

## Swan Ponds

You have an integer matrix representing a plot of land, where the value at that location represents the height above sea level. A value of zero indicates water. A pond is a region of water connected vertically, horizontally, or diagonally. The size of the pond is the total number of connected water cells. Write a method to compute the sizes of all ponds in the matrix.

Input: 0 2 1 0  
        0 1 0 1  
        1 1 0 1  
        0 1 0 1

Output: 2, 4, 1 (in any order)

(Green book page 184)