Homework-1

**Out Date:** 08/30/2019 (Friday)

**Due Date:** 09/08/2019 (Sunday) 11:59PM

Team#: \_\_\_

Team Member-1:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Member’s Contribution (in %) \_\_

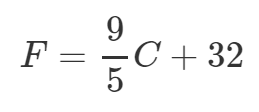
Team Member-2:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Member’s Contribution (in %) \_\_

**Submission**

1. Work on the following requirements.
2. Prepare your Python file for Problem-1 (e.g., HW0\_P1\_Team#.py).
3. Prepare your Python file for Problem-2 (e.g., HW0\_P2\_Team#.py).
4. Upload the files to blackboard.

**Problem-1 [40 points]**

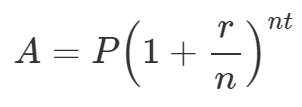
Write a program that converts Celsius temperatures to Fahrenheit temperatures. The formula is as follows:



The program should ask the user to enter a temperature in Celsius **[10 points]**, then compute and display the temperature converted to Fahrenheit **[30 points]**.

**Problem-2 [40 points]**

When a bank account pays compound interest, it pays interest not only on the principal amount that was deposited into the account, but also on the interest that has accumulated over time. Suppose you want to deposit some money into a savings account, and let the account earn compound interest for a certain number of years. The formula for calculating the balance of the account after a specified number of years is:



The terms in the formula are:

* *A* is the amount of money in the account after the specified number of years.
* *P* is the principal amount that was originally deposited into the account.
* *r* is the annual interest rate.
* *n* is the number of times per year that the interest is compounded.
* *t* is the specified number of years.

Write a program that makes the calculation for you. The program should ask the user to input the following **[10 points]**:

* The amount of principal originally deposited into the account
* The annual interest rate paid by the account
* The number of times per year that the interest is compounded (For example, if interest is compounded monthly, enter 12. If interest is compounded quarterly, enter 4.)
* The number of years the account will be left to earn interest

Once the input data has been entered, the program should calculate and display the amount of money that will be in the account after the specified number of years **[30 points]**.

Please make sure your code follows the Python programing style guide available here: <https://www.python.org/dev/peps/pep-0008/> **[10 points]**.

Please make sure the code is well-commented **[10 points]**