* **School:** Foothill Community College
* **Class:** Python II CS21B
* **Term:** Winter 2018
* **Due** Tuesday January 16, 2018 by 11:59pm
* **Points** 22.5
* **Submitting** a file upload
* **File Types** py
* **Available** Jan 10 at 8am - Jan 18 at 11:59pm

Arithmetic, Data Types, User Input, Formatting Output, Importing Modules

*Make sure that you have read and understood*

* ***Unit module1***
* ***Helpful Python3 tutorial links:***
  + [*Built-in Types*.](https://docs.python.org/3/library/stdtypes.html)
  + [*datetime - Basic date and time types*.](https://docs.python.org/3/library/datetime.html)
  + [*Input and Output*.](https://docs.python.org/3/tutorial/inputoutput.html)
  + [*PEP 8 -- Style Guide for Python Code*.](https://www.python.org/dev/peps/pep-0008/)

before submitting this assignment.  Hand in only one submission.

Every programming assignment is as much a test of **English language comprehension**as it is a test of programming or mathematical skills. This week, the explanations of the formulae below are given clearly in plain English if you read carefully. However, if there is ***any*** question about what is being asked, you are urged to ask for clarification in the public forums.

**Understand the Application**

You will create two int variables, **myId** and **nLet**, into which you will store:

* **myId**= The sum of the numbers in your College Generated **student ID**.  (This is the sum of an 8-digit number; not to confuse it with your social security # or a password, which it is not).
* **nLet*=*** The number of letters in your **family (last) name.**

In order to receive any credit for this assignment, these two values must match what I have for you on my class roster.

Your program will compute some values based on these two numbers, so that each student will have a unique output.

**The Program Spec**

The following expressions assume that you have stored the sum of the numbers of your student ID into the variable **myId**, and the number of letters in your last (family) name into the variable **nLet**.  Your program will compute these values based on the user input data supplied for name and ID.

Your program should compute and display the results for the following expressions:

expression1:             myId / 2

expression 2:            myId % 2

expression 3:            2 + 3 + … + nLet

expression 4:            myId + nLet

expression 5:            abs(nLet – myId)

expression 6:            (myId) / (nLet + 1100)

expression 7:            (nLet % nLet) and (myId \* myId)

expression 8:            1 or (myId / 0)

expression 9:            round(3.14, 1)

Write a Python program that computes and displays the results of these nine expressions. Import the [datetime.](https://docs.python.org/3/library/datetime.html" \t "_blank) module to generate the date of your test run.  Print this date in your run output.

Your program display should look something like this (although the values will differ for each student):

Today's date is 2018-01-09  
Enter your family name: Student  
Enter your student ID: 1234567  
myId is: 28  
nLet is: 7  
expression 1: 14.00  
expression 2: 0  
expression 3: 27  
expression 4: 35  
expression 5: 21  
expression 6: 0.03  
expression 7: 0  
expression 8: 1  
expression 9: 3.10

Here are some tips and REQUIREMENTS:

1. The "..." is called an "ellipsis" and means "and so forth". So, when nLet is 7, the expression **2 + 3 \_+... + nLet**really means to **add the numbers from 2 all the way up to and including the number 7.**
2. Your personal information is supposed to be entered as user input.
3. Assign the arithmetic expression results to a variable.
4. Use a space around operators.
5. Perform the necessary data conversions to perform arithmetic operations.
6. As you can see in the sample run, the first thing your program needs to do is print out your **family (last) name**and your **student ID**.
7. Format floating point numbers to 2 decimal places.
8. Import the [datetime.](https://docs.python.org/3/library/datetime.html" \t "_blank)module to display the current date of your test run submission.
9. Ensure that your solution is well organized. Providing a program header and comments to document and organize your source code.
10. Provide a commented out copy of your program run.  Enclose the run inside of comment delimiters so that your program will run in the grader test bed.  Place the run after your program source code.

**Deliverable:**

1.    Hand in a **.py** file (Example yournameLab1.py).

2.    Include **both** the Python source followed by the run (comment out the run).

3.    Remove all tabs (use spaces only).

**Example Lab File Format Submission:**

* Student Name:  Ann Foothill
* Submission file name[annFoothillLab1.pyPreview the documentView in a new window](https://foothillcollege.instructure.com/courses/5088/files/832008/download?verifier=hTcgpiPx6RJmW0u6Kpjlh17LiSQZSPKIEZniV25a&wrap=1)