

ENGR-1330-2021-3 Computational Thinking and Data Science
Assignment 2

Name: _____

R Number: _____

Purpose: Practice modifying scripts to accept and use user input.

1. Consider the problem statement: "Calculate the product (multiplication) of any three numbers and report whether the result is an even number or not."
 - a. Think about your solution (algorithm) and design a flowchart.
 - b. Draw your flowchart (either on paper or in a software (PowerPoint) and attach a screenshot, to your solution.
 - c. Based on your pseudocode, write your code in Python.
 - d. Test your code for these cases:
 - i. 10,2,1
 - ii. 3,5,7
 - iii. 4,6,8
 - e. What kind of structures did you use? sequential? selection? or both? why?
2. Write a Lottery Script to:
 - a. Receive a 10-digit lottery ticket number from user.
 - b. if the number is equal to "2205636346", print **"You are the lucky winner of 10 Million Dollars!"**
 - c. if the number is equal to "1010101010", print **"You are the unlucky winner of a bullet! Bang!"**
 - d. if the number is any other *even number*, print **"You win a chocolate dipped hotdog!"**
 - e. if the number is any other *odd number*, print **"you are odd!"**
3. Write a script to:
 - a. Receive an integer from user between 0 to 9,
 - b. if the number is **greater than 5** and **divisible by 3**, calculate its third power and print the value with an appropriate statement
 - c. if the number is **lower than 5** and **divisible by 2**, calculate its summation with 10 and print the value with an appropriate statement
 - d. if the number is **equal to 5**, print **"High Five!"**
 - e. else, print the number itself
 - i. 6
 - ii. 4
 - iii. 5
 - iv. 0

Upon completion of the exercise save your notebook and responses as a PDF file and upload to Blackboard.