**Strassen Matrix Practical**

**Input:**

# Define Arrays

a = [[1,2],[3,4]]

b = [[4,3],[2,1]]

c = [[0,0],[0,0]]

m1 = (a[0][0] + a[1][1]) \* (b[0][0] + b[1][1])

m2 = (a[1][0] + a[1][1]) \* b[1][0]

m3 = a[0][0] \* (b[0][1] - b[1][1])

m4 = a[1][1] \* (b[1][0] - b[0][0])

m5 = (a[0][0] + a[0][1]) \* b[1][1]

m6 = (a[1][0] - a[0][0]) \* (b[0][0] + b[0][1])

m7 = (a[0][1] - a[1][1]) \* (b[1][0] + b[1][1])

# Assign to m values

c[0][0] = m1 + m4 - m5 + m7

c[0][1] = m3 + m5

c[1][0] = m2 + m4

c[1][1] = m1 - m2 + m3 + m6

print("Matrix values are :", m1, m2, m3, m4, m5, m6 ,m7)

print("Resulting Matrix: ")

print(a)

print(b)

print(c)

**Output:**

