# coding=utf-8  
#1. Create a new script called Script12Lab.py.  
#2. Create an array from a range of values from 1 to 20 incrementing by 2  
#3. Print the data type of the array created in #2.  
#4. Print the size of the array created in #2.  
  
def a(n):  
 arr = [] \* 20  
 return list(range(1,n+1,2))  
print(a(20))  
  
import numpy as np  
a = np.arrange(20)  
  
print(a)  
print(a.size)  
#5. Reshape the array created in #2 to 5 Rows and 2 columns  
  
b = a.reshape(5,2)  
print (b)  
#6. Find and print the MAX / MIN / AVG / SUM of each row  
#7. Find and print the MAX / MIN / AVG / SUM of each column  
  
S = np.random.random(20)  
sum(L)  
  
np.min(big\_array), np.max(big\_array)  
print(big\_array.min()), big\_array.max()  
#8. Create a multi-dimensional array consisting of 2 instances of 4 rows and 4 columns full of 0’s.  
e = np.zeros((2,4,4))  
print(e)  
print(e.ndim)  
#9. Create a multi-dimensional array consisting of 4 instances of 5 rows and 3 columns full of random numbers.  
f = np.zeros((4,5,3))  
print(f)  
print(f.ndim)