itertools.combinations_with_replacement()

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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
```

Author	DOSHI
Difficulty	Easy
Max Score	10
Submitted By	16386

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Sample Output

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

Current Buffer (saved locally, editable) Python 3

```
1 from itertools import combinations_with_replacement
2 s,n=input().split()
3 print(*[''.join(i) for i in
  combinations_with_replacement(sorted(s),int(n))],sep='\n')
```

Line: 1 Col: 52

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Next Challenge

Testcase 0 Testcase 1 Testcase 2 Testcase 3

6 Testcases

Input (stdin) Download

```
HACK 2
```

Expected Output Download

```
AA
AC
AH
AK
```

Compiler Message

```
Success
```