

Multiplication Improvement

Time limit: 2.0s **Memory limit:** 64M

zxy has improved significantly in computer science. On the other hand, he hasn't improved as much in math. Especially multiplication.

He cannot understand an expression if the numbers are not in increasing order. For example, he can understand

`1x4x7x9` but he cannot understand `9x4x7x1`.

Given an expression, help **zxy** understand the expression and calculate it.

Input Specification

The one and only line of input will contain a string S , whose length L is ($1 \leq L \leq 39$), containing a sequence of one digit numbers and the character `x`.

Output Specification

The first line of output should be the expression in a way that **zxy** can understand.

The last line of output will be the solution to the expression.

The output will always be under $2^{64} - 1$.

Sample Input 1

```
5x4x9
```

Sample Output 1

```
4x5x9
180
```