Maximum Value Combination (MVC)

Time Limit: 1 s
Memory Limit: 256 MB
Difficulty: Easy

Description

You are given a number. Your task is to find the largest number combination with a certain number of digits from the given number. You are allowed to take certain digits from the number as long as the numbers taken are sequential digits. From the taken number, you can also change the position of each digit. You as a programmer, Write a program to solve this problem!
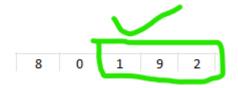
For example, if you have number of 80192 , and you have to take 3 digits of number combination as below:

You are not allowed to take 3 digits number from the given number that's not in sequencing index. You only allowed to take 3 digits number with sequencing indices.

So, the right answer is 3 digits number on the last indices which is 192. Also, after you take the 3 digits number, you are allowed to make a combination of that number to get the maximum value. In this case, you can have combinations such as: 192, 129, 291, 219, 921, & 912. From those combinations, the largest number is 921.

Input

- The first line is **NUM** which represents the number
- The second line is **DIGITS** which represents the number of digits you can get from **NUM**

Output

- Print the maximum number combination you can get from **NUM** with **DIGITS** digit.

Constraints (LOOK CAREFULLY!)

$0 \leq$ **NUM** $\leq 18,446,744,073,709,551,615$
$0 <$ **DIGITS** $\leq digits\ of$ **NUM** ≤ 20
CONSIDER THE EDGE CASES!

Examples

#1

Input
1024 2
Output
42

#2

Input
19654 3
Output
965

#3

Input
211809341 5
Output
98430

Explanation

#1
From `1024`, you can take a lot of combination of 2 digits number such as:
`10`, `20`, `24`, & `42`. You have to take the largest number which is **42**

#2
From `19654`, we get 3 digits number combination such as:
`196, 169, 961, 965, 956, 569, 596, 654, etc…`
From those combinations, we can take **`965`** `as the largest 3 digits number`

#3
From all combinations of 5 digits number in **NUM** we can take numbers at `211`**`809341`**
(Bold) which will be formed to be **`98430`** as the largest value