Csci 1523 **Lab Partner 1(Print):** _____
Inclass Laboratory 2A **Lab Partner 2(Print):** _____

This lab contains 5 pages (including this cover page) and 8 exercises. Check to see if any pages are missing. Enter all requested information on the top of this page, and put your initials on the top of every page, in case the pages become separated.

You may use your books, notes, calculator or internet sources while completing this laboratory.

Please try to answer the sections clearly and PRINT your answers legibly Please follow these guidelines when completing the sections:

You will work as a team during the exercise during our class meeting time.

Laboratory Exercises

1. Exponential notation in Python. Given the numbers shown below write them out in the exponential notation of Python. Leave only one significant digit to the left of the decimal point.
   (a) 4580.5034

   .....

   .....

   (b) 0.00000046004

   .....

   .....

   (c) 50000402.00006

   .....

   .....

2. What are the limits of precision in floating point variables in Python?

3. Given: result = 45634.192837
   (a) Write out the `format` statement that would print out result to 3 decimal places.

   .....

   .....

   (b) In the space provided below write out a Python script that assigns the value to *result* and prints it according to the instructions in part a.

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   (c) Using the IDLE environment on your desktop create a Python script that implements your code shown in part b. Call your instructor to review your code when done.

4. Printing strings to the terminal:

   (a) Write up a Python script that uses the `print` function to print out a single string variable that results in the the following output:

   John Doe
   123 Main Street
   St. Paul, MN 55102

   (b) Using your code from part a, develop a Python script which does this from within IDLE.

5. Variable assignments.

Listing 1: Simple python script

```
# The following statements are a short python script
# for illustration
num = 0
k = 5
num1 = num + k * 2
num2 = num + k * 2
print("Num 1 ", num1)
print("Num 2 ", num2)
print(num1 == num2)
```

   (a) Fill in the values below:

      i. The value of num1 is : _____

      ii. The value of num2 is : _____

   (b) Using the function `id`, do `id(num1)` and `id(num2)` return the same value? Ex-

plain below.

6. Which of the following operators can be used as both a unary and binary operator?
   A. +
   B. -
   C. *
   D. /
7. Write the **exact** result of each of the following operations in the space provided:
   (a) 13 / 6.0
   (b) 21 // 10.0
   (c) 25 // 10
8. Write a Python program that prompts the user for two floating-point values and displays the result of the first number divided by the second number with exactly six decimal places displayed.

(a) Write out your code in the space provided below:

(b) Write the program in IDLE and call your instructor when it is complete.