PROGRAM:

import sys

print("enter the dimension of first matrix m\*n and second matrix p\*q")

m,n,p,q=map(int,sys.stdin.readline().split())

if n==p:

print("matrix multiplication:")

print("enter the value of first matrix:")

A=[]

for i in range(0,m):

aitem=[]

for j in range(0,n):

x=int(input())

aitem.append(x)

A.append(aitem)

print("matrix A:")

print('\n'.join([''.join(['{:4}'.format(aitem)for aitem in row])for row in A]))

print("enter the value of second matrix:")

B=[]

for i in range(0,p):

bitem=[]

for j in range(0,q):

x=int(input())

bitem.append(x)

B.append(bitem)

print("matrix B:")

print('\n'.join([''.join(['{:4}'.format(bitem)for bitem in row])for row in B]))

print("matrix C:")

C=[]

for i in range (0,m):

citem=[]

for j in range(0,q):

r=0

for k in range(n):

r+=A[i][k]\*B[k][j]

citem.append(r)

C.append(citem)

print('\n'.join([''.join(['{:4}'.format(citem)for citem in row])for row in C]))

else:

print("n is not equal to p,matrix multiplication is not possible")

OUTPUT:

enter the dimension of first matrix m\*n and second matrix p\*q

2 2 2 2

matrix multiplication:

enter the value of first matrix:

1

3

7

5

matrix A:

1 3

7 5

enter the value of second matrix:

2

6

9

5

matrix B:

2 6

9 5

matrix C:

29 21

59 67