

759 The Return of the Roman Empire

Write a program that accepts Roman numerals and converts them to decimal form.

Input

You will be given a number of cases of Roman numerals, one per line.

Remember, I=1, V=5, X=10, L=50, C=100, D=500, and M=1000. Furthermore, there are the following digraphs: IV=4, IX=9, XL=40, XC=90, CD=400, CM=900.

Output

For each test case, write to the decimal form of the corresponding on a line by itself.

The program should reject improperly formed numerals, writing 'This is not a valid number'.

Sample Input

```
MCMXCVIII  
CCM
```

Sample Output

```
1998  
This is not a valid number
```