Module-2 Python Assignment-3

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

In [1]:

```
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
```

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

In [3]:

```
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
```

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

In [5]:

```
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
```

4:Write a python program to shuffle list l1=[100,1,2,3,30,40,"hai","hello"]

In [11]:

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

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

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

In [2]:

```
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
8001
8551
4901
51
5601
```

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

a:sin(60)

In [11]:

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

```
-0.3048106211022167
```

b:cos(pi)

In [5]:

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

```
-1.0
```

c:tan(90)

In [6]:

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

```
-1.995200412208242
```

d:angle of sin(0.8660254037844386)

In [13]:

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

```
0.7617599814162892
```

e:5^8

In [16]:

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

```
390625.0
```

f:square root of 400

In [17]:

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

```
20.0
```

g:the value of 5^e

In [18]:

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

```
79.43235916621322
```

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

In [19]:

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

```
10.0
```

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

In [20]:

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

```
3.0102999566398116
```

j:The floor and ceiling value of 23.56

In [21]:

```
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 [ ]:

```

```