



INSTRUCTION BOOKLET

1. RHOMBIC DOMINOES	135 pt
2. BATTLESHIPS	165 pt
3-4. PENTOMINOES	135, 210 pt
5-7. NUMBERGRAM	65, 100, 155 pt
8. MY LOOP	45 pt
9. THREE-COLOUR MASYU	55 pt
10. MASYU WITH TIPS	185 pt
11. C-U-P-C-U-P...	60 pt
12. EASY AS HEAD	180 pt
13-14. EASY AS MEAN	135, 195 pt
15. PALINDROME SNAKE	80 pt
16. EASY AS PALINDROME SNAKE	120 pt
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TOTAL	2020 pt

TIME 130 minutes

BONUS 16 points per each saved minute if all the puzzles are solved correctly

Puzzles by Riad Khanmagomedov

Thanks to Rakesh Rai, James McGowan and Igor Golovanov

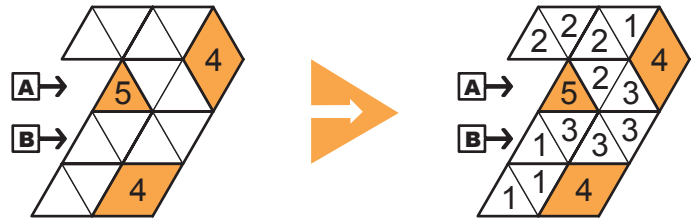
1. RHOMBIC DOMINOES

135 pt

A set of 21 rhombic dominoes from 1–1 to 6–6 (1-1 to 3-3 in the example) has been placed in the grid. Two halves having a common edge should have the same digit. A number in an orange figure shows the sum of digits in all the white triangles that share an edge with it.

Answer: Enter the contents of the marked rows from left to right.

Example Answer: 23, 1333.



2. BATTLESHIPS

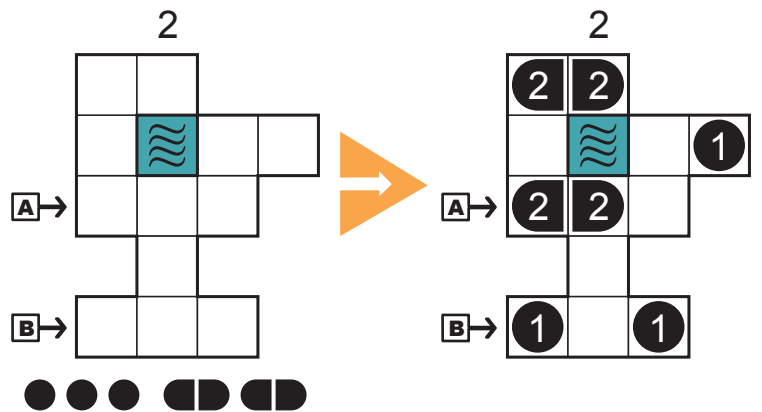
165 pt

Place the given set of ships into the white cells. Ships cannot touch each other, not even diagonally. Clues outside the grid show the number of cells occupied by ships in the corresponding row or column.

Ignore the coloured cell while solving.

Answer: Enter the contents of the marked rows from left to right, using "-" for seas and N for any ship segment where N is the size of that ship.

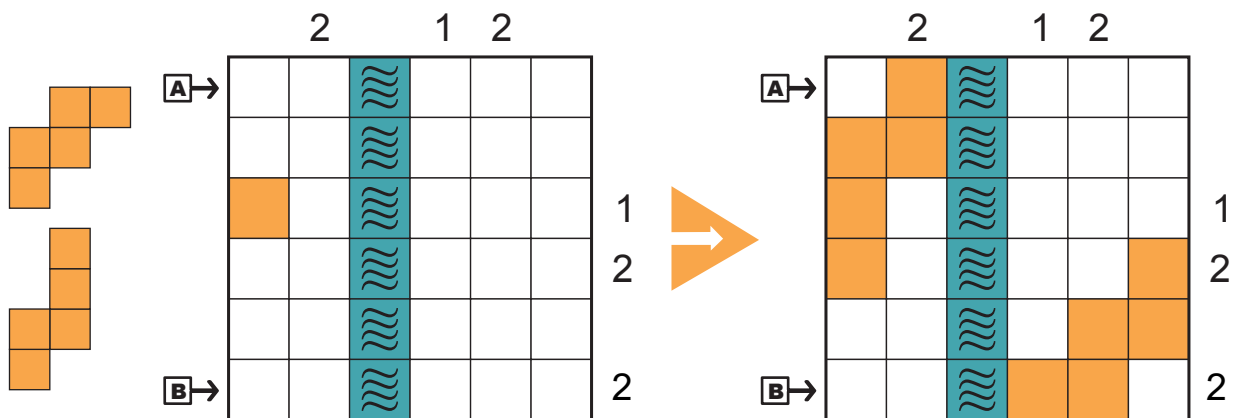
Example Answer: 22-, 1-1.



