE TEST

„PUZZLES & CHESS“

11-12. DECEMBER 2010.

INSTRUCTION BOOKLET

(PUZZLES BY NIKOLA ZIVANOVIC)

SUBMISSION: http://logicmastersindia.com/M201012P

10 PUZZLES – 70 MINUTES

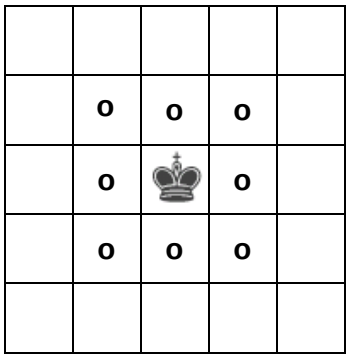
POINTS TABLE	
CHESS BATTLESHIPS	13
CHESSDOKU	9
TAPA CHESS	14
ARROWS CHESS	10
HITORI CHESS	8
HIDDEN WORDS	5
CHESS SNAKE	7
FILOMINO CHESS	16
CHESS SWEEPER	5
PENTA CHESS	13
Total	100 points

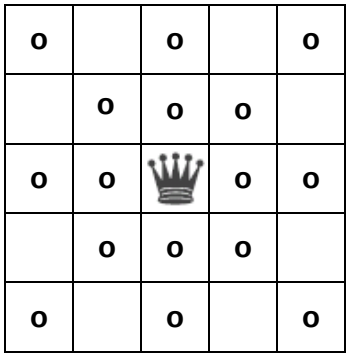
GENERAL INSTRUCTIONS:

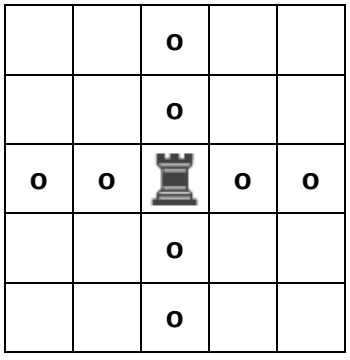
• Before the test starts, a password protected PDF file will be available to download. This will contain the test puzzles.
• After you start the test, the password will be shown to you. You can open the PDF using the password, solve on paper and enter the answer keys using the website.
• After you start the test, submission is allowed upto **70 minutes**.
• Time bonus of 1 point per minute saved will be awarded only if all the puzzles are solved correctly.
• There wont be any provision to solve online. After solving on paper, you have to copy the answer keys and submit.
• A timer will be available for you on the test page.
• The submission page will warn you when you are trying to enter the answer keys in the wrong format. This is just a warning, and your submission will be accepted even if there are warnings.
• Every puzzle has **1 or 2 answer keys**.
• You may submit as many times as you want. Only your last submission will be considered for scoring.
• Points are generally indicative of the difficulty of the puzzles and time required to solve it. However, personal experience and preference might differ.

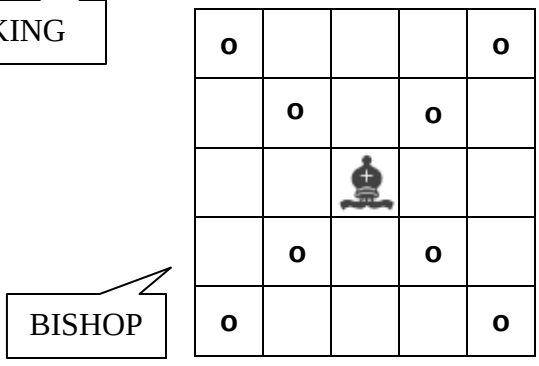
PUZZLE INSTRUCTIONS

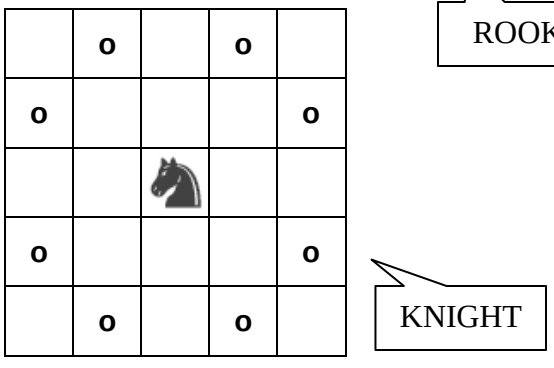
• For solving the puzzles it is enough to know movement of the chess pieces:









