Name-Surname: Chiho Li ID: 64011378

Introduction to Computers and Programming, SE Programme

Direction Lab #2

16th August 2021

1. Given w = 2, x = 3, y = 4, z = 5, write a Python expression to express $x^3 + y * \frac{z}{2} - w$, and write down the answer.

```
w = 2
x = 3
y = 4
z = 5

formula = (x * x * x) + y * (z / 2) - w
answer = formula
print(answer)
```

y

2. Write a Python program that reads in the radius and length of a cylinder and computes its area and volume using the following formulas.

area = pi * radius * radius
volume = area * length

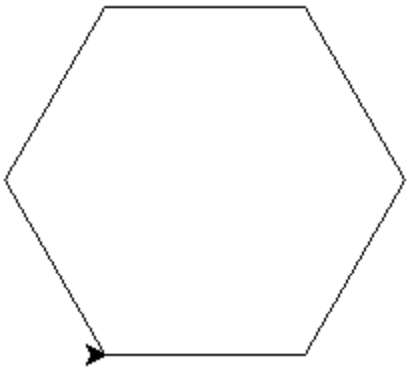
```
radius = int(input("Enter radius: "))
length = int(input("Enter length: "))
pi = float(3.14)

area = radius * radius * pi
volume = area * length

print(area)
print(volume)
```

y

3. Please use turtle module and write Python statements to draw a shape below of size 100.

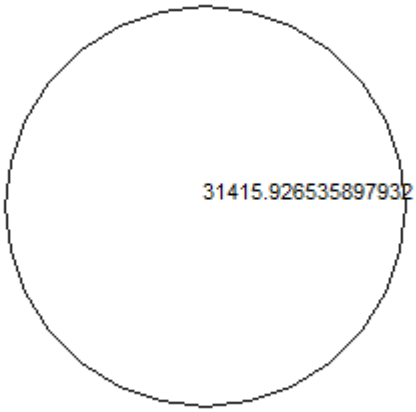


Size 100

```
import turtle
t = turtle.Turtle()
t.forward(100)
t.left(60)
t.forward(100)
t.left(60)
t.forward(100)
t.left(60)
t.forward(100)
t.left(60)
t.forward(100)
t.left(60)
t.forward(100)
t.left(60)
turtle.done()
```

y

4. Write a Python program that prompts the user to enter the **center** and the **radius** of a circle, and then displays the circle and its area as shown. In this example, it shows a circle of radius 100.




```
import turtle
t=turtle.Turtle()

radius = int(input("Enter radius: "))
t.circle(radius)
area = radius*radius*3.14
t.write(area)
turtle.done()
```

y