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 `neither`.

Can you determine this for him?

Constraints

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

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 Input 2

```
-5 5
-5 10
```

Sample Output 2

```
y-axis
```

Sample Input 3

```
3 3
-3 -3
```

Sample Output 3

```
neither
```