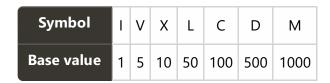
### CCC '12 S2 - Aromatic Numbers

#### Canadian Computing Competition: 2012 Stage 1, Senior #2

This question involves calculating the value of *aromatic* numbers which are a combination of Arabic digits and Roman numerals.

An aromatic number is of the form ARARAR...AR, where each A is an Arabic digit, and each R is a Roman numeral. Each pair AR contributes a value described below, and by adding or subtracting these values together we get the value of the entire aromatic number.

An Arabic digit A can be 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9. A Roman numeral R is one of the seven letters I, V, X, L, C, D, or M. Each Roman numeral has a base value:



The value of a pair AR is A times the base value of R. Normally, you add up the values of the pairs to get the overall value. However, wherever there are consecutive symbols ARA'R' with R' having a strictly bigger base value than R, the value of pair A' must be subtracted from the total, instead of being added.

For example, the number 3M1D2C has the value  $3\times1000+1\times500+2\times100=3700$  and 3X2I4X has the value  $3\times10-2\times1+4\times10=68$ .

Write a program that computes the values of aromatic numbers.

#### **Input Specification**

The input is a valid aromatic number consisting of between 2 and 20 symbols.

#### **Output Specification**

The output is the decimal value of the given aromatic number.

### Sample Input 1

3M1D2C

## **Output for Sample Input 1**

3700

# Sample Input 2

2I3I2X9V1X

# **Output for Sample Input 2**

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