

BATMAN2

" Alfred: *I'll get this to Mr. Fox, but no more. I've sewn you up, I've set your bones, but I won't bury you. I've buried enough members of the Wayne family.* "

After being promised the software to erase her criminal record, Catwoman agrees to take Batman to Bane. They manage to defeat all of BANE's men but ended up heading into a MAZE trap . BANE would call this maze as the LIS MAZE . He would hide himself in one of the rooms .Each of these rooms have a number(tag) associated with it. The speciality of the maze is that once you enter any room it will only lead you to rooms with a higher tag in the direction you move . BATMAN and Catwoman decide to move in opposite directions trying their luck to maximize the number of rooms they search . (They can start with any room , need not be the same)

" **Catwoman** : *Never steal from someone you can't outrun, kid.* "

Input

t , number of testcases

n , number of rooms

n integers giving the tag associated with the rooms

Output

The maximum number of rooms searched.

Constraints :

$1 \leq n \leq 100$

Example

Input:

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1
6
5 3 4 6 1 2
```

Output:

5