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Number Plates

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The Traffic department controls the issuance of number plates to vehicle owners in Saudi Arabia. The traffic department generates these number plates that can be collected by the owners at the traffic police department.

Recently the traffic department has started the "Customize Number plate" campaign. Citizens can generate custom number plates and have it produced by the traffic department for a fee. In order to streamline the process, the traffic department has listed guidelines for citizens to suggest a plate number. Each plate consists of two categories, alphabet and numerals. The alphabet size is three characters, numeral size is upto four literals (numbers), these must be chosen from the following list.

As there can be many possibilites and combinations of number plates, the traffic police has tasked you to help the citizens.

You decided to write a program that would read the alphabets and numerals a citizen desires in his/her number plate. Your program determines how many different possibilities exist for the chosen alphabet and numerals for the selected input, and displays it on the console.

Input Format

The first line consists of a String Alphabet of size N.

The second line consists of a String Numeral of size M.

The third line consists of a integer value X; X is the length of the Numeral part of the number plate.

Constraints

0

0

0

A character in any of the two input strings will not be repeated. i.e. "ABC" is a valid string, however "AAB" is invalid.

Output Format

A single integer displaying the number of possibilites for the input provided. For any invalid value, the program prints -1

Sample Input 0

```
AB
013
2
```

Sample Output 0

```
17
```

Explanation 0

String Alphabet is "AB" with N = 2 String Numeral is "013" with M = 3 The value of X is 2.

This input will create the following possibilities

Category Alphabet: AAA AAB ABA ABB BAA BAB BBA BBB

Category Numerals: Since X is 2, these are the possibilities for string "013" 00 01 10 11 03 30 33 13 31

So Total combinations are 8 + 9 = 17 17 will be printed on console.

Sample Input 1

```
ABA
19
2
```

Sample Output 1

```
-1
```

Explanation 1

Sring "ABA" is invalid because A is repeated twice.

Contest ends in 6 hours

Submissions: 16
Max Score: 25
Difficulty: Easy

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More

Java 7 ⌄   ⛶ | ⚙

```java
1  import java.io.*;
2  import java.util.*;
3  import java.text.*;
4  import java.math.*;
5  import java.util.regex.*;
6
7  public class Solution {
8
9      public static void main(String[] args) {
10         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11     }
12 }
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code