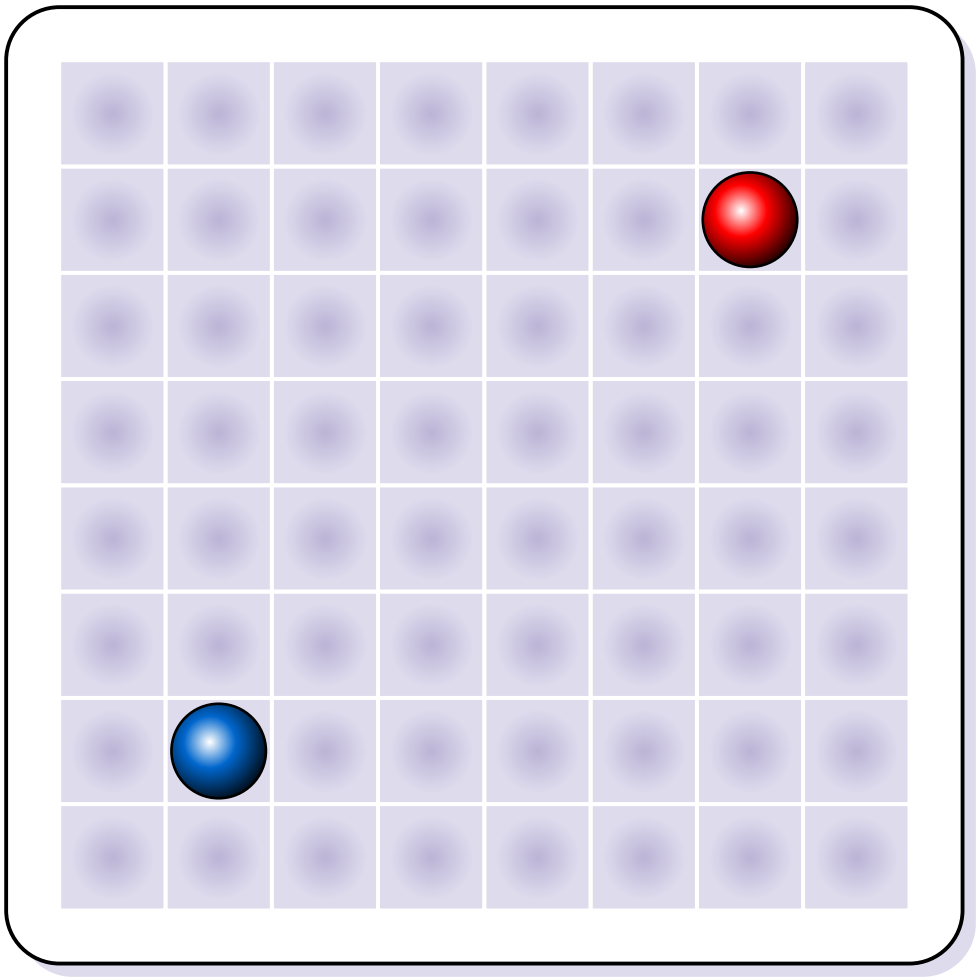
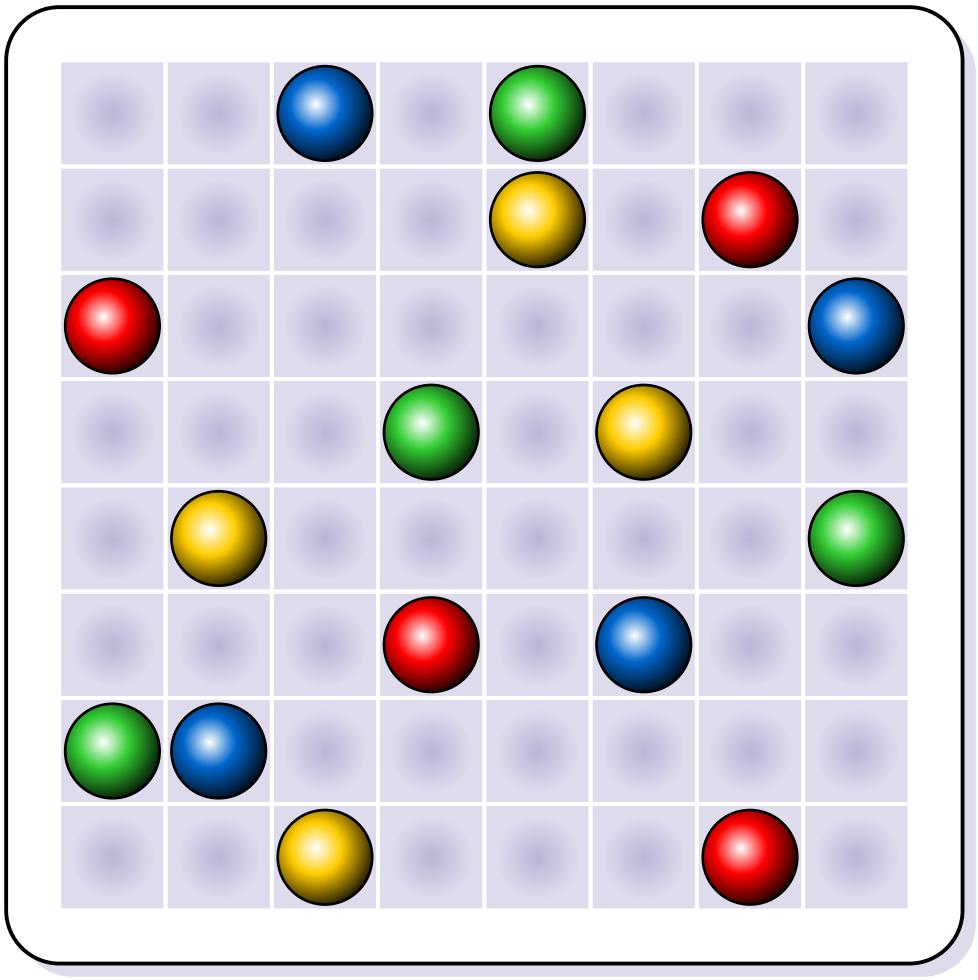
Pearls in the Grid 2

by Sam Loyd



Two balls are placed in the cells of the 8x8 grid as is shown. A straight line can be drawn through the centers of these balls. When a ball is added in the upper right corner of the grid then the same line would pass through the centers of three balls.

The object is to place as many new balls on the grid (a ball per cell) as possible in such a way that any straight line which can be drawn on the gird doesn't pass through the centers of three balls. Thus, it is not possible to place a ball in the upper right corner. What is the maximum number of balls which you can place on the grid observing this "no three in straight line" rule?



The solution is shown in the illustration. No any three balls are in a straight line.