

#Lab Exercise - 1

#Que1: WPP which accept the radius of a circle from the user & compute the area.

Sample output : r=1.1 , Area = 3.8013271108436504

```
import math
r = float(input("Enter the radius :"))
a = math.pi*r**2
print("The area of circle is :",a)
```

#Que2: Temperature of a city in Fahrenheit degrees is input through the keyboard.

WAP to convert this temperature into Centigrade degrees.

```
fah = int(input("Temperature in Fahrenheit : "))
cen = (fah-32)*5/9
print("Conversion from Fahrenheit to Centigrade :",cen)
```

#Que3: WPP to make a simple calculator that can add, subtract, multiply and divide.

```
x = int(input("Enter the first number : " ))
y = int(input("Enter the second number : " ))
a = x+y
s = x-y
m = x*y
d = x/y
print("Addition :",a,'\n'"Subtraction :",s,'\n'"Multiplication :",m,'\n'"Division
:',d)
```

#Que4: WPP to calculate the square root.

```
import math
a = int(input("Enter the number : "))
b = math.sqrt(a)
print("The square root is :",b)
```

#Que5: WPP to Solve the quadratic equation $ax^2 + bx + c = 0$

Coefficients a, b and c are provided by the user.

```
import cmath
a = int(input("Enter the value of a :"))
b = int(input("Enter the value of b :"))
c = int(input("Enter the value of c :"))
z = b**2-4*a*c
sol1 = (-b+cmath.sqrt(z))/2*a
sol2 = (-b-cmath.sqrt(z))/2*a
print("Solution of 1 quadratic equation is : ",sol1)
print("Solution of 2 quadratic equation is : ",sol2)
```

#Que6: WPP to find area of triangle

#Three sides of triangle a,b and c are provided by user.

```

import math
a = int(input("Enter the 1 side of triangle :"))
b = int(input("Enter the 2 side of triangle :"))
c = int(input("Enter the 3 side of triangle :"))
s = (a+b+c)/2
Area = math.sqrt(s*(s-a)*(s-b)*(s-c))
print("Area of triangle is :",Area)

```

#Que7: If a five-digit number is input through the keyboard,WAP to calculate the sum of its digits without using any loop.(Hint: Use the modulus operator '%')

```

a = int(input("Enter the five digit number :"))
sum = 0
A = a%10
B = a//10
sum = sum + A

C = B%10
D = B//10
sum = sum + C

E = D%10
F = D//10
sum = sum + E

G = F%10
H = F//10
sum = sum + G

I = H%10
J = H//10
sum = sum + I
print("Sum of five digit number is :",sum)

```

#Que8: WPP to print the following string in a specific format.

```

print("""Twinkle, twinkle, little star,
      \tHow I wonder what you are!
      \t\tUp above the world so high,
      \t\tLike a diamond in the sky.
Twinkle, twinkle, little star,
      \tHow I wonder what you are""")

```

#Que9: WPP to display your details like name,age,address in three different lines.

```

print("""Name : Madhura Mohod\nAge : 23\nAddress : Amravati,Maharashtra""")

```

