import java.io.BufferedReader;  
import java.io.IOException;  
import java.io.InputStreamReader;  
  
public class RomanParser {  
 public int flag = 0;  
 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 Operation1(int len, int sum, int a, int b, int c) {  
 System.*out*.println("Operation1 input sum: "+sum+" a: "+a+" b:"+b+" c: "+c+" flag:"+flag);  
 int res=0;  
  
 if(flag==1){res=sum;flag=0;}else {  
  
 if (a >= b) {  
 if (c > b) {  
 res = a + (c - b);  
 System.*out*.println("summing possible but not between last 2 digits");  
 System.*out*.println("Adding output sum: " + res);  
 flag=1;  
 } else {  
 res = a + b;  
 System.*out*.println("summing possible");  
 System.*out*.println("Adding output sum: " + res);  
 }  
 }  
 if (b > a) {  
 if (c > b) {  
 ;  
 } else {  
 res = b - a;  
 System.*out*.println("summing not possible");  
 System.*out*.println("Subtracting output res: " + res);  
 }  
 }  
 }  
 return res;  
 }  
  
 public int Operation2(int len, int sum, int a, int b, int c) {  
 System.*out*.println("Operation2 input sum: "+sum+" a: "+a+" b:"+b+" c: "+c+" flag:"+flag);  
 int res=0;  
 if(flag==1){res=sum;flag=0;}else {  
  
 if (a >= b) {  
 if (c > b) {  
 res = a + (c - b);  
 System.*out*.println("summing possible but not between last 2 digits");  
 System.*out*.println("Adding output sum: " + res);  
 flag=1;  
 } else {  
 res = a + b;  
 System.*out*.println("summing possible");  
 System.*out*.println("Adding output sum: " + res);  
 }  
 }  
 if (b > a) {  
 if (c > b) {  
 ;  
 } else {  
 res = b - a;  
 System.*out*.println("summing not possible");  
 System.*out*.println("Subtracting output res: " + res);  
 }  
 }  
 }  
 return res;  
 }  
  
 public int Operation3(int len, int sum, int a, int b, int c) {  
 System.*out*.println("Operation3 input sum: "+sum+" a: "+a+" b:"+b+" c: "+c+" flag:"+flag);  
 int res=0;  
 if( a >= b ){  
 if ( c > b ){  
 res = a + (c-b);  
 System.*out*.println("summing possible but not between last 2 digits");  
 System.*out*.println("Adding output sum: "+res);  
 flag=1;  
 }  
 else{  
 res = a+b;  
 System.*out*.println("summing possible");  
 System.*out*.println("Adding output sum: "+res);}  
 }  
 if( b > a ){  
 if ( c > b ){ ;}  
 else{  
 res = b-a;  
 System.*out*.println("summing not possible");  
 System.*out*.println("Subtracting output res: "+res);}  
 }  
 return res;  
 }  
  
 public int Operation4(int len, int sum, int a, int b, int c) {  
 System.*out*.println("Operation4 input sum: "+sum+" a: "+a+" b:"+b+" c: "+c+" flag:"+flag);  
 int res=0;  
 if(flag==1){res=sum;flag=0;}else {  
  
 if (a >= b) {  
 if (c > b) {  
 res = a + (c - b);  
 System.*out*.println("summing possible but not between last 2 digits");  
 System.*out*.println("Adding output sum: " + res);  
 flag=1;  
 } else {  
 res = a + b;  
 System.*out*.println("summing possible");  
 System.*out*.println("Adding output sum: " + res);  
 }  
 }  
 if (b > a) {  
 if (c > b) {  
 ;  
 } else {  
 res = b - a;  
 System.*out*.println("summing not possible");  
 System.*out*.println("Subtracting output res: " + res);  
 }  
 }  
 }  
 return res;  
 }  
  
 public int Operation5(int len, int sum, int a, int b, int c) {  
 System.*out*.println("Operation5 input sum: "+sum+" a: "+a+" b:"+b+" c: "+c+" flag:"+flag);  
 int res=0;  
 if(flag==1){res=sum;flag=0;}else {  
  
 if (a >= b) {  
 if (c > b) {  
 res = a + (c - b);  
 System.*out*.println("summing possible but not between last 2 digits");  
 System.*out*.println("Adding output sum: " + res);  
 flag=1;  
 } else {  
 res = a + b;  
 System.*out*.println("summing possible");  
 System.*out*.println("Adding output sum: " + res);  
 }  
 }  
 if (b > a) {  
 if (c > b) {  
 ;  
 } else {  
 res = b - a;  
 System.*out*.println("summing not possible");  
 System.*out*.println("Subtracting output res: " + res);  
 }  
 }  
 }  
 return res;  
 }  
  
