Code:

import numpy as np

import pandas as pd

from scipy import stats

import math

print('--------array creation---------------')

arr=[1, 2, 3, 4, 5]

print(arr)

print('-------------------------------------')

print('--------numpy.arange method----------')

print("A\n", np.arange(4).reshape(2, 2), "\n")

print("A\n", np.arange(4, 10), "\n")

print("A\n", np.arange(4, 20, 3), "\n")

print('-------------------------------------')

print('--------math operations----------')

in\_array = [0, math.pi / 2, np.pi / 3, np.pi]

print ("Input array : \n", in\_array)

Sin\_Values = np.sin(in\_array)

print ("\nSine values : \n", Sin\_Values)

print('-------------------------------------')

print('--------matrix----------')

gfg = np.matrix('[64, 1; 12, 3]')

# applying matrix.resize() method

geeks = gfg.resize((1, 4))

print(geeks)

print('-------------------------------------')

print('--------maths operations----------')

arr1 = np.arange(4, dtype = np.float\_).reshape(2, 2)

print('First array:')

print(arr1)

print('\nSecond array:')

arr2 = np.array([12, 12])

print(arr2)

print('\nAdding the two arrays:')

print(np.add(arr1, arr2))

print('\nSubtracting the two arrays:')

print(np.subtract(arr1, arr2))

print('\nMultiplying the two arrays:')

print(np.multiply(arr1, arr2))

print('\nDividing the two arrays:')

print(np.divide(arr1, arr2))

Output:

--------array creation---------------

[1, 2, 3, 4, 5]

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--------numpy.arange method----------

A

[[0 1]

[2 3]]

A

[4 5 6 7 8 9]

A

[ 4 7 10 13 16 19]

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--------math operations----------

Input array :

[0, 1.5707963267948966, 1.0471975511965976, 3.141592653589793]

Sine values :

[0.00000000e+00 1.00000000e+00 8.66025404e-01 1.22464680e-16]

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--------matrix----------

None

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--------maths operations----------

First array:

[[0. 1.]

[2. 3.]]

Second array:

[12 12]

Adding the two arrays:

[[12. 13.]

[14. 15.]]

Subtracting the two arrays:

[[-12. -11.]

[-10. -9.]]

Multiplying the two arrays:

[[ 0. 12.]

[24. 36.]]

Dividing the two arrays:

[[0. 0.08333333]

[0.16666667 0.25 ]]