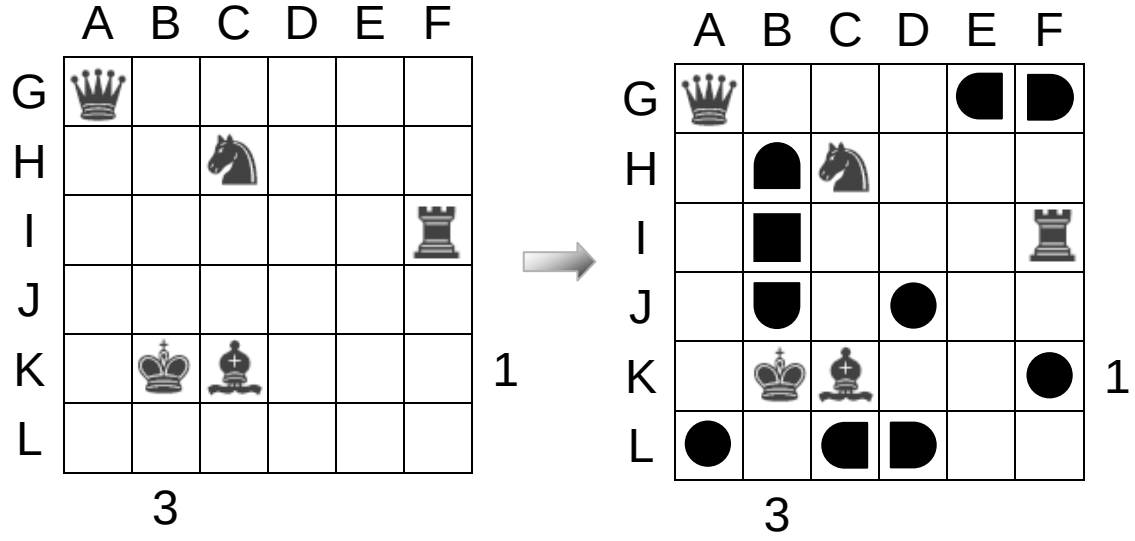


• In each puzzle will appear exactly 5 chess pieces (King, Queen, Rook, Bishop and Knight).
• There will not be the case that a figure block another one.
• The examples given below only explain the rule of the puzzle and is not a puzzle by itself.
• The Puzzle Booklet will contain the instructions of puzzles but not the examples.

1. CHESS BATTLESHIPS

Place in the grid complete set of standard battleships (small fleet in the example), so that **each chess piece attacks exactly one ship of every kind.** Ships cannot touch each other, not even diagonally. Digits outside the grids show the number of cells occupied by ships in corresponding row or column.

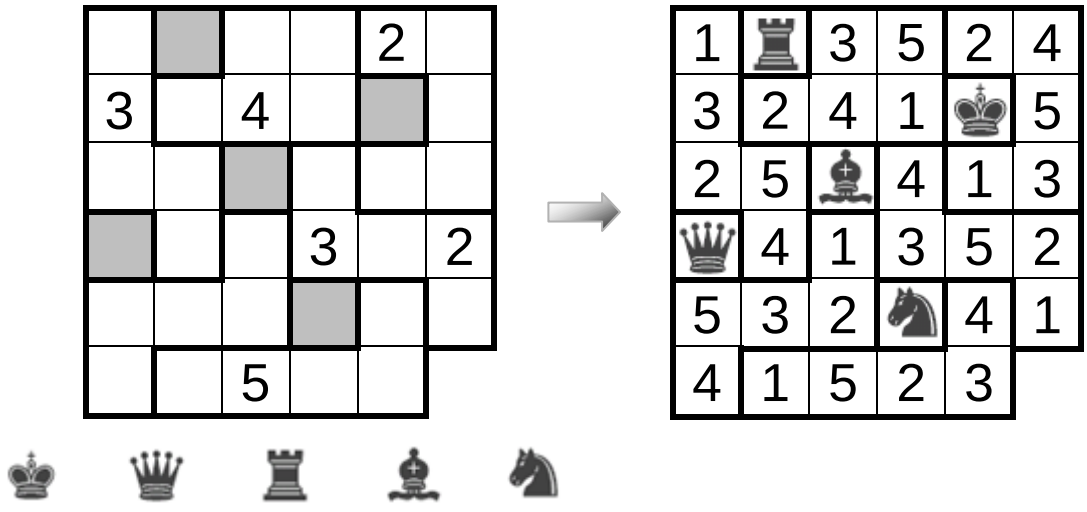
Note: A ship could cover another one for queen's, rook's or bishop's movement.



