**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Session: \_\_\_\_**

**Programming I**

**Lab Exercise 1.17.2024**

1. Write a Python program to get the third side of right triangle from two given sides.
2. Write a Python program to find heights of the top three building in descending order from eight given buildings.    
   **Input:**  
   0 <= height of building (integer) <= 10,000  
   Input the heights of eight buildings:  
   25  
   35  
   15  
   16  
   30  
   45  
   37  
   39

**Output:**   
Heights of the top three buildings:  
45  
39  
37

1. Write a Python program to count the number of carry operations for each of a set of addition problems.  According to Wikipedia " In elementary arithmetic, a carry is a digit that is transferred from one column of digits to another column of more significant digits. It is part of the standard algorithm to add numbers together by starting with the rightmost digits and working to the left. For example, when 6 and 7 are added to make 13, the "3" is written to the same column and the "1" is carried to the left".
2. Write a Python program to check whether three given lengths (integers) of three sides form a right triangle. Print "Yes" if the given sides form a right triangle otherwise print "No".    
   **Input:**  
   Integers separated by a single space.  
   1 <= length of the side <= 1,000

**Output:**  
Input three integers(sides of a triangle)  
8 6 7  
No

1. Write a Python program which solve the equation:    
   ax + by = c  
   dx + ey = f

Print the values of x, y where a, b, c, d, e and f are given.

**Input:**  
a,b,c,d,e,f separated by a single space.  
(-1,000 <= a,b,c,d,e,f <= 1,000)

**Output:**   
Input the value of a, b, c, d, e, f:  
5 8 6 7 9 4  
Values of x and y:  
-2.000 2.000