Print count of all possible strings of length k

Given a list of characters and a positive integer k, count all possible strings of length k that can be formed from the given characters in the list. Assume that there will not be duplicate characters in the list.

Try to find a formula that will help you to calculate the count instead of generating all the combinations and then counting them. Once you have that formula, implement it recursively.

Let's understand the significance of each line in the sample test cases. Each sample input/output example consists of 2 lines for input and 1 line for output. The 1st line will be to accept a list of characters separated by space. All these inserted values will become elements in the list. After accepting all the values in the list, the next line will accept value k.

The next line will be the output line that will give count of all possible strings of length k.

Test Case - 1

A B C D

2

12

Test Case - 2

1 2 3 4

3

24

Test Case - 3

P Q R S T U

4

360