**Joe Herrera**

**CS117**

**10/10/2016**

**LAB 2**

a)

i. x = 7 + 3 \* 6 / 2 – 1

x = 3 \* 6 = 18 / 2 = 9 + 7 = 16 – 1 = 15

ii. x = 2 % 2 + 2 \* 2 – 2 / 2

x = 2 \* 2 = 4 – 2/2 = 3 + 2 % 2 = 3

iii. x = ( 3 \* 9 \* ( 3 + ( 9 \* 3 / 3 ) ) )

x = 9 \* 3 = 27 / 3 = 9 + 3 = 12 (3 \* 9 = 27) = 324

b)

*'''  
Purpose: Practice the use of mathematical operators and their precedence.  
Programmer: Joe Herrera  
CS117 Section 1610 CS13-01  
Lab 2 Part 2  
'''*

*'''  
Purpose: Practice the use of mathematical operators and their precedence.  
Programmer: Joe Herrera  
CS117 Section 1610 CS13-01  
Lab 2 Part 2  
'''***def** main():  
 *# Prompt the user to enter three numbers* print(**"Input three different integers separated by <enters>:"**)  
 number1 = int(input())  
 number2 = int(input())  
 number3 = int(input())  
  
 *# Compute Sum* sum = (number1 + number2 + number3)  
  
 *# Compute Avg* average = (number1 + number2 + number3) / 3  
  
 *# Compute Product* product = (number1 \* number2 \* number3)  
  
 *# Compute Smallest* smallest = min(number1, number2, number3)  
  
 *# Compute Largest* largest = max(number1, number2, number3)  
  
 *# Display Results* print(**"\nSum is"**, sum)  
 print(**"Average is"**, average)  
 print(**"Product is"**, product)  
 print(**"Smallest is"**, smallest)  
 print(**"Largest is"**, largest)  
  
main()

**results:**

Input three different integers separated by <enters>:

13

27

14

Sum is 54

Average is 18.0

Product is 4914

Smallest is 13

Largest is 27

Input three different integers separated by <enters>:

3

6

9

Sum is 18

Average is 6.0

Product is 162

Smallest is 3

Largest is 9

Input three different integers separated by <enters>:

1

2

3

Sum is 6

Average is 2.0

Product is 6

Smallest is 1

Largest is 3

Input three different integers separated by <enters>:

4

8

12

Sum is 24

Average is 8.0

Product is 384

Smallest is 4

Largest is 12

c)

code:

*'''  
Purpose: Practice the use of mathematical operators and their precedence.  
Programmer: Joe Herrera  
CS117 Section 1610 CS13-01  
Lab 2 Part 3  
'''***import** math  
**def** main():  
 *# Prompt user to enter radius* radius = float(input(**"Enter a value for radius: "**))  
  
 *# Compute area* area = radius \* radius \* math.pi  
  
 *# Compute diameter* diameter = radius \* 2  
  
  
 *# Compute circumference* circumference = diameter \* math.pi  
  
 *#Display results* print (**"The area for the circle of radius"**, radius, **"is"**, area)  
 print (**"The diameter for the circle of radius"**, radius, **"is"**, diameter)  
 print (**"The circumference for the circle of radius"**, radius, **"is"**, circumference)  
  
main()

**results:**

Enter a value for radius: 2.5

The area for the circle of radius 2.5 is 19.634954084936208

The diameter for the circle of radius 2.5 is 5.0

The circumference for the circle of radius 2.5 is 15.707963267948966

Enter a value for radius: 5

The area for the circle of radius 5.0 is 78.53981633974483

The diameter for the circle of radius 5.0 is 10.0

The circumference for the circle of radius 5.0 is 31.41592653589793

Enter a value for radius: 7

The area for the circle of radius 7.0 is 153.93804002589985

The diameter for the circle of radius 7.0 is 14.0

The circumference for the circle of radius 7.0 is 43.982297150257104

Enter a value for radius: 10

The area for the circle of radius 10.0 is 314.1592653589793

The diameter for the circle of radius 10.0 is 20.0

The circumference for the circle of radius 10.0 is 62.83185307179586

d)

code:

*'''  
Purpose: Practice the use of mathematical operators and their precedence.  
Programmer: Joe Herrera  
CS117 Section 1610 CS13-01  
Lab 2 Part 4  
'''***def** main():  
 *# Prompt user to enter number* num = int(input(**"Enter a number: "**))  
   
 *#determing whether number is odd or even using % operator* **if** num % 2 == 0:  
 **print "You have entered an even number."  
 else**:  
 **print "You have entered an odd number."**main()

**results:**

Enter a number: 3

You have entered an odd number.

Enter a number: 2

You have entered an even number.

Enter a number: 11

You have entered an odd number.

Enter a number: 20

You have entered an even number.