

In [1]:

Module-2 Python Assignment-3

1:Write a python program to find area of circle using math function

```
import math
r=float(input("Enter radius of circle:"))
area=math.pi*r*r
print("Area of circle:",area)
```

Enter radius of circle:2  
Area of circle: 12.566370614359172

In [2]:

2:Write a python program to find area of regular polygon using math function

```
import math
s=int(input("Enter no.of sides:"))
l=float(input("Enter the length of each side:"))
area=s*(l**2)/(4*math.tan(math.pi/s))
print("Area of polygon of",s,"sides:",area)
```

Enter no.of sides:4  
Enter the length of each side:4  
Area of polygon of 4 sides: 16.000000000000004

In [3]:

3:Write a python program to find area of segment of a circle formula using math function

```
import math
r=float(input("Enter radius of circle:"))
a=float(input("Enter angle:"))
if a>=360:
    print("Angle is not possible")
else:
    area=(math.pi*(r**2))*(a/360)
    print("Area of segment:",area)
```

Enter radius of circle:4  
Enter angle:45  
Area of segment: 6.283185307179586

In [7]:

5:Write a python program to generate random numbers between 1,10000 and difference between each random number is 50

```
import random
l1=[100,1,2,3,30,40,"hai","hello"]
random.shuffle(l1)
print(l1)
```

[30, 40, 3, 100, 2, 'hai', 1, 'hello']

In [8]:

6:Write a python program by using math module to find

```
a:sin(60)

import random
n=int(input("Enter no.of numbers to generate:"))
i=0
while i<n:
    print(random.randrange(1,10000,50))
    i+=1
```

Enter no.of numbers to generate:5  
7851  
8101  
5951  
8901  
4151

In [9]:

b:cos(pi)

```
import math
print(math.sin(60))
```

-0.3048106211022167

In [10]:

c:tan(90)

```
import math
print(math.cos(math.pi))
```

-1.0

In [11]:

d:angle of sin(0.8660254037844386)

```
import math
print(math.tan(90))
```

-1.995200412208242

In [12]:

e:5^8

```
import math
print(math.sin(0.8660254037844386))
```

0.7617599814162892

In [13]:

f:square root of 400

```
import math
print(math.pow(5,8))
```

390625.0

In [14]:

g:the value of 5^e

```
import math
print(math.sqrt(400))
```

20.0

In [15]:

h:the value of log(1024),base(2)

```
import math
print(math.pow(5,math.e))
```

79.43235916621322

In [16]:

i:the value of log(1024),base(10)

```
import math
print(math.log(1024,2))
```

10.0

In [17]:

```
import math
print(math.log(1024,10))
```

3.0102999566398116

In [18]:

j:The floor and ceiling value of 23.56

```
import math
print("Floor value of 23.56:",math.floor(23.56))
print("Ceiling value of 23.56:",math.ceil(23.56))
```

Floor value of 23.56: 23  
Ceiling value of 23.56: 24

In [ ]: