

## 13. Roman to Integer

451

1646

[Description \(/problems/roman-to-integer/description/\)](/problems/roman-to-integer/description/)[Hints \(/problems/roman-to-integer/hints/\)](/problems/roman-to-integer/hints/)[Submissions \(/problems/roman-to-integer/\)](/problems/roman-to-integer/)[Pick One \(/problems/random-one-question/\)](/problems/random-one-question/)

Roman numerals are represented by seven different symbols: I , V , X , L , C , D and M .

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

For example, two is written as II in Roman numeral, just two one's added together. Twelve is written as, XII , which is simply X + II . The number twenty seven is written as XXVII , which is XX + V + II .

Roman numerals are usually written largest to smallest from left to right. However, the numeral for four is not IIII . Instead, the number four is written as IV . Because the one is before the five we subtract it making four. The same principle applies to the number nine, which is written as IX . There are six instances where subtraction is used:

- I can be placed before V (5) and X (10) to make 4 and 9.
- X can be placed before L (50) and C (100) to make 40 and 90.
- C can be placed before D (500) and M (1000) to make 400 and 900.

Given a roman numeral, convert it to an integer. Input is guaranteed to be within the range from 1 to 3999.

**Example 1:**

Input: "III"  
Output: 3

**Example 2:**

Input: "IV"  
Output: 4

**Example 3:**

Input: "IX"  
Output: 9

**Example 4:**

Input: "LVIII"  
Output: 58  
Explanation: C = 100, L = 50, XXX = 30 and III = 3.

**Example 5:**

Input: "MCMXCIV"  
Output: 1994  
Explanation: M = 1000, CM = 900, XC = 90 and IV = 4.

Seen this question in a real interview before? ☐ Yes ☐ No

Difficulty:

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