

# DOMjudge sample problem

## boolfind – ‘Boolean switch search’



### Problem description

We have a very long array of boolean values, and it is known that the first value is **true** and the last value **false**. You are asked to search for a position in the array where a true value is succeeded by false.

The input is as follows. The first line contains one integer: the number of testcases. Then follows for each testcase a number  $2 \leq n \leq 10^9$ , the length of the zero-indexed array. After that, the input depends interactively on your program’s output. When you output a single line ‘**READ**  $x$ ’ with  $x$  an integer between 0 and  $n - 1$ , a line containing either **true** or **false** will be returned, specifying the value at position  $x$  in the array. When you output a single line ‘**OUTPUT**  $x$ ’, then this is taken as the answer of the position which has value **true** and is followed by **false** and the next testcase will be given.

### Sample input/output

The input box contains the input, but additionally, after the array length, a line containing all values of the array with booleans represented by 0 and 1. The input (and output) after that is a sample interactive session.

| Input                                | Output                       |
|--------------------------------------|------------------------------|
| 1<br>5<br>1 1 0 1 0<br>false<br>true | READ 2<br>READ 1<br>OUTPUT 1 |