**Assignment Directions**

For all assignments, follow the guidelines in the PEP8 Standards for this Class document in the Student Docs section. Your programs and zip files must be named correctly, contain a docstring heading and include the other style requirements taught to this point. Be sure that your user prompts and print outputs are descriptive.

The specific instructions for these problems are adapted from problems shown in the textbook. Make sure to follow the specific instructions in THIS document.

**Chapter 1 Exercises**

1.1: Write a Python program that prompts the user to enter a number. In one calculation, take that number, add 2, multiply by 3, subtract 6, and divide by 3. Use an IF statement to check whether the input matches the calculated value and print the result of this check in a descriptive message.

1.2: Prompt user for input and then print that input as a string, an integer, and a floating-point value. What data types can be input that will print without generating **any errors**?   
Answer this question at the end of **your code** by using a docscring comment.

1.3: Write a Python program that asks the user to enter an integer (n) and computes the value of n+n\*n+n\*n\*n+n\*n\*n\*n = ?. The program must then print the formula, replacing the ‘n’ variables with the user input, and the ? with the calculation results.

1.4: One way to determine whether an integer is even or odd is to divide the number by two and check the remainder. Write a **three-line program** that (1) prompts for a number, (2) converts the input to an integer and (3) prints the number 0 if the user input is even and the number 1 if the user input is odd.

1.5: Body Mass Index (BMI) is a number calculated from a person’s weight and height.   
The formula for BMI is: ***weight / height*2** *where weight is in kilograms and height is in meters.*  
Write a program that:

* 1. prompts user for weight and height in one input
     + You decide whether to ask for Metric or Imperial (converting from pounds & inches back to metric)
     + Remember to tell the user which measurement system you are expecting
     + <Optional> You challenge yourself, try prompting the user for whether they want to enter Metric or Imperial. This is NOT required, and point will not be deducted for mistakes in this section of the code.
  2. performs BMI calculation
  3. prints BMI calculation
     + Remember to tell the user that BMI is being printed

**Chapter 2 Exercises**

2.6: Using a ‘for loop’ , write a program that calculated and prints all the leap years from 1900 to 2020 (inclusive). Make sure that you understand the rules for determining a leap year and use the modulo operator to manually calculate leap years. Do not use the calendar library.  
Then perform this calculation a second time using a ‘while loop’.

2.7: Rewrite this following ‘for loop’ as a ‘while loop’ and create a working program:  
Hint: X is a constant variable.

for i in range(1, X + 1):  
 if X % i == 0:  
 print(i)

**Where to submit?**

Click Assignments in the Navigation Area and then click on the title of the assignment to enter the submission area and upload your response.