In [5]:

```
import math
def area(r):
    a=math.pi*r*r
    print('area:',a)
area(int(input("radius:")))
```

```
radius:5
area: 78.53981633974483
```

In [6]:

```
from math import tan, pi
n_sides = int(input("Input number of s
ides: "))
s_length = float(input("Input the leng
th of a side: "))
p_area = n_sides * (s_length ** 2) / (
4 * tan(pi / n_sides))
print("The area of the polygon is: ",p
_area)
```

```
Input number of sides: 5
Input the length of a sid
e: 45
The area of the polygon i
s:  3483.966736192658
```

In [18]:

```
import math
pi=3.14159
def area_of_segment(radius,angle):
    area_of_sector = pi * (radius * ra
dius) * (angle / 360)
    area_of_traingle=1 /2 *(radius * r
adius) *math.sin((angle * pi) / 180)
    return area_of_sector - area_of_tr
aingle;
radius=10.0
angle=90.0
print("area of minor segment=",area_of
_segment(radius,angle))
print("area of major segment=",area_of
_segment(radius,(360-angle)))
```

```
area of minor segment= 28.
53975000004401
area of major segment= 28
5.6192499996039
```

In [13]:

```
import random
l1=[100,1,2,3,30,'hai','hello']
print("the given list:",l1)
random.shuffle(l1)
print("the shuffled list is:",(l1))
```

```
the given list: [100, 1,
2, 3, 30, 'hai', 'hello']
the shuffled list is: ['ha
i', 30, 'hello', 100, 2,
3, 1]
```

In [19]:

```
import random
print("random no of list is:")
print(random.choice(range(1,10000)))
print("random no from range is:")
print(random.randrange(1,10000,50))
```

```
random no of list is:
1738
random no from range is:
2201
```

In [24]:

```
import math
print("sin60:",math.sin(60))
print("cos(pi):",math.pi)
print("tan90:",math.tan(90))
print("angle of 0.8660:",math.degrees(
math.sin(0.8660254837844386)))
print("5^B:",math.pow(5,8))
print("square root if 400 is:",math.sq
rt(400))
print("the value of 5^e:",math.pow(5,m
ath.e))
print("the value of log(1204).base 2:"
,math.log2(1024))
print("the value of log(1024).base 1
0:",math.log10(1024))
print("the floor value of 23.56:",math
.floor(23.56))
print("the ceiling value of 23.56:",ma
th.ceil(23.56))
```

```
sin60: -0.3048106211022167
cos(pi): 3.141592653589793
tan90: -1.995200412208242
angle of 0.8660: 43.645634
90668574
5^B: 390625.0
square root if 400 is: 20.
0
the value of 5^e: 79.43235
916621322
the value of log(1204).bas
e 2: 10.0
the value of log(1024).bas
e 10: 3.010299956639812
the floor value of 23.56:
23
the ceiling value of 23.5
6: 24
```

In [ ]:

```

```

In [ ]:

```

```