# Problem C: Cube on an Infinite Grid

A cube (which has its top face marked differently from the other faces) sits with the center of its bottom face at the origin on a grid of infinite size. The cube is moved by rolling it from lattice point to lattice point. The cube may only move orthogonally along the lattice points; i.e. each move changes either the x-coordinate or the y-coordinate of the cube's location by exactly 1.



You are given a destination set of coordinates (X,Y). You will roll the cube around on the grid until it reaches the destination square with the marked face on top. What is the minimum number of moves required to accomplish this?

## Input Specification:

The input begins with an integer  $T \leq 10000$ , the number of test cases. Following this are T lines with two integers on each line: X and Y, representing the coordinates of the goal point. Neither X nor Y exceed 1000000000 in absolute value.

#### Output Specification:

Output one integer per test case: the minimum number of moves to reach the goal square with the marked face of the cube on top.

## Sample Input:

2

0 3

4 4

# Sample Output:

5

8

One solution to the first test case is as follows: roll the cube right to (1,0), move it up three times to (1,3), and then one left roll to (0,3).