Due Date: Monday 20 January 2014 11:59 PM MST
Note: If you submit after the due date (but before the hard deadline), your submission score will be penalized by 20%.

Hard Deadline: Wednesday 22 January 2014 11:59 PM MST
Note: If you submit any time after the hard deadline, you will not receive credit.

Problem 01 (15 points)

Write a program that calculates how much money you will end up with if you invest an amount of money at a fixed interest rate, compounded yearly. Have the user furnish the initial amount, the number of years, and the yearly interest rate in percent. Some interaction with the program might look like this:

```
Enter initial amount: 3000
Enter number of years: 10
Enter interest rate (percent per year): 5.5
At the end of 10 years, you will have 5124.43 dollars.
```

At the end of the first year you have 3000 + (3000 * 0.055), which is 3165. At the end of the second year you have 3165 + (3165 * 0.055), which is 3339.08. Do this as many times as there are years. A for loop makes the calculation easy.

Problem 02 (15 points)

By recent estimates, two-thirds of the people in the United States are overweight and about half of those are obese. This causes significant increases in illnesses such as diabetes and heart disease. To determine whether a person is overweight or obese, you can use a measure called the body mass index (BMI). The United States Department of Health and Human Services provides a BMI calculator at http://www.nhlbi.nih.gov/guidelines/obesity/BMI/bmicalc.htm. Use it to calculate your own BMI. The formulas for calculating BMI are

$$BMI = \frac{weightInPounds \times 703}{heightInInches \times heightInInches}$$

or

$$BMI = \frac{weightInKilograms}{heightInMeters \times heightInMeters}$$

Create a BMI calculator application that reads the user's weight in pounds and height in inches (or, if you prefer, the user's weight in kilograms and height in meters), then calculates and displays the user's body mass index. Also, the application should display the following information from the Department of Health and Human Services/National Institutes of Health so the user can evaluate his/her BMI:

```
BMI VALUES
Underweight: less than 18.5
Normal:      between 18.5 and 24.9
Overweight:  between 25 and 29.9
Obese:       30 or greater
```