

# Homework # 4

Due: Oct. 17, 2009 (Saturday at 11:59 PM)

## Chapter 5 Programming Challenge 9: Population (see description below)

FOR EXTRA CREDIT: you can include a parallel List Box for a bar chart of asterisks (like in Programming Challenge 6 Bar Chart) for the approximate population.

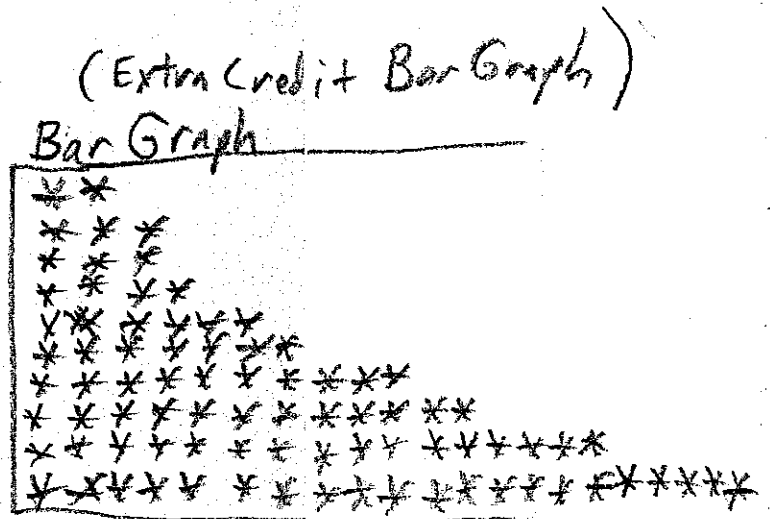
### 9. Population

Create an application that will predict the approximate size of a population of organisms. The user should select or enter the starting number of organisms in a combo box, enter the average daily population increase (as a percentage) in a text box, and select or enter the number of days the organisms will be left to multiply in another combo box. For example, assume the user enters the following values:

Starting number of organisms: 2  
Average daily increase: 30%  
Number of days to multiply: 10

The application should display the following table of data.

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



Be sure to add appropriate ToolTips for each control on the form.

*Input validation:* Do not accept a number less than 2 for the starting size of the population. Do not accept a negative number for the average daily population increase. Do not accept a number less than 1 for the number of days the organisms will multiply.