

# Amazing Subset

Given an integer array A with N element. You have to find out how many amazing subset of A can be possible.

A set S is a subset of another set A if all elements of the set S are elements of the set A. In other words, the set S is contained inside the set A. The subset relationship is denoted as  $S \subset A$ .

A subset S called amazing subset, if product of all the element of subset is non-zero.

Assume S like that, S[1], S[2], S[3], S[4]..... S[n]

If is non-zero, then it's called amazing subset.

And an empty set is not considered as an amazing subset.

## Input:

The first line of the input contains an integer T ( $T \leq 100$ ) denoting the number of test cases. Each test case contains an integer N ( $0 \leq N \leq 50$ ) which denotes the number of element in the array A. The next line contains space-separated N integers which are elements of the array A. All elements are in  $-10^9$  to  $10^9$  range.

## Output:

For each case, print the case number and the number of amazing subset.

## Sample:

Input	Output
2	
5	Case 1: 31
1 2 3 4 5	Case 2: 31
5	
-1 1 -2 -3 5	

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