# Best Team

There are n soldiers standing in a line. Each soldier is assigned a **unique rating value**.

Your task is to find the **best team** **of soldiers** (the team with the most soldiers) amongst them under the following rule:

* All soldiers of a team are sorted in **increasing** or **decreasing order**.

If several teams with equal length exist, find the **left-most** of them.

## Input

* You will receive a line with all soldiers separated by space.

## Output

* If there is a route from the start and back to it, print the length of the route.

## Constraints

* Ratings will be integers in the range [**0**…**1000**].
* The input will always be in valid format.
* The best team in increasing order and the best team in decreasing order will never have equal length.

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 2 5 3 4 7 | 2 3 4 7 |
| 2 5 4 3 7 2 1 4 | 5 4 3 2 1 |