Answer key: Enter the coordinates of one-cell ships from top to the bottom. For the given example the answer would be: DJ, FK, AL.

2. CHESSDOKU

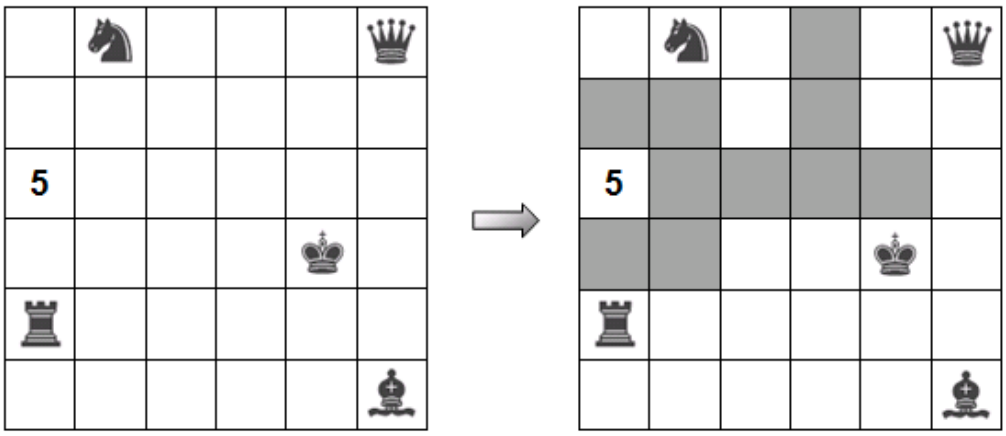
Every row, column and thick outlined region contain the numbers 1 to 5. **Place the five chess pieces in the gray cells so that each piece attacks exactly two digits 1.**



Answer key: Enter the content of the 3rd row, follow the content of the 3rd column. Use K for king, Q for queen, R for rook, B for bishop or N for knight. For the given example the answer would be: 45B213, 13B452.

3. TAPA CHESS

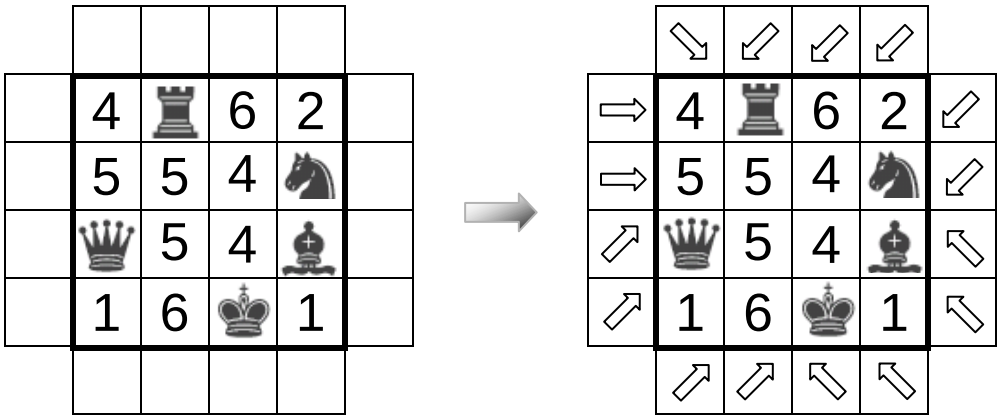
Paint some squares black to create a wall. Number(s) in a square indicate the length of black cell blocks on its neighbouring cells. If there is more than one number in a square, there must be at least one white square between the black cell blocks. Painted cells cannot form a 2x2 square or larger. There are no wall segments on cells containing numbers or chess pieces. **Each chess piece attacks the same number of segments of the tapa.**



Answer key: Enter the number of the shaded (tapa) cells in each row starting from top row. For the given example the answer would be: 134200.

