

Roman Numeral Translator

Program Name: roman.java

Input File: roman.dat

You are to write a program that reads in Roman numerals and determines its integer equivalent.

Roman numerals are based on letters where letters have the following values:

M = 1000
D = 500
C = 100
L = 50
X = 10
V = 5
I = 1

To translate a given number from Roman numerals to its decimal equivalent, the values of the letters are added from left to right. If a letter of lower value is immediately to the left of a letter of higher value, they are treated as a single unit with value equal to the value of the higher letter minus the value of the lower letter. No letter will ever have a lower letter immediately to the left and a higher letter immediately to the right or it would be ambiguous which letters were subtracted. For instance, IVX is not valid. There are other rules governing the use of Roman numerals, but they do not have to be known to perform the translation to decimal.

Input

The input will consist of 1 to 20 data sets. Each data set will consist of a string of letters that correspond to a Roman numeral. The max Roman numeral value will be MMM (3000), and no input value will contain more than 20 letters.

Output

For each data set, an integer corresponding to the Roman numeral will be printed, each on a separate line.

Example Input File

III
XIV
CCLXXXIX

Example Output To Screen

3
14
289