 public int Operation6(int len, int sum, int a, int b, int c) {  
 System.*out*.println("Operation6 input sum: "+sum+" a: "+a+" b:"+b+" c: "+c+" flag:"+flag);  
 int res=0;  
 if(flag==1){res=sum;flag=0;}else {  
  
 if (a >= b) {  
 if (c > b) {  
 res = a + (c - b);  
 System.*out*.println("summing possible but not between last 2 digits");  
 System.*out*.println("Adding output sum: " + res);  
 flag=1;  
 } else {  
 res = a + b;  
 System.*out*.println("summing possible");  
 System.*out*.println("Adding output sum: " + res);  
 }  
 }  
 if (b > a) {  
 if (c > b) {  
 ;  
 } else {  
 res = b - a;  
 System.*out*.println("summing not possible");  
 System.*out*.println("Subtracting output res: " + res);  
 }  
 }  
 }  
 return res;  
 }  
  
 public int Operation7(int len, int sum, int a, int b, int c) {  
 System.*out*.println("Operation7 input sum: "+sum+" a: "+a+" b:"+b+" c: "+c+" flag:"+flag);  
 int res=0;  
 if(flag==1){res=sum;flag=0;}else {  
  
 if (a >= b) {  
 if (c > b) {  
 res = a + (c - b);  
 System.*out*.println("summing possible but not between last 2 digits");  
 System.*out*.println("Adding output sum: " + res);  
 flag=1;  
 } else {  
 res = a + b;  
 System.*out*.println("summing possible");  
 System.*out*.println("Adding output sum: " + res);  
 }  
 }  
 if (b > a) {  
 if (c > b) {  
 ;  
 } else {  
 res = b - a;  
 System.*out*.println("summing not possible");  
 System.*out*.println("Subtracting output res: " + res);  
 }  
 }  
 }  
 return res;  
 }  
  
  
 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 b1 = intar[n + 1];  
 int a1 = intar[n];  
 int c1= intar[n+2];  
 nsum = Operation1(len,osum,a1,b1,c1);  
 intar[n+1] = nsum;  
 System.*out*.println("case one: nsum= "+nsum+" a= "+a1+" b= "+b1+" c= "+c1+" osum= "+osum);  
 break;  
 case five:  
 int b2 = intar[n + 1];  
 int a2 = intar[n];  
 int c2= intar[n+2];  
 nsum = Operation2(len,osum,a2,b2,c2);  
 intar[n+1] = nsum;  
 System.*out*.println("case five: nsum= "+nsum+" a= "+a2+" b= "+b2+" c= "+c2+" osum= "+osum);  
 break;  
 case ten:  
 int b3 = intar[n + 1];  
 int a3 = intar[n];  
 int c3= intar[n+2];  
 nsum = Operation3(len,osum,a3,b3,c3);  
 intar[n+1] = nsum;  
 System.*out*.println("case ten: nsum= "+nsum+" a= "+a3+" b= "+b3+" c= "+c3+" osum= "+osum);  
 break;  
 case fifty:  
 int b4 = intar[n + 1];  
 int a4 = intar[n];  
 int c4= intar[n+2];  
 nsum = Operation4(len,osum,a4,b4,c4);  
 intar[n+1] = nsum;  
 System.*out*.println("case fifty: nsum= "+nsum+" a= "+a4+" b= "+b4+" c= "+c4+" osum= "+osum);  
 break;  
 case onehundred:  
 int b5 = intar[n + 1];  
 int a5 = intar[n];  
 int c5= intar[n+2];  
 nsum = Operation5(len,osum,a5,b5,c5);  
 intar[n+1] = nsum;  
 System.*out*.println("case onehundred: nsum= "+nsum+" a= "+a5+" b= "+b5+" c= "+c5+" osum= "+osum);  
 break;  
 case fivehundred:  
 int b6 = intar[n + 1];  
 int a6 = intar[n];  
 int c6= intar[n+2];  
 nsum = Operation6(len,osum,a6,b6,c6);  
 intar[n+1] = nsum;  
 System.*out*.println("case fivehundred: nsum= "+nsum+" a= "+a6+" b= "+b6+" c= "+c6+" osum= "+osum);  
 break;  
 case onethousand:  
 int b7 = intar[n + 1];  
 int a7 = intar[n];  
 int c7= intar[n+2];  
 nsum = Operation7(len,osum,a7,b7,c7);  
 intar[n+1] = nsum;  
 System.*out*.println("case onethousand: nsum= "+nsum+" a= "+a7+" b= "+b7+" c= "+c7+" osum= "+osum);  
 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");  
 }  
 }  
}