A. Hello, World?

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"Hello, World!" is commonly used example to express how does the language work, the syntax behind it and also demonstrate the I/O capability that build in the languages itself. How about we write a code to print the "Hello, World!" string?

Oh…. there is a catch, everytime you encounter string "Hello", reverse it and put exclamation mark on the next word. Easy right?

Input

First line will be an integer 'n', which represent the number of cases, followed by 'n' number of strings. Length of the string will be $5 <= length(s) <= 100$.

Output

The 'n' string of transformed string, as shown in the example input.

Sample Input/Output

Input	Output
3	
Hello World hello World	olleH World! hello World
Morning everyone! Have you say Hello, World?	Morning everyone! Have you say olleH, World!?