DAT-119 – Python 1

**Homework 3**

1. Without using any if statements, write a script that gets three integers from the user. Output the sum, average, product, smallest, and largest of the numbers.

Example output:

Hello! Please enter three whole numbers, and this program will tell you their sum, their average, their product, which is the smallest, and which is the largest.

Enter first number: 18

Enter second number: 12

Enter third number: 42

Sum: 72

Average: 24.0

Product: 9072

Smallest: 12

Largest: 42

1. Some investment advisors say that it’s reasonable to expect a 7% return over the long term in the stock market. Assuming that you begin with $1000 and leave your money invested, calculate and display how much money you’ll have after 10, 20, and 30 years. Use the following formula for determining these amounts:

*a* = *p*(1 + *r*)*n*

where

*p* is the original amount invested (i.e. the principal of $1000)

*r* is the annual rate of return (7%)

*n* is the number of years (10, 20, or 30) and

*a* is the amount on deposit at the end of the nth year.

(Set a variable to each of these values. You can hard-code the values; you don’t have to get them from the user.)

Output:

If you start with $1000 and invest it at 7% return for the following amounts of time, you can expect to end up with…

Amount after 10 years: $1967.15

Amount after 20 years: $3869.68

Amount after 30 years: $7612.25

1. Read sections 3.1-3.6 and 3.16 of the textbook. **Write down any questions you have about the reading or anything you find interesting about it, to discuss in class.** Don’t turn in your questions with the homework—bring them to class and ask there. 😊 I’ve put the code files into Blackboard for you.