4. ARROWS CHESS

Draw arrows in the squares around the large square. Each square has one arrow. Each arrow points to the grid (not necessery to the number, it may be a chess piece only). **The numbers show the total number of arrows and chess pieces pointing and attacking towards them.**

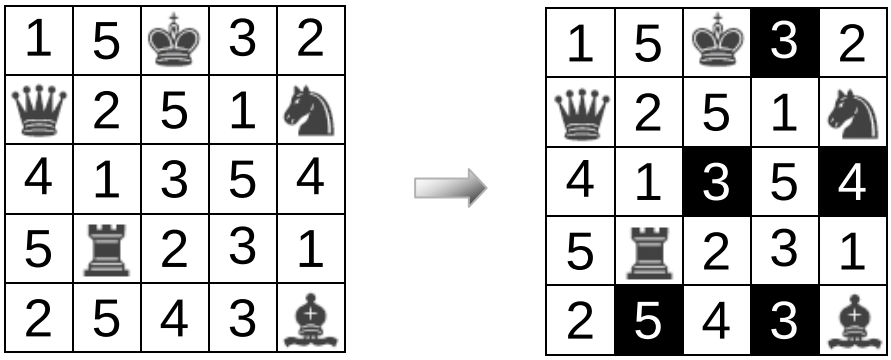


Answer key: Enter the total number of horizontal and vertical arrows. For the given example the answer would be: 2.

5. HITORI CHESS

Black out some of the digits in the grid so that each row and each column contains distinct digits. Black cells must not touch each other horizontally or vertically. It must be possible to visit any white cell from another white cell using horizontal or vertical paths. **Each chess piece attacks the same number of black cells.**

Note: Cells with the chess pieces is treated as white cells.

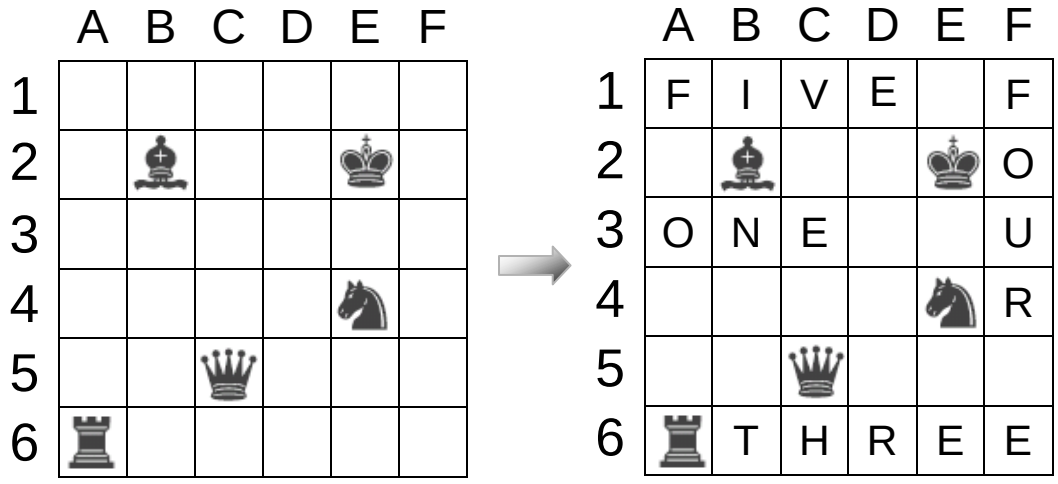


Answer key: Enter the number of the shaded cells in each row starting from top row. For the given example the answer would be: 10202.

6. HIDDEN WORDS

Place all words from the list into the grid (words appear either across or down). Words cannot touch each other, even diagonally. **Each chess piece attacks exactly three vowels (A, E, I, O or U).**

