Python assignments

1. even or odd

def evenorodd(number):

if number%2==0:

return 'even'

else:

return 'odd'

evenorodd(5)

2. maximum of two numbers

def maxOfTwo(num1,num2):

if num1>num2:

return num1

else:

return num2

maxOfTwo(5,6)

3. Leap year checker

def isLeapYear(year):

if (year%4==0 and year%100!=0 or year%400==0):

return 'leap year'

else:

return 'Not leap year'

isLeapYear(1900)

4. factorial Calculator

def factorialCalculator(num):

if num==1:

return num

else:

return num\*(factorialCalculator(num-1))

factorialCalculator(3)

5. greatest common divisor

def gcd(a,b):

while b!=0:

a,b = b,a%b

return a

gcd(3,6))

6. absolute value

def absoluteValue(num):

if num<0:

return -num

else:

return num

absoluteValue(-4)

7. temperature converter

def convertTemp(celcius):

Farenheit = (celcius\*(9/5))+32

return Farenheit

convertTemp(30)

8.Grade calculator

def calculateGrade(score):

if score >= 90:

return 'A'

elif score >= 80:

return 'B'

elif score >=70:

return 'C'

elif score >= 60:

return 'D'

elif score <= 59:

return 'F'

calculateGrade(89)

9.calculate sum of squares

def sumOfSquares(n):

sum = 0

for number in range(0,n+1):

sum += number\*number

return sum

sumOfSquares(4)

10.Quadratic equation solver

def solveQuadratic(a,b,c):

discriminant = b\*\*2-4\*a\*c

if discriminant > 0:

root1 = (-b+(discriminant)\*\*0.5/(2\*a))

root2 = (-b-(discriminant)\*\*0.5/(2\*a))

return (root1,root2)

elif discriminant == 0:

root = -b/2\*a

return (root,root)

elif discriminant < 0:

return 'None'

solveQuadratic(0,2,1)