1.

import numpy as np

a = np.linspace(0, 5, 20)

print(a)

2.

import numpy as np

a = np.arange(1, 51, 1)

b = a.reshape((5, 10))

print(b)

3.

import numpy as np

a = np.array([[2, 2],

[2, 2],

[2, 2]])

b = np.array([[1, 4],

[2, 5],

[3, 6]])

c = a+b

d = a-b

e = a\*b

f = a/b

g = a%b

h = np.transpose(a)

i = np.transpose(b)

print(c)

print(d)

print(e)

print(f)

print(g)

print(h)

print(i)

4.

import numpy as np

a = np.loadtxt('weatherTaipei.txt', skiprows=1,usecols=(1, 2), dtype=int,delimiter=',')

print('最高溫度為',a.max())

print('平均溫度為',a.mean())

5.

import numpy as np

a = np.random.randint(low=5,high=17,size=15)

X = a.reshape((3, 5))

X1 = X[[0,-1]][:,[0,-1]]

np.savetxt('EX3\_2.txt', X1, fmt='%0.0f')

b = np.random.randint(low=5,high=17,size=15)

Y = b.reshape((3, 5))

Z = X+Y

print(X)

print('最大值為',X.max())

print('最小值為',X.min())

print('總和為',X.sum())

print('平均為',X.mean())

print(X1)

print(Y)

print(Z)