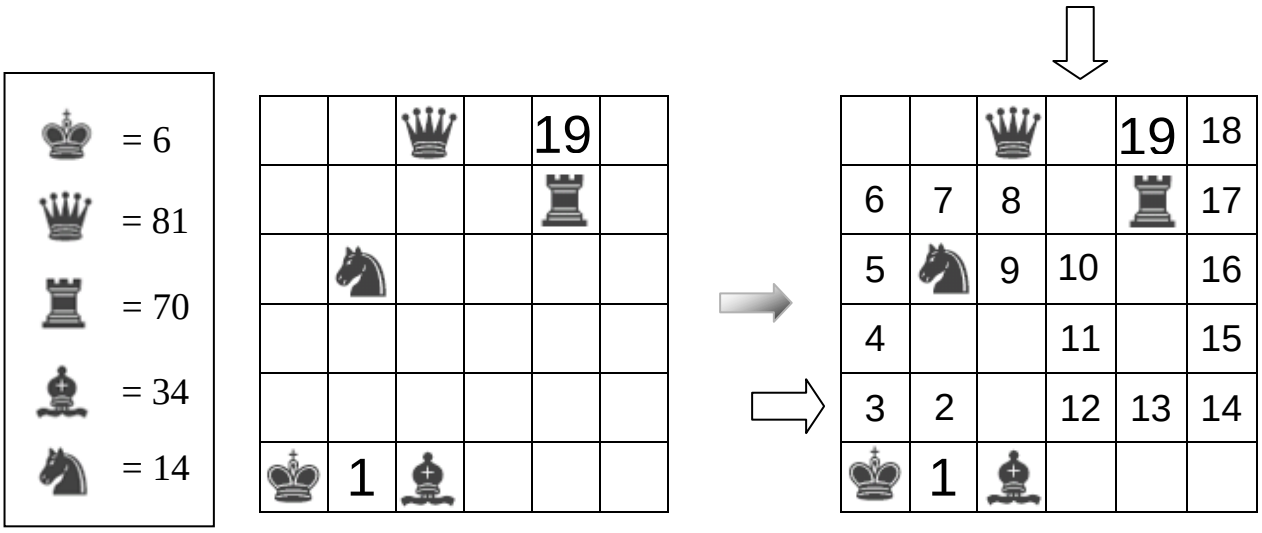
ONE
THREE
FOUR
FIVE



Answer key: Enter the coordinates of all letters I. For the given example the answer would be: B1.

7. CHESS SNAKE

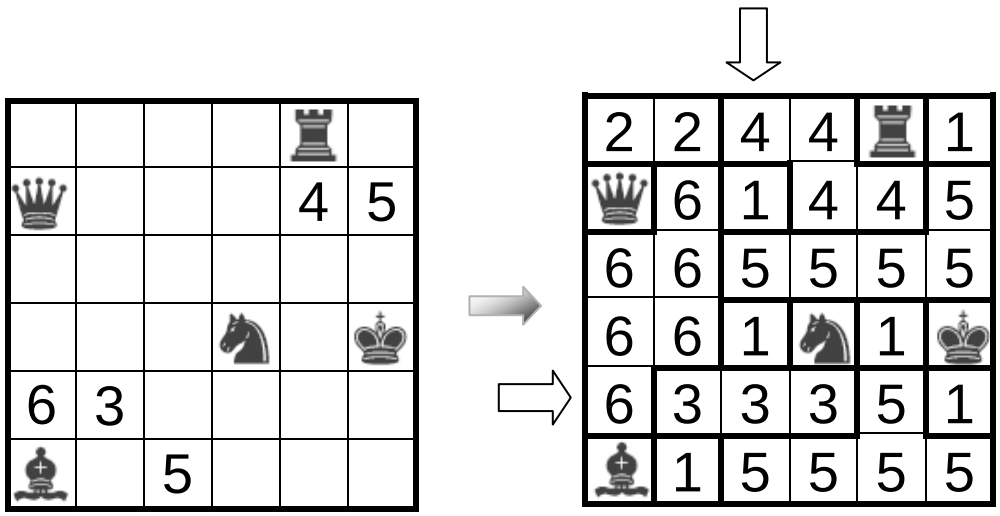
Draw a snake into the diagram, 45 cells long (19 in the example), not touching itself even diagonally. The head and tail of snake are already given (1 and 45). **Each chess piece attacks some of the parts of snake body. The sum of attacked numbers for each chess piece is shown next to the grid.** The snake cannot cross through the cells with chess pieces.



Answer key: Enter the content of the marked row, follow the content of the marked column. Use „x„ for the empty cells. For the given example the answer would be: 32x121314, xx101112x.

8. FILOMINO CHESS

Write a number into each square of the grid. Fields with same numbers must form horizontal and vertically connected ranges, which consist of as many fields as the number indicates. Two different, horizontal or vertically adjacent ranges may not have the same size. **Each chess piece attacks exactly two digits 1.**

