**package** com.company;  
  
**import** java.util.InputMismatchException;  
**import** java.util.Scanner;  
  
 **public class** Calculator1 {  
  
 **static** Scanner *scanner* = **new** Scanner(System.***in***);  
 **static int** *number1*, *number2*;  
 **static char** *operation*;  
 **static int** *result*;  
  
 **public static void** main (String[] args) {  
 System.***out***.println(**"Введите выражение [2+2] или два римских числа от I до X:[V+V] + Enter "**);  
*// Считываем строку userInput которую ввёл пользователь*  
String userInput = *scanner*.nextLine();  
*// Создаём пустой символьный массив длиной 10 символов: under\_char*  
**char**[] under\_char = **new char**[10];  
*// Заполняем символьный массив символами строки которую ввел пользователь и по ходу ловим знак операции*  
**for** (**int** i = 0; i < userInput.length(); i++) {  
 under\_char[i] = userInput.charAt(i);  
 **if** (under\_char[i] == **'+'**) {  
 *operation* = **'+'**;  
 }  
 **if** (under\_char[i] == **'-'**) {  
 *operation* = **'-'**;  
 }  
 **if** (under\_char[i] == **'\*'**) {  
 *operation* = **'\*'**;  
 }  
 **if** (under\_char[i] == **'/'**) {  
 *operation* = **'/'**;  
 }  
 }  
 String under\_charString = String.*valueOf*(under\_char);  
 String[] blacks = under\_charString.split(**"[+-/\*]"**);  
 String stable00 = blacks[0];  
 String stable01 = blacks[1];  
 String string03 = stable01.trim();  
 *number1* = *romanToNumber*(stable00);  
 *number2* = *romanToNumber*(string03);  
 **if** (*number1* < 0 && *number2* < 0) {  
 *result* = 0;  
 } **else** {  
 *result* = *calculated*(*number1*, *number2*, *operation*);  
 System.***out***.println(**"Результат для римских цифр"**);  
 String resultRoman = *convertNumToRoman*(*result*);  
 System.***out***.println(stable00 + **" "** + *operation* + **" "** + string03 + **" = "** + resultRoman);  
 }  
 *number1* = Integer.*parseInt*(stable00);  
 *number2* = Integer.*parseInt*(string03);  
 *result* = *calculated*(*number1*, *number2*, *operation*);  
 System.***out***.println(**"Результат для арабских цифр"**);  
 System.***out***.println(*number1* + **" "** + *operation* + **" "** + *number2* + **" = "** + *result*);  
 }  
  
 **private static** String convertNumToRoman (**int** numArabian) {  
 String[] roman = {**"O"**, **"I"**, **"II"**, **"III"**, **"IV"**, **"V"**, **"VI"**, **"VII"**, **"VIII"**, **"IX"**, **"X"**, **"XI"**, **"XII"**, **"XIII"**, **"XIV"**, **"XV"**, **"XVI"**, **"XVII"**, **"XVIII"**, **"XIX"**, **"XX"**,  
 **"XXI"**, **"XXII"**, **"XXIII"**, **"XXIV"**, **"XXV"**, **"XXVI"**, **"XXVII"**, **"XXVIII"**, **"XXIX"**, **"XXX"**, **"XXXI"**, **"XXXII"**, **"XXXIII"**, **"XXXIV"**, **"XXXV"**, **"XXXVI"**, **"XXXVII"**, **"XXXVIII"**, **"XXXIX"**, **"XL"**,  
 **"XLI"**, **"XLII"**, **"XLIII"**, **"XLIV"**, **"XLV"**, **"XLVI"**, **"XLVII"**, **"XLVIII"**, **"XLIX"**, **"L"**, **"LI"**, **"LII"**, **"LIII"**, **"LIV"**, **"LV"**, **"LVI"**, **"LVII"**, **"LVIII"**, **"LIX"**, **"LX"**,  
 **"LXI"**, **"LXII"**, **"LXIII"**, **"LXIV"**, **"LXV"**, **"LXVI"**, **"LXVII"**, **"LXVIII"**, **"LXIX"**, **"LXX"**,  
 **"LXXI"**, **"LXXII"**, **"LXXIII"**, **"LXXIV"**, **"LXXV"**, **"LXXVI"**, **"LXXVII"**, **"LXXVIII"**, **"LXXIX"**, **"LXXX"**,  
 **"LXXXI"**, **"LXXXII"**, **"LXXXIII"**, **"LXXXIV"**, **"LXXXV"**, **"LXXXVI"**, **"LXXXVII"**, **"LXXXVIII"**, **"LXXXIX"**, **"XC"**,  
 **"XCI"**, **"XCII"**, **"XCIII"**, **"XCIV"**, **"XCV"**, **"XCVI"**, **"XCVII"**, **"XCVIII"**, **"XCIX"**, **"C"**  
};  
 **final** String s = roman[numArabian];  
 **return** s;  
 }  
  
  
 **private static int** romanToNumber (String roman) {  
 **try** {  
 **if** (roman.equals(**"I"**)) {  
 **return** 1;  
 } **else if** (roman.equals(**"II"**)) {  
 **return** 2;  
 } **else if** (roman.equals(**"III"**)) {  
 **return** 3;  
 } **else if** (roman.equals(**"IV"**)) {  
 **return** 4;  
 } **else if** (roman.equals(**"V"**)) {  
 **return** 5;  
 } **else if** (roman.equals(**"VI"**)) {  
 **return** 6;  
 } **else if** (roman.equals(**"VII"**)) {  
 **return** 7;  
 } **else if** (roman.equals(**"VIII"**)) {  
 **return** 8;  
 } **else if** (roman.equals(**"IX"**)) {  
 **return** 9;  
 } **else if** (roman.equals(**"X"**)) {  
 **return** 10;  
 }  
 } **catch** (InputMismatchException e) {  
 **throw new** InputMismatchException(**"Неверный формат данных"**);  
 }  
 **return** -1;  
 }  
  
 **public static int** calculated (**int** num1, **int** num2, **char** op) {  
 **int** result = 0;  
 **switch** (op) {  
 **case '+'**:  
 result = num1 + num2;  
 **break**;  
 **case '-'**:  
 result = num1 - num2;  
 **break**;  
 **case '\*'**:  
 result = num1 \* num2;  
 **break**;  
 **case '/'**:  
 **try** {  
 result = num1 / num2;  
 } **catch** (ArithmeticException | InputMismatchException e) {  
 System.***out***.println(**"Exception : "** + e);  
 System.***out***.println(**"Only integer non-zero parameters allowed"**);  
  
 **break**;  
 }  
 **break**;  
 **default**:  
 **throw new** IllegalArgumentException(**"Не верный знак операции"**);  
 }  
 **return** result;  
 }  
}