

Longest sub-string with N unique characters

The program must find the length L of the longest sub-string with N unique characters in a given string value S.

Input Format:

The first line will contain the string value S.

The second line will contain the number of unique characters N.

Boundary Conditions:

$3 \leq S \leq 200$

$N \leq 1 \leq 10$

Output Format:

Length L of the sub-string longest sub-string with N unique characters.

Example Input/Output 1:

Input:

abcccdabccdef

2

Output:

4

Explanation:

The longest possible substring with 2 unique characters in abcccdabccdef is ccdc whose length is 4.

Example Input/Output 2:

Input:

manager

3

Output:

4

Explanation:

The longest possible substring with 3 unique characters in manager is either mana or anag whose length is 4.

Example Input/Output 3:

Input:

aaaaaaaaaaaa

1

Output:

12

Explanation:

The longest possible substring with 1 unique character in aaaaaaaaaaaa is aaaaaaaaaaaa itself which is 12.