Problem 6 - Just Reversing the String?

In this problem, you have two simple tasks: reverse and switch the case of the input string.

Input

Input will consist of a series of lines consisting 1 to 128 characters and it is terminated by EOF.

Output

Before printing it out, you are asked to reverse to string and convert the upper character to lower, and vice versa.

Sample Input

b%aAa b%aAa

Sample Output

AaA%B AaA%B