3-4. PENTOMINOES

135, 210 pt

Place the given set of orange pentominoes in the white cells. Pentominoes may be rotated and mirrored. They cannot touch each other, not even diagonally. Numbers outside the grid show how many cells are occupied by the pentominoes in corresponding directions. Some fragments of pentominoes are marked by orange. Ignore the aquamarine cells while solving.



Answer: Write the content of marked rows from left to right. Use P for cells which occupied by the pentominoes, "-" for each other cell.

Example Answer: -P----, ---PP-.

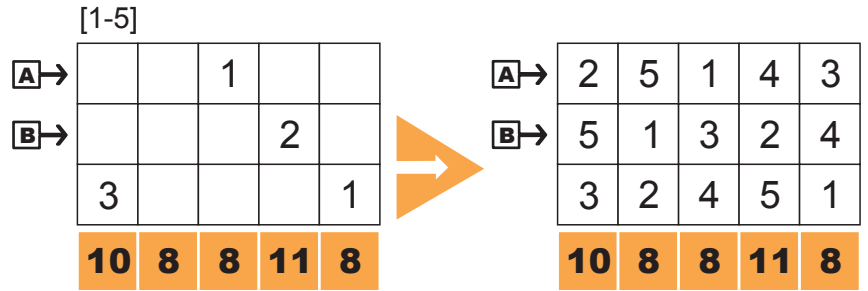
5-7. NUMBERGRAM

65, 100, 155 pt

Fill the grid with digits from 1 to N. Digits cannot repeat in any row or column. Each number outside the grid shows the sum of all digits in the corresponding column.

Answer: Enter the contents of the marked rows from left to right.

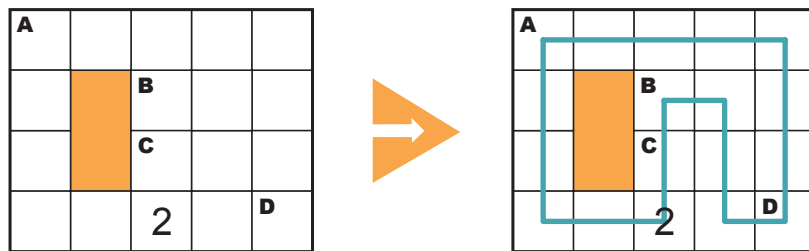
Example Answer: 25143, 51324.



8. MY LOOP

45 pt

Draw a single loop, visiting all white cells, using only horizontal and vertical lines between the centres of white cells such that the loop does not cross itself or visit any cell more than once. The loop makes a 90° turn in each cell with a digit. This digit shows the length of each of the loop segments which form the turn.



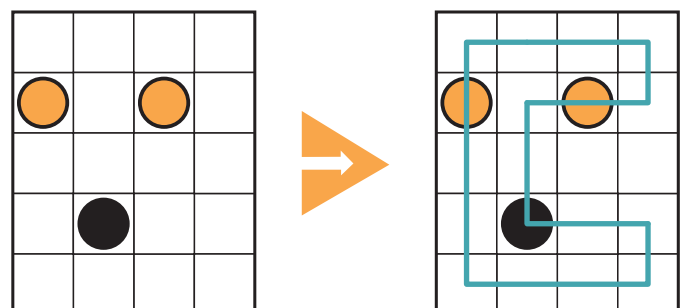
Answer: Starting at A and traveling clockwise around the loop enter the letters.

Example Answer: ADBC.

9. THREE-COLOUR MASYU

55 pt

Draw a single loop using only horizontal and vertical lines between the centres of some white cells such that the loop does not visit any cell more than once. At every cell containing a white circle the loop must pass straight through that circle and make a 90° turn in at least one of the cells adjacent to the circle. At every cell containing a black circle the loop must make a 90° turn and travel straight through both cells adjacent to the circle. The orange circle can have the properties of a white or a black circle.



Answer: Enter the number of turns of the loop.

Example Answer: 8.

