

# Problem B

## Forest for the Trees


**Problem ID:** forestforth

**CPU Time limit:** 1 second

**Memory limit:** 1024 MB

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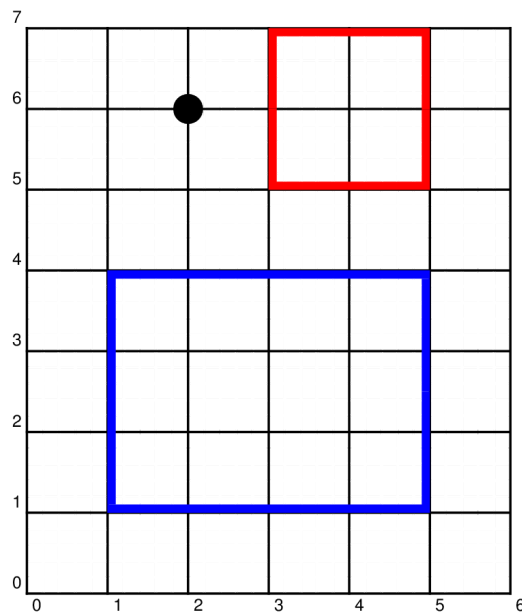
**Source:** Rocky Mountain Programming Contest 2011

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You are playing hide-and-go-seek in a forest with Belle. The forest has one tree at each of the positive integer lattice points. That is, there is a tree at every point  $(x, y)$  where  $x$  and  $y$  are both positive integers. You may consider each tree as a point. A logging company has cut down all of the trees in some axis-aligned rectangle, including those on the boundary of the rectangle.

You are standing at  $(0, 0)$  and Belle is standing at  $(x_b, y_b)$ . You can see Belle if and only if there is no tree blocking your line of sight to Belle. If there is a tree at  $(x_b, y_b)$ , Belle will make it easier for you to find her by standing on the side of the tree facing your location.

For example, suppose that Belle is standing at  $(2, 6)$ . If the trees in the rectangle with corners at  $(1, 1)$  and  $(5, 4)$  are cut down (blue rectangle in figure), then you can see Belle. However, if the rectangle was at  $(3, 5)$  and  $(5, 7)$  (red rectangle in figure), then the tree at  $(1, 3)$  would be in the way.



Given the rectangle and Belle's location, can you see her?

### Input

The first line of input contains two integers  $x_b$  and  $y_b$  ( $1 \leq x_b, y_b \leq 10^{12}$ ), which are the coordinates that Belle is standing on.

The second line of input contains four integers  $x_1, y_1, x_2$  and  $y_2$  ( $1 \leq x_1 \leq x_2 \leq 10^{12}$  and  $1 \leq y_1 \leq y_2 \leq 10^{12}$ ), which specify two opposite corners of the rectangle at  $(x_1, y_1)$  and  $(x_2, y_2)$ .

### Output

If you can see Belle, display **Yes**.

Otherwise, display **No** and the coordinates of the closest tree that is blocking your view.

#### Sample Input 1

```
2 6
1 1 5 4
```

#### Sample Output 1

```
Yes
```

#### Sample Input 2

```
2 6
3 5 5 7
```

#### Sample Output 2

```
No
1 3
```

Sample Input 3

830844890448 39710592053  
821266 42860 402207107926 423171345006

Sample Output 3

No  
402207964848 19223704203