1 - Fibonacci

The fibonacci sequence is a sequence of numbers in which the previous two numbers add to form the next number. The first two elements of the sequence are 0 and 1, generate the first 100 elements of this sequence.

For example, the first 5 elements would be: 0, 1, 1, 2, 3.

2 - Permutation find

You are given 3 letters: a, b and c. Your task is to find all permutations of this arrangement. The letters can be repeated.

Output on a newline for every permutation. Output a string of 3 letters on each line. For example, the first 3 lines for the output may be:

Output:
>aaa
>aab
>abb

3 - Square coordinates

Given 4 cartesian coordinates that represent a square on a cartesian plane, output the number of points with integer coordinates that lie within, or on the sides of the square.

The input is given in a 2x4 2D array denoting the x y coordinates of each point that makes up the square in a clockwise direction.

Output a single integer denoting the number of points.

For example:
Input:
>[[1,1],[1,-1],[-1,-1],[-1,1]]

Output:
>9 (4 vertices, 4 on the edges, 1 within)