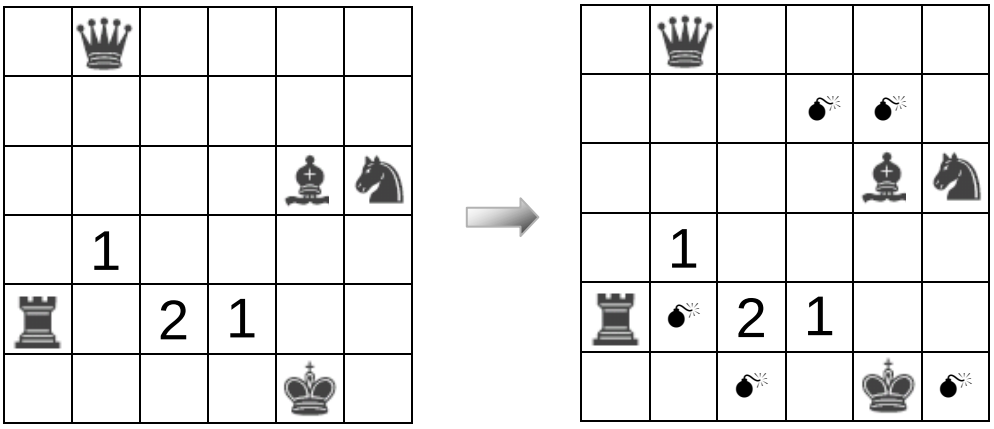


Answer key: Enter the content of the marked row, follow the content of the marked column. For the given example the answer would be: 633351, 415135.

9. CHESS SWEEPER

Place the 15 mines (5 in the example) into empty cells in the grid such that the numbers in the grid represent the number of mines in the neighboring cells, including diagonal ones. **Each chess piece attack exactly 1 mine.**

Note: A mine could not cover another one for queen's, rook's or bishop's movement.

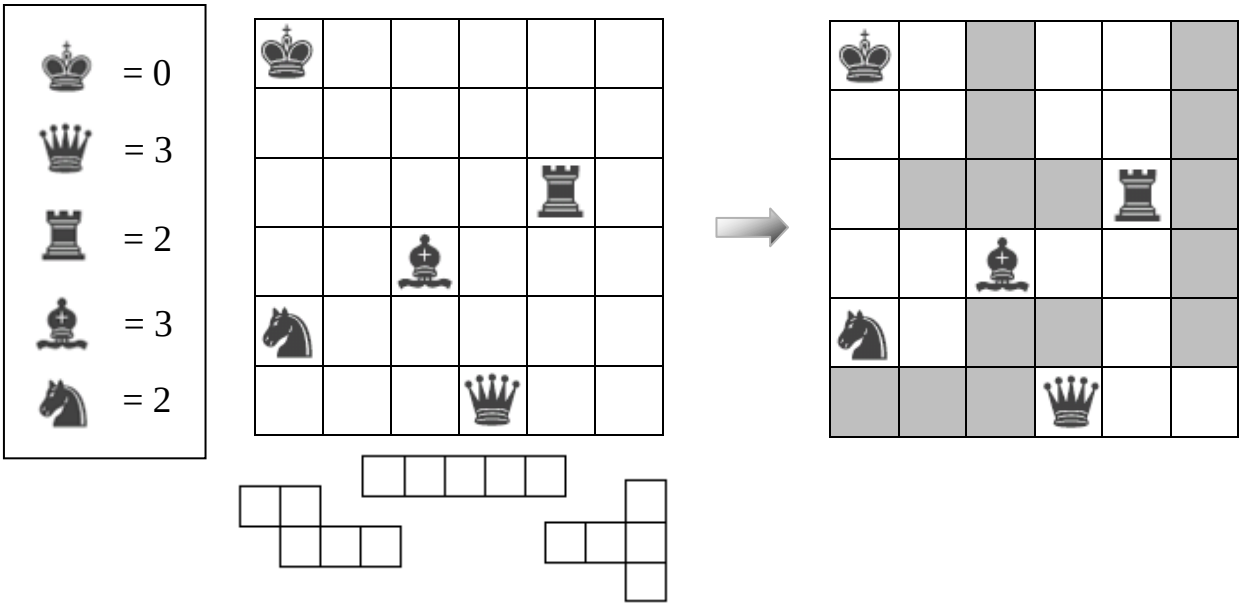


Answer key: Enter the number of mines in each row, starting from the top row. For the given example answer would be: 020012.

10. PENTA CHESS

Place all 12 different pentominoes (3 in the example) into the grid. Elements cannot touch each other, even diagonally and they may be rotated and/or mirrored. **Each chess piece attacks some pentominoes. The total number of attacked different pentominoes (not cells) for each chess piece is shown next to the grid.** Elements cannot be placed to the cells with the chess pieces.

Note: A pentomino could not cover the another one for queen's, rook's or bishop's movement.



Answer key: Enter the number of pentomino cells in each row, starting from the top row. For the given example answer would be: 224133.

SPECIAL THANKS TO:

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