

## B. Combination! Once Again

Time limit: 3s

Given  $n$  objects you'd have to tell how many different groups can be chosen if  $r$  objects are taken at time.

## Input

Input consists of 100 test cases. Each test case begins with two integers  $n$  ( $0 < n \leq 50$ ),  $m$  ( $0 \leq m \leq r$ ). The next line will contain the labels (numbers in the range 1 to  $n$ ) of the  $n$  objects you are to choose from. Two objects with the same label are considered equivalent. Then in the last line for that test case, you'd have  $m$  values for  $r$ . There will be a single space separating two consecutive numbers in line. Input is terminated by a test case where  $n = 0$ , you must not process this test case.

## Output

For each test case, print the test case number. And for each query number  $r$ , print the number of different groups that can be formed if  $r$  objects are taken from the given  $n$  objects. You can assume that for all input cases, the output will always fit in a 64-bit unsigned integer and ( $0 \leq r \leq n$ ).

## Sample Input

```
5 2
1 2 3 4 5
2 1
4 1
1 2 3 4
2
0 0
```

## Sample Output

```
Case 1:
10
5
Case 2:
6
```