import java.io.BufferedReader;  
import java.io.IOException;  
import java.io.InputStreamReader;  
  
public class RomanParser {  
 final public String one = "I";  
 final public String five = "V";  
 final public String ten = "X";  
 final public String fifty = "L";  
 final public String onehundred = "C";  
 final public String fivehundred = "D";  
 final public String onethousand = "M";  
  
 public int SubstractingValue1(int len, int sum, int a, int b){  
 System.*out*.println("SubtractingValue1 input sum: "+sum+" a: "+a+" b:"+b);  
 if(a < b){  
 sum= b-a;  
 }  
 return sum;  
 }  
 public int SubstractingValue2(int len, int sum, int a, int b){  
 if(a < b){  
 sum= b-a;  
 }  
 return sum;  
 }  
 public int SubstractingValue3(int len, int sum, int a, int b){  
 if(a < b){  
 sum= b-a;  
 }  
 return sum;  
 }  
 public int SubstractingValue4(int len, int sum, int a, int b){  
 if(a < b){  
 sum= b-a;  
 }  
 return sum;  
 }  
 public int SubstractingValue5(int len, int sum, int a, int b){  
 if(a < b){  
 sum= b-a;  
 }  
 return sum;  
 }  
 public int SubstractingValue6(int len, int sum, int a, int b){  
 if(a < b){  
 sum= b-a;  
 }  
 return sum;  
 }  
  
 public int AddingValue1(int len, int sum, int a, int b){  
 System.*out*.println("AddingValue1 input sum: "+sum+" a: "+a+" b:"+b);  
 if (a >= b){  
 System.*out*.println("summing possible");  
 sum = a + b;  
 }  
 else{  
 System.*out*.println("summing not possible");  
 }  
 System.*out*.println("AddingValue1 output sum: "+sum);  
 return sum;  
 }  
 public int AddingValue2(int len, int sum, int a, int b){  
 System.*out*.println("AddingValue1 input sum: "+sum+" a: "+a+" b:"+b);  
 if (a >= b){  
 sum = a + b;  
 }  
 return sum;  
 }  
 public int AddingValue3(int len, int sum, int a, int b){  
 if (a >= b){  
 sum = a + b;  
 }  
 return sum;  
 }  
 public int AddingValue4(int len, int sum, int a, int b){  
 if (a >= b){  
 sum = a + b;  
 }  
 return sum;  
 }  
 public int AddingValue5(int len, int sum, int a, int b){  
 if (a >= b){  
 sum = a + b;  
 }  
 return sum;  
 }  
 public int AddingValue6(int len, int sum, int a, int b){  
 if (a >= b){  
 sum = a + b;  
 }  
 return sum;  
 }  
 public int DecimalValue(String str){  
 int res = 0;  
 if(str!=null) {  
 switch (str) {  
 case one:  
 res = 1;  
 break;  
 case five:  
 res = 5;  
 break;  
 case ten:  
 res = 10;  
 break;  
 case fifty:  
 res = 50;  
 break;  
 case onehundred:  
 res = 100;  
 break;  
 case fivehundred:  
 res = 500;  
 break;  
 case onethousand:  
 res = 1000;  
 break;  
 case " ":  
 res = 0;  
 break;  
 default:  
 res = 0;  
 }  
 }  
 return res;  
 }  
 public String InputData() throws IOException {  
 System.*out*.println("Enter Roman Numeral:");  
 BufferedReader reader = new BufferedReader(new InputStreamReader(System.*in*));  
 String name = reader.readLine();  
 return name;  
 }  
 public boolean ValidateInputData(String str){  
 // I, V, X, L, C, D, and M,  
 boolean res = false;  
 int len = str.length();  
 for(int i = 0; i < len; i++){  
 String str2= String.*valueOf*(str.charAt(i));  
 switch(str2){  
 case one:  
 res = true;  
 break;  
 case five:  
 res = true;  
 break;  
 case ten:  
 res = true;  
 break;  
 case fifty:  
 res = true;  
 break;  
 case onehundred:  
 res = true;  
 break;  
 case fivehundred:  
 res = true;  
 break;  
 case onethousand:  
 res = true;  
 break;  
 case " ":  
 res = true;  
 break;  
 default:  
 res = false;  
 }  
 }  
 return res;  
 }  
 public int ParseData(String str) {  
 // I, V, X, L, C, D, and M,  
 int len = str.length();  
 char[] str2 = str.toCharArray();  
 String[] str3 = new String[len+1];  
 int[] intar = new int[len+1];  
 for (int i = 0; i < len; i++) {  
 str3[i] = String.*valueOf*(str2[i]);  
 intar[i] = DecimalValue(str3[i]);  
 }  
 int osum = 0;  
 int nsum=0;  
 if (len==1){  
 osum=intar[0];  
 }  
 else {  
 for (int n = 0; n < len-1; n++) {  
 switch (str3[n]) {  
 case one:  
 int a1 = intar[n + 1];  
 int b1 = intar[n];  
 nsum = AddingValue1(len, osum, a1, b1);  
 intar[n+2] = nsum;  
 System.*out*.println("case one: nsum= "+nsum+" a= "+a1+" b= "+b1+" osum= "+osum);  
  
 break;  
 case five:  
 int a2 = intar[n + 1];  
 int b2 = intar[n];  
 int c2 = intar[n-1];  
 nsum = AddingValue2(len, osum, a2,b2);  
 nsum = SubstractingValue1(len, osum, c2, b2);  
 break;  
 case ten:  
 int a3 = intar[n + 1];  
 int b3 = intar[n];  
 int c3 = intar[n-1];  
 nsum = AddingValue3(len, osum, a3, b3);  
 nsum = SubstractingValue2(len, osum, c3, b3);  
 break;  
 case fifty:  
 int a4 = intar[n + 1];  
 int b4 = intar[n];  
 int c4 = intar[n-1];  
 nsum = AddingValue4(len, osum, a4, b4);  
 nsum = SubstractingValue3(len, osum, c4, b4);  
 break;  
 case onehundred:  
 int a5 = intar[n + 1];  
 int b5 = intar[n];  
 int c5 = intar[n-1];  
 nsum = AddingValue5(len, osum, a5, b5);  
 nsum = SubstractingValue4(len, osum, c5, b5);  
 break;  
 case fivehundred:  
 int a6 = intar[n + 1];  
 int b6 = intar[n];  
 int c6 = intar[n-1];  
 nsum = AddingValue6(len, osum, a6, b6);  
 nsum = SubstractingValue5(len, osum, c6, b6);  
 break;  
 case onethousand:  
 int a7 = intar[n + 1];  
 int b7 = intar[n];  
 int c7 = intar[n-1];  
 nsum = SubstractingValue6(len, osum, c7, b7);  
 break;  
 case " ":  
 nsum += 0;  
 break;  
 default:  
 nsum += 0;  
 break;  
 }  
 osum=nsum;  
 }  
 }  
 return osum;  
 }  
  
 public static void main(String[] args) throws IOException {  
 RomanParser rp = new RomanParser();  
 String str = rp.InputData();  
 if (rp.ValidateInputData(str)){  
 int response = rp.ParseData(str);  
 System.*out*.println("Response: "+response);  
 }else{  
 System.*out*.println("Input Error");  
 }  
 }  
}