

Problem D. Pasha Maximizes

Time limit 1000 ms

Mem limit 262144 kB

Pasha has a positive integer a without leading zeroes. Today he decided that the number is too small and he should make it larger. Unfortunately, the only operation Pasha can do is to swap two adjacent decimal digits of the integer.

Help Pasha count the maximum number he can get if he has the time to make at most k swaps.

Input

The single line contains two integers a and k ($1 \leq a \leq 10^{18}$; $0 \leq k \leq 100$).

Output

Print the maximum number that Pasha can get if he makes at most k swaps.

Sample 1

Input	Output
1990 1	9190

Sample 2

Input	Output
300 0	300

Sample 3

Input	Output
1034 2	3104

Sample 4

Input	Output
90900000078001234 6	99070000008001234