# SAC '22 Code Challenge 3 Junior P2 - Normal Lines

Time limit: 1.0s Memory limit: 256M

Leo Zhuang, who just graduated elementary school, is working hard as always. This time, he has encountered a graphing problem:

Given a line segment from  $(x_1, y_1)$  to  $(x_2, y_2)$ , determine if the segment is parallel to either the x-axis or the y-axis.

If it is parallel to the x-axis, output x-axis; if it is parallel to the y-axis, output y-axis; if it is parallel to neither axis, output y-axis; if it is parallel to neither axis, output y-axis; if it is parallel to neither axis,

Can you determine this for him?

#### **Constraints**

$$-10^9 \le x_1, y_1, x_2, y_2 \le 10^9$$

Note that the coordinates of the points will not be identical.

#### **Input Specification**

The first line will contain the integer coordinates of the first point,  $x_1$  and  $y_1$ , respectively.

The second line will contain the integer coordinates of the second point,  $x_2$  and  $y_2$ , respectively.

#### **Output Specification**

Answer Leo's question: if it is parallel to the x-axis, output x-axis; if it is parallel to the y-axis, output y-axis; if it is parallel to neither axis, output neither.

#### Sample Input 1

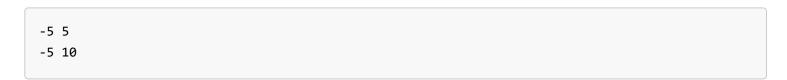
7 -2

-3 -2

### **Sample Output 1**

x-axis





## **Sample Output 2**

y-axis

# Sample Input 3

3 3 -3 -3

## **Sample Output 3**

neither