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## Sort a Vector R

**S98018\_en**

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A **vector R** is a vector that is composed of two parts:

$$v = x_1 \ x_2 \ x_3 \ x_4 \dots x_n \ y_1 \ y_2 \ y_3 \dots y_m$$

such that the part  $x_1 \dots x_n$  and the part  $y_1 \dots y_m$  are ordered strictly in increasing order but  $y_m < x_1$ . Furthermore, we have that  $n, m > 0$ . That is, neither part is empty.

We need to implement the **function** `void ordena(vector<int>& v, int pos)` with the following specification:

**PRE :**  $v$  is a vector R such that  $|v| \geq 3$ , and  $pos$  is the position of  $y_1$  in  $v$ .

**POST :** The vector  $v$  is sorted.

### Observation

You only need to send the function we ask for and the actions and functions that you define yourself. The rest will be ignored.

You cannot use the operation `sort` from the `stl` library.

Hint: knowing the position of  $y_1$  can help you sort the vector in linear time.

On the other hand, if you use an auxiliary vector to sort you will have a penalty of  $-5$  on manual correction even if you have a green traffic light.

### Input

An undetermined number of vectors R with the following format: an integer indicating their size, then the vector R and finally the position where  $y_1$  is located. Every vector R has a size greater than or equal to 3.

### Output

The sorted vector  $v$ .

#### Sample input 1

```
15
11 12 13 14 15 1 2 3 4 5 6 7 8 9 10
5
15
3 4 5 6 7 8 9 10 11 12 13 14 15 1 2
13

15
15 1 2 3 4 5 6 7 8 9 10 11 12 13 14
1

5
12 15 4 7 8
2
```

#### Sample output 1

```
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
4 7 8 12 15
```

## Problem information

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