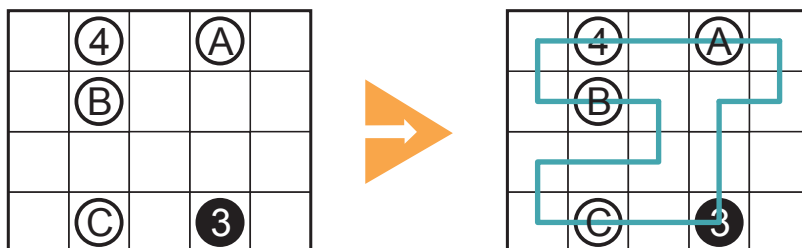
10. MASYU WITH TIPS

185 pt

Draw a single loop using only horizontal and vertical lines between the centres of some cells such that the loop does not visit any cell more than once. At every cell containing a white circle the loop must pass straight through that circle and make a 90° turn in at least one of the cells adjacent to the circle. At every cell containing a black circle the loop must make a 90° turn and travel straight through both cells adjacent to the circle. The number in a white circle shows the length of a segment crossing it. The number in a black circle denotes the length of at least one of the segments that make up the corner.

Answer: Starting at A and traveling clockwise around the loop, enter the order in which the letters are passed.

Example Answer: ACB.



11. C-U-P-C-U-P...

60 pt

Draw a line, starting from orange cell with C and visiting all cells with letters, using only horizontal and vertical lines between the centres of cells such that the loop does not cross itself or visit any cell more than once. Along the line must be read C-U-P-C-U-P...

Answer: Enter the number of turns of the line.

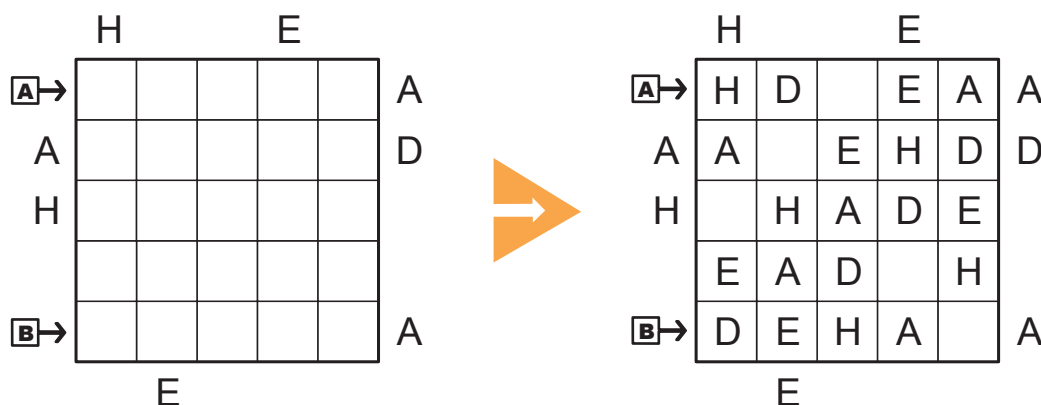
Example Answer: 4.



12. EASY AS HEAD

180 pt

Enter the letters H, E, A, D into the grid so that each row and column contains each letter exactly once. Some cells will remain empty. Letters outside the grid denote the first letter found in the corresponding row or column from that direction.



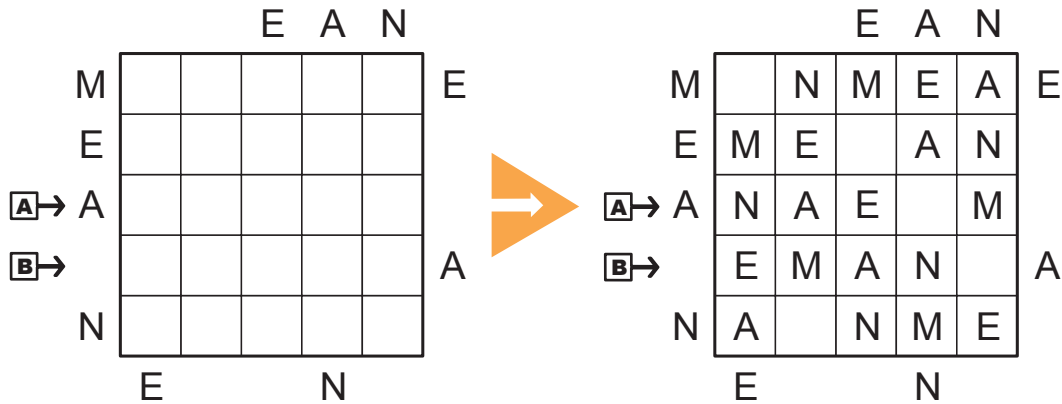
Answer: Enter the contents of the marked rows from left to right, using "-" for an empty cell.

