物件導向程式設計 第六次小考

Object-Oriented Programming Quiz 6

1.

請修改下列程式碼讓程式執行成功。在此有兩個檔案，分別是 package *p1* 和 package *p2*。你必須將 package *p2* 的 class *class2* 用在 *class1* 中。

Your program needs to be written based on the following framework so that it can be executed successfully. There are **two files** which are package *p1* and package *p2*, respectively. You need to use package *p2*'s class *class2* in *class1*.

```java
package p1;

// To Do; import package p2 的 class2

public class class1 {

    public static void main(String args[])
    {
        String str, ans1;
        int   num;

        num = Integer.parseInt("123"); // 為何不用先建立Integer物件
        System.out.println(num);

        ans1="把答案打在這 Typing your answere here";
        System.out.println(ans1);

        StringBuffer str1 = new StringBuffer("rainy & sunny");
        System.out.println(str1);

        // To Do 1 line;  修改str1成 windy & sunny
        //                Modifying str1 to "windy & sunny"

        class2 cc = new class2();
        cc.show();

    }

}
```

```java
package p2;

public class class2 {
    void show() {        //修改這行讓show()可以被其他package存取;  show() can be accessed from different packages
        //                                              by modifying this line.

        System.out.println("using show()");
    }

}
```

2.

請修改下列程式碼並在 Main 使用泛型類別 class *CMember* 的函數 *show( )* 輸出 *s*、*s1* 變數中的內容。並使用泛型類別 class *CMember* 的函數 *set( )* 設定 class *CMember* 內區域變數的值。

Please revise the code and use the function *show( )* of the generic class *CMember* to output the contents of the *s* and *s1* variables. Use the function *set( )* of the generic class *CMember* to set the value of the local variable in the class *CMember*. Your program needs to be completed based on the following framework.

```java
public class main1 {

    public static void main(String[] args) {

        CMember<String,Integer> a = new CMember<String,Integer>();
        CMember<Integer,String> a1 = new CMember<Integer,String>();
        String[]  s = {"four","five","three","one","two"};
        Integer[] s1 = {4,5,3,1,2};

        a.set(s,s1);
        a1.set(s1,s);

        a.show();
        System.out.println("\n");
        a1.show();
    }

}
class CMember<>  // To Do 只能增加一行 (You can just add one line here.)
{
    // To Do 增加數行。只能宣告變數，不能增加其他函數
    // (You can just add several lines and only declare variables. Can't declare other functions)

    public void set()  // To Do 只能增加一行 (You can just add one line here.)
    {
        // To Do 可以新增數行程式碼 (You can add several lines here.)
    }
    public void show()
    {
        // To Do 可以新增數行程式碼 (You can add several lines here.)
    }
}
```

Output
4 : four
5 : five
3 : three
1 : one
2 : two

four : 4
five : 5
three : 3
one : 1
two : 2

3.

根據下圖程式，請寫出一個程式讓使用者可以輸入兩個數字 *N*、*M*，並且輸出 *N* 除以 *M* 的結果。
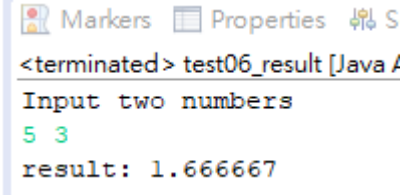
● 限制 1：<u>不可</u>刪減現有的程式碼。

Consider the code below. Your program is required to take as input two numbers *N* and *M*, and outputs *N* divided by *M*.

● Limit 1: You are **NOT** allowed to delete the code given in this quiz.

```java
package test06;
import java.util.Scanner;

public class test06{
    public static void main(String arg[]) {

        Scanner scn1 = new Scanner(System.in);
        System.out.println("Input two numbers");
        int N = scn1.nextInt();
        int M = scn1.nextInt();
        Func func1 = new Func();
        // To Do 只能新增一行(You can just add one line here.)
        // 不可以使用if-else或switch. ( You are not allowed to use if-else and switch.)

        func1.div1(N, M);
        // To Do 可以新增數行程式碼(You can add several lines here.)

        scn1.close();
    }
}
class Func{
    final void div1(int N, int M) {
        float result = N/M/0;
        System.out.printf("result: %f", result);
    }
    // To Do 可以新增數行程式碼(You can add several lines here.)
}
```

Example:

```
Markers   Properties   S
<terminated> test06_result [Java
Input two numbers
5 3
result: 1.666667
```