C1 – Triangles

Read in a letter and a number. The number indicates how big the letter triangle should be. The number indicating the size of the triangle will have a range from 0 to 250 (i.e., num $\geq$ 0 and num $\leq$ 250). The letters must wrap around from Z to A. If you start with Z and have to print 5 levels, you must wrap around and start with A after the Z level is complete.

Input

Each data set will contain one letter and one number. All letter input will be uppercase.

Output

Print out the letter triangles in the order given.

Example

Input:
3 Z

Output:
Z
AA
BBB

Input:
4 C

Output:
C
DD
EEE
FFFF