

Search an Element in an Array

Easy  40/40 Average time to solve is 15mContributed by [Arindam](#)

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Problem statement

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You have given a sorted array 'A' of 'N' integers.

Now, you are given 'Q' queries, and each query consists of a single integer 'X'. Your task is to check whether 'X' is present in array 'A' or not for each query. If 'X' exists in array 'A', you need to print 1 else print 0.

Note :

The given array is sorted in non-decreasing order.

Detailed explanation (Input/output format, Notes, Images)

Constraints:

 $1 \leq T \leq 10$ $1 \leq N \leq 10^5$ $-10^9 \leq A[i] \leq 10^9$ $1 \leq Q \leq 10^4$ $-10^9 \leq X \leq 10^9$

Where 'T' represents the number of test cases, 'N' represents the size of the array, 'A[i]' represents the elements of the array, 'Q' represents the number of queries and, 'X' denotes the number to be searched.

Time limit: 1 sec

Sample Input 1:

```
1
5
1 3 5 7 8
2
5
2
```

Sample Output 1:

```
1 0
```

Explanation for sample input 1:

For the first test case, the given array A is [1, 3, 5, 7,8].

So the answer for the given first query is 1 as 5 is present in the array.

For the second query answer is 0 as 2 is not present in the array.

Sample Input 2:

```
1
6
1 2 2 3 4 10
3
5
7
2
```

Sample Output 2:

```
0 0 1
```

Explanation for sample input 2:

For the first test case, the given array A is [1, 2, 2, 3, 4, 10].

So the answer for the given first query is 0 as 5 is not present in the array.

For the given second query answer is 0 as 7 is not present in the array.

For the given third query answer is 1 as 2 is present in the array.