**17. Create two 2D arrays using array object and**

**a. Add the 2 matrices and print it**

**b. Subtract 2 matrices**

**c. Multiply the individual elements of matrix**

**d. Divide the elements of the matrices**

**e. Perform matrix multiplication**

**f. Display transpose of the matrix**

**g. Sum of diagonal elements of a matrix**

import numpy as np  
a=np.array([[2,4],[4,6]])  
b=np.array([[5,2],[3,6]])  
print("matrix addition is :")  
c=a+b  
print(c)  
print("matrix substraction is :")  
d=a-b  
print(d)  
print("element wise multiplication")  
e=np.multiply(a,b)  
print(e)  
print("division is :")  
f=np.divide(a,b)  
print(f)  
print("matrix multiplication:")  
g=np.matmul(a,b)  
print(g)  
print("transpose of multiplied matrix")  
h=np.transpose(g)  
print("diagonal elements")  
i=np.diagonal(g)  
print(i)  
print("sum of diagonal elements")  
print(sum(i))