Example Answer: HD-EA, DEHA-.

13-14. EASY AS MEAN

135, 195 pt

Enter the letters M, E, A, N into the grid so that each row and column contains each letter exactly once. Some cells will remain empty. Letters outside the grid denote the second letter found in the corresponding row or column from that direction.



Answer: Enter the contents of the marked rows from left to right, using "-" for an empty cell.

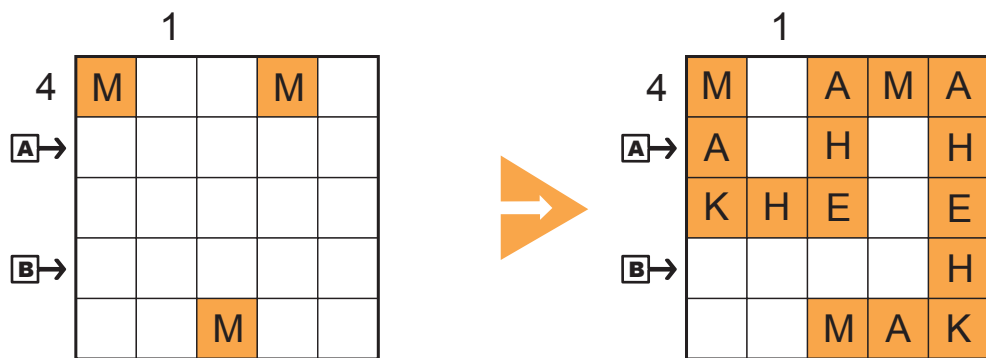
Example Answer: NAE-M, EMAN-.

15. PALINDROME SNAKE

80 pt

Draw a letter snake, that travels horizontally and vertically without touching itself. Some fragments are marked. Digits outside the grid indicate the amount of snake segments in corresponding directions. Along the snake write a given palindrome – a phrase, reading the same letter by letter from left to right and from right to left.

Author of palindrome – my father, poet Aydin Khanmagomedov (1946–2012).



MAK HE HAM, A HEHKAM*

*Translation from Russian into English:
THE POPPY IS NOT FOR US, BUT FOR NENETS WOMEN

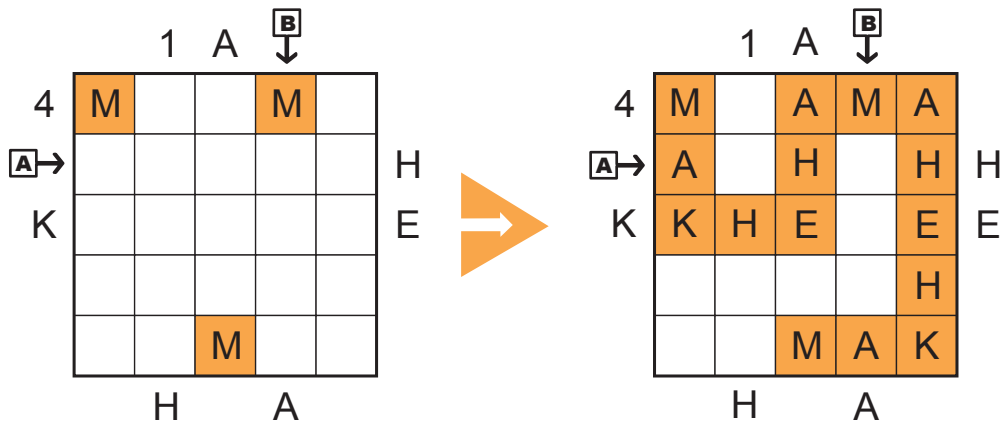
Answer: Enter the contents of the marked rows from left to right, using "-" for an empty cell.

Example Answer: A-H-H, ---H.

16. EASY AS PALINDROME SNAKE

120 pt

Draw a letter snake, 45 cells long (15 in the example), that travels horizontally and vertically without touching itself. Its head, tail and another fragment are marked. Along the snake must be written a palindrome – a set of letters, reading the same from left to right and from right to left. Digits outside the grid indicate the amount of snake segments in corresponding directions. Letters outside the grid denote the first letter found in the corresponding row or column from that direction.



Answer: Enter the contents of the marked row from left to right and column from top to bottom, using "-" for an empty cell.

Example Answer: A-H-H, M---A.