

Find the Summit

You are given an array `a[]` with $M + N > 0$ elements in which the first $M \geq 0$ elements are in increasing order and thereafter the remaining $N \geq 0$ elements are in decreasing order. The total length of the array is equal to `len`, which is equal to $M + N$.

Find and return the value in the array whose value is greater than all those before it and greater than all those after it (i.e., the “summit” in `a[]`).

```
int find_summit(int a[], int len)
```

Files We Give You: A `makefile` and a sample main program (`summit.cpp`) to test your solution. The executable file created by a successful build will be named `summit`.

File You Must Submit: Place your solution code in a file named `solution.cpp`. This will be the only file that you submit.

Examples

Input: `a[] = {4, 8, 22, 63, 16, 1}, len = 6`

Returns: 63

Explanation: 63 is greater than all the numbers before it. 63 is greater than all the numbers after it.

Input: `a[] = {-11, -1, 2, 1}, len = 4`

Returns: 2

Explanation: 2 is greater than all the numbers before it. 2 is greater than all the numbers after it.

Input: `a[] = {-3, -1, 5, 7}, len = 4`

Returns: 7

Explanation: 7 is greater than all the numbers before it. There is nothing after 7.

Input: `a[] = {173}, len = 1`

Returns: 173

Explanation: There is nothing before or after 173.