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

```
def findArea(r):
    import math
    r = float(int(input("Enter the radius circle: ")))
    area = math.pi * r * r
    Print ("%.2f" % area)
```

Output: Enter the radius of Circle: 4

50.26.

2 Write a program to find Area of Regular Polygon using math function.

```
from math import tan, pi
const = 9.8
len = float(input("Enter the length:"))
num = int(input("Enter num of sides:"))
area = ((num * len ** 2) / (4 * tan(pi / num)))
Print ("%.2f" % area).
```

Output: Enter the length: 4
Enter num of sides: 4
16.000.

3. Write a program to find Area of a segment of a circle formula using math function.

```
import math
Pi = 3.14159
r = float(int(input("Enter a radius")))
Angle = 90.0
Area = 1/2 x r**2 x ((Pi/180)θ - Sinθ)
Print ("Area of minor Segment =",
       area of segment (radius, angle))
```

Print ("Area of major segment ="

area of segment (radius, (360 - angle)))

Print = ("%.2f", area)

Output enter a radius = 10

Area of minor segment = 28.53

Area of major segment = 285.61

4) write a Python program to shuffle List

l1 = [100, 1, 2, 3, 30, 40, "hai", "hello"]

from random import shuffle

l1 = [100, 1, 2, 3, 30, 40, "hai", "hello"].

Shuffle (l1)

Print (l1)

Output

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

5) write a program to generate random numbers between 1, 10000 and difference between each random number is 50.

Import random

Print ("Generate random numbers between 1 and 10000)

num1 = random.randrange (50)

Print ("Random integer:", num1)

Output :- Random integer : 21.

6. Write a Python program by using math module to find.

(i) Sin 60°

~~Math(sin 60°)~~.

```
from math import Sin
Sine-60 = sin(60)
Print("The Sine of 60 =", Sine-60)
```

Output The Sine of 60 = -0.30481062

(ii) cos(pi)

```
import math
a = math.pi
Print("The value of Cosine of pi is:", End=" ")
Print (math.cos(a))
```

Output :-

The value of Cosine of pi is: -1.0

(iii) tan 90°.

```
from math import tan
tan_90 = tan(90).
Print ("The tan of 90 =", tan-90)
```

output.

-1.995200 41.

iv) angle of sin(0.866025)

sin(?) = 0.866025

math.asin(0.866025)

Output : 1.047191551

v)

5 1 8

math.pow(5,8)

Output: 390,625

sqrt of 400

math.sqrt(400)

Output: 20

5 ^ e

math.~~sqrt~~ pow (5, math.e)

output: 79.43 2359.

log (1024) base 10 and 2.

math.log 10(1024)

math.log 2 (1024)

output 4.010

3.311

floor and ciel.

math.ceil (23.56)

math.floor (23.56).

Output: 24

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