**Python Random Module**

Python offers the random module to generate random numbers or to pick a random item from an iterator.

First we need to import the random module. For example,

import random

print(random.randrange(10, 20))

list1 = ['a', 'b', 'c', 'd', 'e']

# get random item from list1

print(random.choice(list1))

# Shuffle list1

random.shuffle(list1)

# Print the shuffled list1

print(list1)

# Print random element

print(random.random())

[Run Code](https://www.programiz.com/python-programming/online-compiler)

**Output**

15

a

['d', 'b', 'c', 'e', 'a']

0.6716121217631744

To learn more about the random module, visit Python [Random Module](https://www.programiz.com/python-programming/modules/random).

**Python Mathematics**

Python offers the math module to carry out different mathematics like trigonometry, logarithms, probability and statistics, etc. For example,

import math

print(math.pi)

print(math.cos(math.pi))

print(math.exp(10))

print(math.log10(1000))

print(math.sinh(1))

print(math.factorial(6))

[Run Code](https://www.programiz.com/python-programming/online-compiler)

**Output**

3.141592653589793

-1.0

22026.465794806718

3.0

1.1752011936438014

720

Here is the full list of functions and attributes available in the [Python math module](https://www.programiz.com/python-programming/modules/math).

Before we wrap up, let’s put your knowledge of Python Numbers, Type Conversion and Mathematics to the test! Can you solve the following challenge?

Challenge:

Write a function to compute the area of a circle rounded off to two decimal places.

* The area of a circle is calculated using the formula pi \* radius^2.
* For example, if radius = 5, the expected output is **78.54**.

1

2

import math

def calculate\_area(radius):

Check Code