

Rectangle

Mirko needs to choose four points in the plane so that they form a rectangle with sides parallel to the axes. He has already chosen three points and is confident that he hasn't made a mistake, but is having trouble locating the last point. Help him.

Input

Each of the three points already chosen will be given on a separate line. All coordinates will be integers between 1 and 1000.

Output

Output the coordinates of the fourth vertex of the rectangle.

Sample Input 1

5 5

5 7

7 5

Sample Input 2

30 20

10 10

10 20

Sample Output 1

7 7

Sample Output 2

30 10