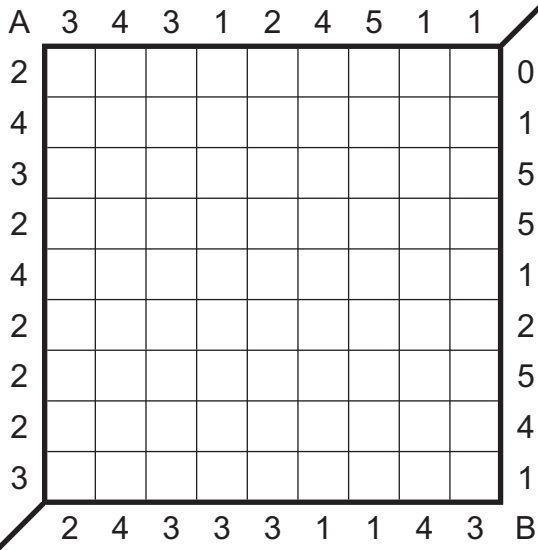


8. Double placement

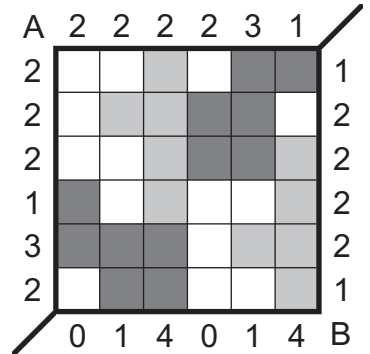
7



Place in grid some identical figures of free form, so that they don't touch each other, even by the corners. Figures can be rotated and/or reflected. Digits at the top and left show the number of cells occupied by figures in corresponding rows and columns. These figures are the set "A". Then place in the empty space some more figures, following the same rules, so that digits at the bottom and right show the number of cells occupied by the set "B".

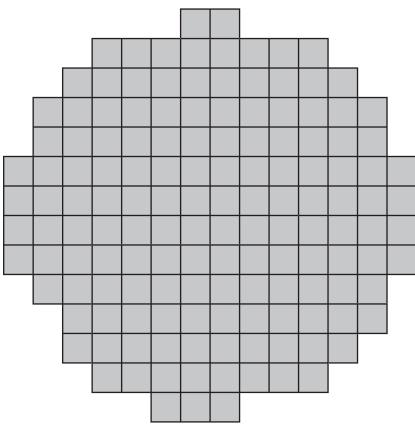
Answer key: describe the content of the diagonal, going from bottom left to top right corner, replacing empty cells by "-", and used cells by letters, corresponding to set. For example the answer would be: -ABAAA.

Example:



9. The square of the circle

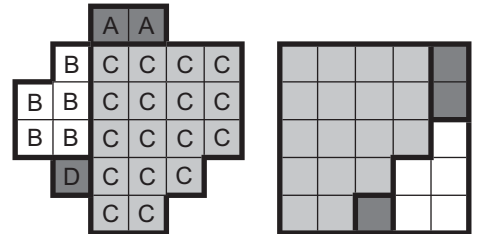
6



Divide this figure, hardly shaped like the circle, by the grid lines into the smallest possible number of pieces, so that they can form a square 12x12. The pieces can be rotated and reflected as needed.

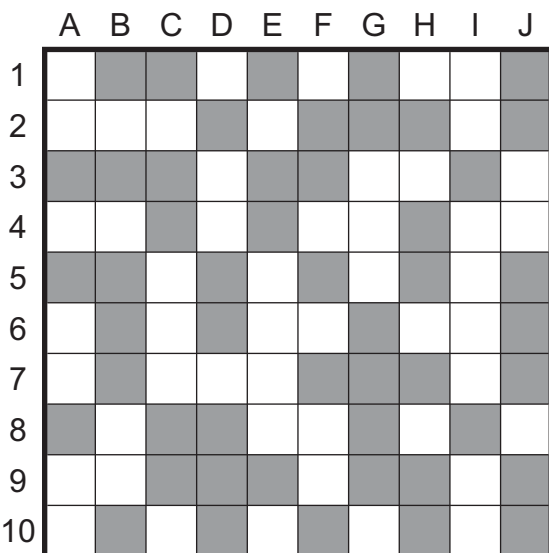
Answer key: describe the original figure, row by row, from top to bottom, replacing the cells, occupied with the same pieces, by the same letters. For example the answer would be: AA, BCCCC, BBCCCC, BBCCCC, DCCC, CC. Only the solution with the smallest number of pieces will bring 6 points.

Example:



10. Optimal route

8



Draw the longest route in the grid, that doesn't cross or retrace itself, so that it consists only of repeating colour sequences (e.g., GGWGW x5). You can move from cell to cell only by their common side. The sequence must be fully repeated at least three times. At the end of the route, the sequence need not be completely repeated.

Answer key: first write down the length of the route, and the starting point. Then describe the colour sequence, replacing white cells by "W"s, and grey cells by "G"s. For example the answer would be: 18: A2: WWGGG. Best answer brings 8 points; each next answer will bring one point less.

Example:

