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2 # Lab 1
3 # Due date: 8/26/18
4 #Description: this assignment explores the different math functions that you can use with Python.
5 # examples include finding the circumference of a circle
6
7 # question 2.1 write a function to compute the circumference of a circle
8 # with a radius of r. use r as the parameter to the function. use pi from the math module
9
10 import math
11
12 def computeCircumference(r):
13     rad=r
14     circumference=2*math.pi*rad
15     # this will give you the circumference
16     print (circumference)
17
18
19 # question 2.2 write a function that computes the area of a circle with a radius of r. Use r as
20 # the parameter to the function. Use pi from the math module.
21
22 def compute_Area(r):
23     rad=r
24     area=math.pi*rad**2
25     # this will give you the circumference when you run the code
26     print (area)
27
28
29 # question 2.3
30 #Write a function that computes the volume of a sphere with a radius of r. Use r as the parameter to the function.
31 # Use pi from the module
32
33 def compute_Sphere_Volume(r):
34     rad=r
35     volume=(4/3)*math.pi*rad**3
36     #this will give you the circumference of the sphere
37     print(volume)
38
39 #this will run your programs
40 def main():
41
42     #this will run exercise 2.1
43     computeCircumference(int(input("Enter the radius of the circle:  ")))
44     #this will run exercise 2.2
45     compute_Area(int(input("Enter the Area:  ")))
46     #this will run exercise 2.3
47     compute_Sphere_Volume(int(input("Enter the Radius of the Sphere:  ")))
48 main()
49
50 #The main() at the bottom is necessary to get your program to run

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## Results

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Enter the radius of the circle:  3
18.84955592153876

Enter the Area:  2
12.566370614359172

Enter the Radius of the Sphere:  2
33.510321638291124

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