**Introduction**

The objective of this lab is to introduce you to writing repetition (loop) statements C# code.

**Assignment**

Complete tutorials 5-1 through 5-3 in the textbook. (There are starting files in the source code that accompanies the textbook.)

Complete the following Programming Problems from the end of Chapter 5 in the textbook:

**4. Population**

Create an application that predicts the approximate size of a population of organisms. The application should use text boxes to allow the user to enter the starting number of organisms, the average daily population increase (as a percentage), and the number of days the organisms will be left to multiply. For example, assume the user enters the following values:

* *Starting number of organisms: 2*
* *Average daily increase: 30%*
* *Number of days to multiply: 1*

The application should display the following table of data in a ListBox control.

|  |  |
| --- | --- |
| Day | Approximate Population |
| 1 | 2 |
| 2 | 2.6 |
| 3 | 3.38 |
| 4 | 4.394 |
| 5 | 5.7122 |
| 6 | 7.42586 |
| 7 | 9.653619 |
| 8 | 12.5497 |
| 9 | 16.31462 |
| 10 | 21.209 |

(Gaddis 336)

**6. Ocean Levels**

Assuming the ocean’s level is currently rising at about 1.5 millimeters per year, create an application that displays the number of millimeters that the ocean will have risen each year for the next 10 years. Display the output in a ListBox control. (Gaddis 336)

**7. Calories Burned**

Running on a particular treadmill, you burn 3.9 calories per minute. Create an application that uses a loop to display the number of calories burned after 10, 15, 20, 25, and 30 minutes. Display the output in a ListBox control. (Gaddis 336)

Gaddis, Tony. *Starting out with Visual C# 2012 (with CD-ROM), 3/e, 3rd Edition*. Pearson, 06/2013. VitalBook file.

**Files to Submit to Moodle**

* A document containing screenshots of the applications you wrote for the Programming Problems running (label each screen-shot).
* Zipped VS solution folders for each problem.
* The completed code review form for your lab work.
* A copy of the code review you gave to your code review partner.