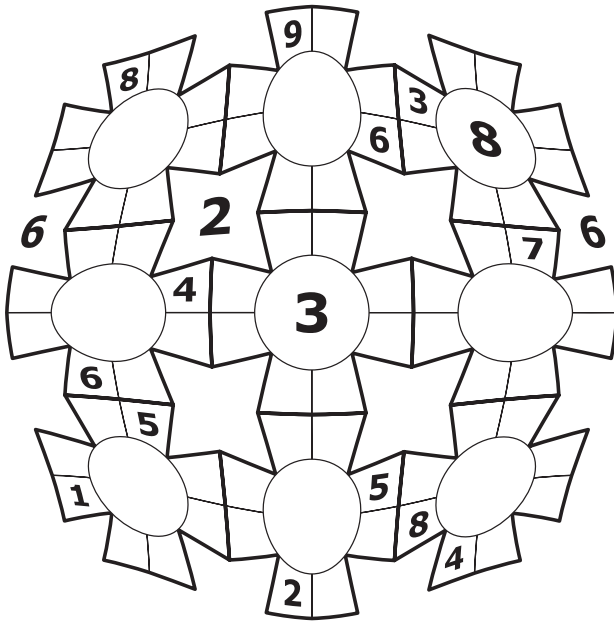


7. Sudokuball

6



Fill in the grid so that every row, column (six smaller cells and three bigger circles or stars), outlined figures (eight smaller cells and a bigger circle), nine bigger circles and nine bigger stars contain the digits 1 through 9. The grid is toroidal (note the "six" in one of the stars and the corner star torn into four pieces).

Answer key: write down the digits around the central "3" clockwise, starting with "1".

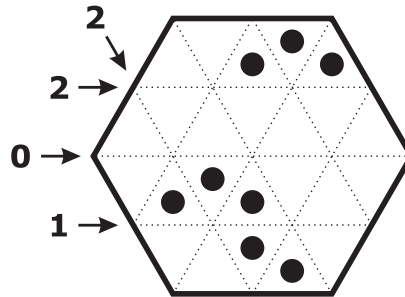
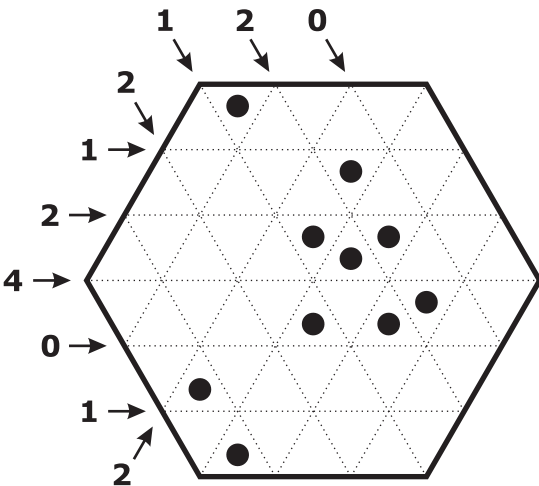
8. Round and round

6

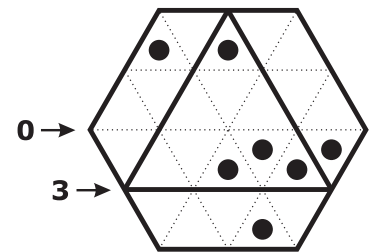
+ 4

Divide the grids along the gridlines into some pieces, so that the number of sides of each piece is equal to the number of black circles inside all the neighbouring pieces. Areas only sharing a corner are not neighbouring. Each piece must contain at least one black circle. Numbers outside the grids show the total length of dividing lines in corresponding direction.

Answer key: for each grid write down the areas of all pieces (in single triangles) in increasing order. For the example the answer would be: 5,5,5,9.



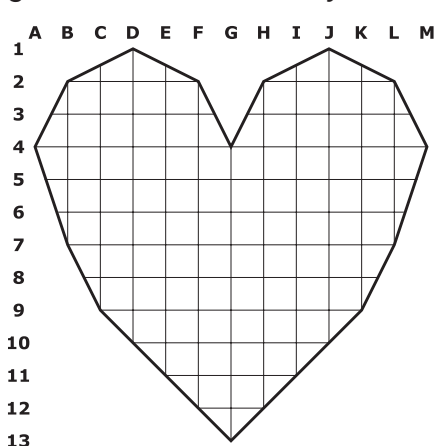
Example:



9. Heart of stone

≤ 4 x 2

Divide the given figure into some pieces, so that 3 (5 in the second variant) of them are identical (they can be rotated and/or mirrored) and have the largest possible area. Corners of all pieces must be on grid nodes. *Answer key: for each variant (first for three same pieces, and then for five)*



the area of the same pieces, and then describe any one of them by listing the corners' coordinates, in clockwise order. For the example the answer would be: 11: C2, G2, H3, H4, B4, B3; 6: E1, G2, H3, F4, E5. For each variant best answer brings 4 points; each next best answer will bring one point less.

Example:

