itertools.combinations_with_replacement()

itertools.combinations_with_replacement(iterable, r)

This tool returns r length subsequences of elements from the input iterable allowing individual elements to be *repeated more than once*.

Combinations are emitted in lexicographic sorted order. So, if the input iterable is sorted, the combination tuples will be produced in sorted order.

Sample Code

```
>>> from itertools import combinations_with_replacement
>>>
>>> print list(combinations_with_replacement('12345',2))
[('1', '1'), ('1', '2'), ('1', '3'), ('1', '4'), ('1', '5'), ('2', '2'), ('2', '3'), ('2', '4'), ('2', '5'), ('3', '3'), ('3', '4'),
('3', '5'), ('4', '4'), ('4', '5'), ('5', '5')]
>>>
>>> A = [1,1,3,3,3]
>>> print list(combinations(A,2))
[(1, 1), (1, 3), (1, 3), (1, 3), (1, 3), (1, 3), (1, 3), (3, 3), (3, 3), (3, 3)]
```

Task

You are given a string S.
Your task is to print all possible size k replacement combinations of the string in lexicographic sorted order.

Input Format

A single line containing the string S and integer value k separated by a space.

Constraints

$0 < k \leq len(S)$
The string contains only *UPPERCASE* characters.

Output Format

Print the combinations with their replacements of string S on separate lines.

Sample Input

```
HACK 2
```

Sample Output

```
AA
AC
AH
AK
CC
CH
CK
HH
HK
KK
```