Q7: A Subset By Any Other Name

Given a set of *n* consecutive capital letters, "ABCDE…" and an integer $1 \le p \le n$, you are to output in alphabetic order all possible different subsets of size *p*. For example, given *n=4* (i.e., "ABCD") and *p=2*, there are 6 possible different subsets as shown in the adjacent table.

Different Subsets for n=4 and p=2
AB
AC
AD
BC
BD
CD

It is known that the number of different subsets of size *p* drawn from a base set of size *n* is $\frac{n!}{p!(n-p)!}$. In this example, this computes as $\frac{4!}{2!2!}$ or 6.

Input

The first line of input will be an integer on a line by itself representing the number of letters in the set, *n*. The second line of input will be an integer on a line by itself representing the size of the subsets, *p*. You can be assured that $1 \le p \le n \le 10$.

Output

The output will contain a number of lines, each of which contains a string of *p* characters in alphabetic sorted order, representing a subset drawn from the *n* letters in the original set. In addition, the entire output must appear in alphabetic sorted order as shown in the Sample Input and Output below.

Sample Input and Output

Input	Output
4 1	A B C D
5 3	ABC ABD ABE ACD ACE ADE BCD BCE BDE CDE
3 2	AB AC BC
5 5	ABCDE