**Homework 3**

**Due: Sunday (see Syllabus)**

**Points: 40**

**Instructions**

Assume you have the assignment data items:

data1 = [12, 10, 32, 3, 66, 17, 42, 99, 20], and

data2 = [14, 7, -12, 88, -17, 22, -5, 18].

Write a script that performs the following calculations:

1. Write a loop that prints each of the numbers on a single line separated with spaces.
2. Write a loop that prints each number and its square on a new line.
3. Write a loop that adds all the numbers from the list into a variable called **total**. You should initialize the total variable to have the value 0 before you start adding the values. You should print the total value along with a “label.” E.g., “The total of the values is ###”
4. Print the product of all the numbers in the list. (Product means all multiplied together.)

Your script should run once with data1 and once with data2.

Run your program several times using different inputs – sufficient to demonstrate that your program meets all the assignment requirements. (Actually, just one run for each data item should suffice.) Capture a screen shot of each run and paste them into an MS Word document. Place a caption above each image.

**Submit the Python .py file (lastname\_hw3.py) containing your program and the MS Word document** **to your instructor using the appropriate Assignment Submissions link.**

**Sample Output**

Text

Description automatically generated