101 學年度 Assignment 1

Description

- 本作業必須以「Microsoft Visual Studio 2010 Professional」完成，利用其它軟體完成者將不予計分。
- 開啟「Microsoft Visual Studio 2010」，新增一個「專案」，以你的學號及作業的題號作為專案名稱。例如你的學號為 s123456 且要寫的作業為 Assignment 1 的第 3 題，則你的專題名稱為「s123456_Assignment1_3」。
- 你的專案目錄可能被儲存在"C:\Documents and Settings\Administrator\My Documents\Visual Studio 2010\Projects\s123456_Assignment1_3" in XP 作業系統 or "C:\Users\Administrator\Documents\Visual Studio 2010\Projects\s123456_Assignment1_3" in Windows 7 作業系統。
- 在完成程式撰寫後，完成存檔並關閉 Microsoft Visual Studio 2010 Professional。重複上述動作，進行下一題的作業。
- 當完成所有作業，回到「Projects」目錄，選擇所有要上傳的目錄，例如「s123456_Assignment1_1」、「s123456_Assignment1_2」、「s123456_Assignment1_3」等，並將滑鼠壓在這些目錄上並按滑鼠右鍵，以「傳送到」選項下的壓縮功能進行壓縮，壓縮後將得到此一作業的壓縮檔，例如 s123456_Assignment1_1.zip。之後將此一壓縮檔的檔名改為 s123456.zip，並上傳該檔至虛擬教室。
- 若繳交的內容(含檔案命名方式，目錄名稱)與指定的內容不合，將不被評分。

1. Write, compile, and run a C# program that displays the following prompts:

```
Enter a number:
Enter a second number:
Enter a third number:
Enter a fourth number:
```

After each prompt is displayed, your program should use a Console.ReadLine() statement to accept a number from the keyboard for the displayed prompt. After the forth number has been entered, your program should calculate and display the four numbers, sum of the numbers and the average of the numbers. The output message should be in the format as:

```
The four numbers are: “xxx”, “xxx”, “xxx”, “xxx”
The sum of the four numbers are:        xxx
The average of the four numbers are: x,xxx.xxx
```

The following screens show examples.

每一個 number 以 “ “ 包括

```
Enter a number: 12345
Enter a second number: 54321
Enter a third number: 67890
Enter a fourth number: 98765
The four nmbers are: "12345", "54321", "¦67890", "98765"
The sum of the four numbers are:     233321
The average of the four numbers are: 58,330.250
請按任意鍵繼續 . . .
```

1. 預留十個空格，靠右對齊
2. 小數點後三位
3. 以 Number 格式顯示數字(xx,xx,xxx)

預留十個空格，靠右對齊

```
Enter a number: 0.34
Enter a second number: 0.23
Enter a third number: 1.23
Enter a fourth number: 34.7
The four nmbers are: "0.34", "0.23", "¦1.23", "34.7"
The sum of the four numbers are:       36.5
The average of the four numbers are:      9.125
請按任意鍵繼續 . . .
```

2. The perimeter, surface area, and volume of an in-ground pool are given by the following formulas:
*perimeter = 2 * (length + width)*
*volume = length * width * average depth*
*underground surface area =2 * (length + width) * average depth + length * width*

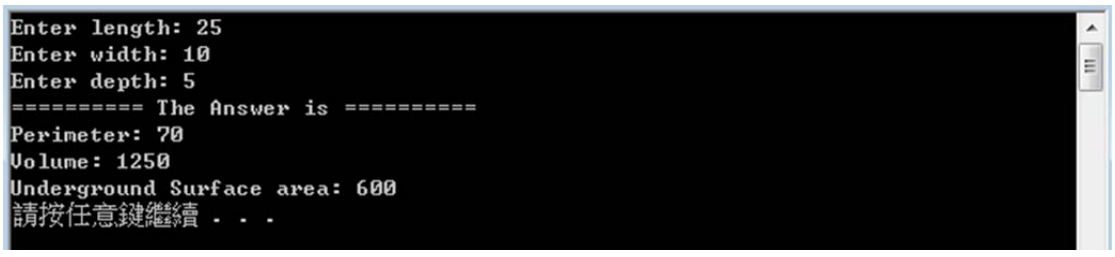
Using these formulas as a basis, write a C# program that accepts the length, width, and average depth measurements, and then calculates the pool's perimeter, volume, and underground surface area. The C# program displays the following prompts:

```
Enter length:
Enter width:
Enter depth:
```

The output message should be in the format as:

```
========== The Answer is ==========
Perimeter: xxx
Volume: xxx
Underground Surface area: xxx
```

In writing your program, make these two calculations immediately after entering the input data: *length * width* and *length + width*. The results of these two calculations should be used, as needed, in the assignment statements for determining the perimeter, volume, and underground surface area without recalculating them for each equation.



3. Years that are evenly divisible by 400 or are evenly divisible by 4 but not by 100 are leap years. For example, because 1600 is evenly divisible by 400, 1600 was a leap year. Similarly, because 1988 is evenly divisible by 4 but not by 100, it was also a leap year. Using this information, write a C# program that accepts the year as user input, determines whether the year is a leap year, and displays a message telling the user whether the entered year is or is not a leap year.