**Week 6 class activity 1**

**# Q1**

Given the following **Countdown while loop**:

def countdown(n):   
  while n > 0:   
    print (n)   
    n = n-1   
  print ("Blastoff!")

num = \_int(input(‘Please type a positive integer: ’))

countdown(num)

def countdown(n):  
 for i in range(n, 0, -1)

print(n)

print(‘Blastoff!’)

***"While n is greater than 0, continue displaying the value of n and then reducing the value of n by 1. When you get to 0, display the word Blastoff!"***

**'''For this task, you will write the main program that makes use of the function. Then convert the function to use for loop'''**

num = \_int(input(‘Please type a positive integer: ’))\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ #Get a number greater than zero (positive integer) from the user

\_\_countdown(num)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ #add a function call

**# Q2**

***'''What does this program below do?’’’***

i = 1

while i <= 6:

print (2\*i, end =" ")

i = i + 1

print()

Result: 2 4 6 8 10 12

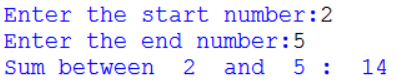
for i in range(1, 7, 1):

print (2\*i, end =" ")

***'''Convert the following while loop into a for loop’’’***

**# Q3**

Using for loop, write a complete Python function to compute a finite sum. Your function must accept two inputs (start and end numbers). Then, it computes and displays the sum of all numbers between start and end. Review the following sample output.



**start\_int = int(input(“Please type the starting integer: “))**

**end\_int = int(input(“Please type the ending integer: “))**

**int\_sum = 0**

**for i in range(start\_int, end\_int + 1, 1):**

**int\_sum += i**

**print(int\_sum)**

**# Q4**

1. Write down the output of the following Python statements. If a statement results in an error, write ‘error’ and explain briefly what error is. Do NOT use the Python IDLE to solve them.

|  |  |
| --- | --- |
| **Python statements** | **Output** |
| print(9 + 5 -3) | 11 |
| print ((2+3)\*2 + 10) | 20 |
| a = 10  while a < 13:  print("yes")  a = a + 1  print("no") | yes  yes  yes  no |
| n = 45  x = 7  for i in range(x, n, x\*2):  print(i) | 7  21  35 |
| a = 53  while a > 51:  a = 51  b = a  c = 50 + 1  if (a!=b or b==c):  c = a - 1  print (c)  else:  print (c) | 50 |

**# Q5**

Logical operators: Based on the following code, write the output of the code.

Your answers:

False

True

True

False

True

True

True

True

x = -2

y = 10

z = -6

print (not (x==-2))

print (y == 10)

print (x == -2 or y == -10)

print (x == 10 and z == 6)

print ((x == 4 or y ==10) and z == -6)

print (not x == 4 and z == -6)

print (not (x == 10) and not (y ==-10))

print (bool(0) or bool(1))