Problem D. Four Points

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

There is a rectangle in the xy-plane. Each edge of this rectangle is parallel to the x- or y-axis, and its area is not zero.

Given the coordinates of three of the four vertices of this rectangle, (x_1, y_1), (x_2, y_2), and (x_3, y_3), find the coordinates of the other vertex.

Constraints

- $-100 \leq x_i, y_i \leq 100$
- There uniquely exists a rectangle with all of (x_1, y_1), (x_2, y_2), (x_3, y_3) as vertices, edges parallel to the x- or y-axis, and a non-zero area.
- All values in input are integers.

Input

Input is given from Standard Input in the following format:

```
x1 y1
x2 y2
x3 y3
```

Output

Print the sought coordinates (x, y) separated by a space in the following format:

```
x y
```

Sample 1

Input	Output
-1 -1 -1 2 3 2	3 -1

The other vertex of the rectangle with vertices $(-1, -1)$, $(-1, 2)$, $(3, 2)$ is $(3, -1)$.

Sample 2

Input	Output
-60 -40 -60 -80 -20 -80	-20 -40