#import math

r = float(input('Enter the radius of the circle :'))

area = math.pi \* r \* r

print("Area of the circle is : %.2f" %area)

O/p:Enter the radius of the circle :3.5

Area of the circle is : 38.48

#from math import tan, pi

n\_sides = int(input("Input number of sides: "))

s\_length = float(input("Input the length of a side: "))

p\_area = n\_sides \* (s\_length \*\* 2) / (4 \* tan(pi / n\_sides))

print("The area of the polygon is: ",p\_area)

O/p:Input number of sides: 4

Input the length of a side: 20

The area of the polygon is: 400.00000000000006

#import math

pi=3.142

def segmentarea(r,angle):

areaofsector = pi \* (r \* r) \* (angle / 360)

areaoftriangle = 1 / 2 \*(r \* r) \*math.sin((angle \* pi) / 180)

return areaofsector - areaoftriangle;

r=int(input("enter the radius"))

angle=int(input("enter the angle"))

print("area of minor segment=",segmentarea(r,angle))

print("area of major segment=",segmentarea(r,(360-angle)))

O/p:enter the radius10

enter the angle90

area of minor segment= 28.550001037069357

area of major segment= 285.649990666376

#from random import shuffle

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

shuffle(l1)

print(l1)

O/p:[3, 2, 30, 'hello', 40, 'hai', 100, 1]

#import random

def Rand(start, end, num):

res = []

for j in range(num):

res.append(random.randint(start, end))

return res

num = 50

start = 1

end = 10000

print(Rand(start, end, num))

O/p:[2465, 9330, 8440, 7688, 7543, 3492, 522, 3776, 9456, 9772, 5428, 5229, 1607, 3019, 8719, 9472, 5415, 4251, 7276, 1459, 8284, 6079, 7314, 4544, 2183, 4674, 2784, 2178, 9708, 8000, 9250, 274, 2405, 8590, 6707, 8586, 3188, 1954, 5118, 6397, 8856, 7331, 6147, 4582, 5119, 883, 5997, 4062, 2290, 1570]

#import math

sine=math.sin(60)

print(sine)

o/p: -0.3048106211022167

import math

co=math.cos(pi)

print(co)

o/p: -0.9999999170344522

import math

ta=math.tan(90)

print(ta)

o/p: -1.995200412208242

import math

print(math.sin((0.86602540378443860009)))

O/p:0.7617599814162892

print(5\*\*8)

o/p:390625

print(400\*\*0.5)

o/p:20.0

import math

print(5\*(math.e))

o/p:13.591409142295225

import math

print(math.log2(1024))

o/p:10.0

import math

print(math.log10(1024))

o/p:3.010299956639812

import math

print(math.floor(23.56))

print(math.ceil(23.56))

o/p:23

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