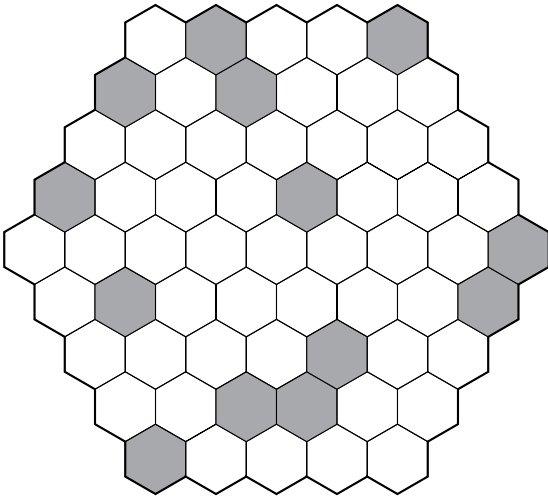


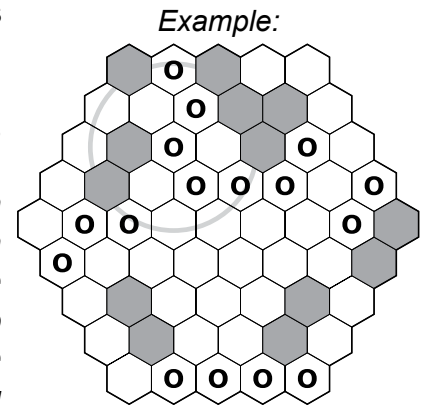
14. Tri-O

6



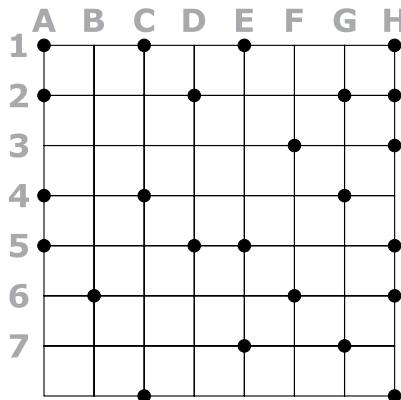
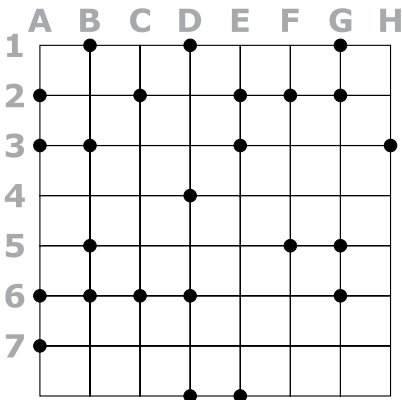
Fill some cells with letters "O", so that each "circle" consisting of 12 cells contain exactly three "O"s. Grey cells must stay empty.

Answer key: write down the contents of three main diagonals (starting from the one going from top left to bottom right, followed by the horizontal one and finishing with the one going from bottom left to top right), replacing empty cells with "-". For the example the answer would be: --OO---O, -OO----O-, -----O---



15. Different triangles

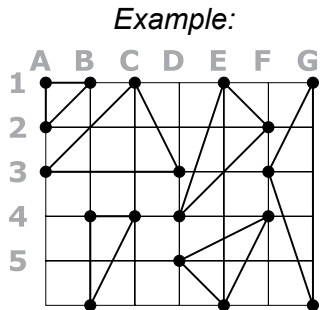
5 + 5



Dots in the grids are the vertices of eight triangles, all of different areas, from 0.5 to 4 square units. Triangles cannot overlap or even touch. Restore the triangles.

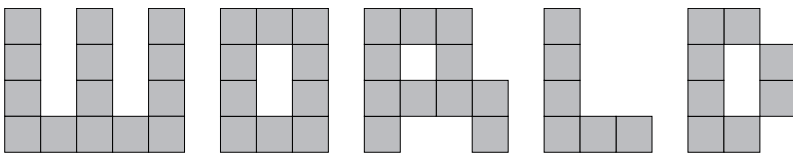
Answer key: write down the coordinates of top or top left vertex of all triangles

in order of increasing area. For the example the answer would be: A1,B4,F4,E1,G1,C1.



16. World Cup

≤ 4 x 2



In each grid blacken the fewest number of cells so that the figures of words WORLD (for larger grid) and CUP (for smaller grid) can be placed uniquely in the remaining space. Figures can be rotated, but not reflected. Figures cannot overlap.

Answer key: for each grid (larger first, then smaller), write the number of blackened cells and then their coordinates. For each grid best answer earns 4 points; each next best answer earns one point less.

