**# Ejer 1**

import numpy as np

from matplotlib import pyplot as plt

a = np.random.normal(-5,1,500)

b = np.random.normal(3,0.5,500)

d = (a,b)

plt.hist(d)

**# EJE 2**

import numpy as geek

a = [1,4,5,2,4]

b = [5,1,5,3,1]

c = [1,2,1,2,4]

d = [4,9,4,7,9]

e = [3,8,2,1,3]

f = [5,3,6,2,6]

g = [2,7,9,8,7]

h = [8,9,1,6,2]

i = [3,7,9,8,1]

j = [1,9,8,5,3]

V = geek.hstack((a,b,c,d,e,f,g,h,i,j))

print(" Esta es una mtariz de 5 filas y 10 columnas, concatenadas hrizontalmente")

print(V)

**# EJE 3**

import numpy as geek

a = [1,4,5,2,4]

b = [5,1,5,3,1]

c = [1,2,1,2,4]

d = [4,9,4,7,9]

e = [3,8,2,1,3]

f = [5,3,6,2,6]

g = [2,7,9,8,7]

h = [8,9,1,6,2]

i = [3,7,9,8,1]

j = [1,9,8,5,3]

V = geek.vstack((a,b,c,d,e,f,g,h,i,j))

print("Esta es una matriz 10X5" "\n",V)

**# EJE 4**

import numpy as np

x = 10 \* np.random.random((10,10)) +1

y = 5 \* np.random.random((10,2)) +1

np.dot(x,y)

**# Eje 5**

import numpy as np

x = 5 \* np.random.random((10,10)) +5

np.linalg.inv(x)

**# EJE 6**

import pandas as pd

datos = {

'entero' : range(1,5),

'factor' : ['a','b','c','d'],

'cadena': ['a', 'b', 'c','d']

}

datos = pd.DataFrame(datos)

#new\_datos=datos.assign(Numero=)

city = ['1.2','3.4','4.5','5.6']

datos['city'] = city

print(datos)

**# EJE 7**

df = pd.DataFrame([[4, 9]] \* 3, columns=['A', 'B'])

df.apply(np.sqrt)

#La función np.sqrt() calcula la raíz cuadrada de cada elemento del data frame