#addition of matrix

r1=int(input("Enter the number of rows :"))

c1=int(input("Enter the number of columns :"))

matrix1=[]

print("Enter the entris row wise :")

for i in range(r1):

    a=[]

    for j in range(c1):

        a.append(int(input()))

    matrix1.append(a)

r2=int(input("Enter the number of rows :"))

c2=int(input("Enter the number of columns :"))

matrix2=[]

print("Enter the entris row wise :")

for i in range(r2):

    a=[]

    for j in range(c2):

        a.append(int(input()))

    matrix2.append(a)

matrix3=[]

for i in range(r2):

    a=[]

    for j in range(c2):

        a.append(matrix1[i][j]+matrix2[i][j])

    matrix3.append(a)

print("Subtraction is :")

print(matrix1)

print(end="+")

print(matrix2)

print(end="=")

print(matrix3)

#subtraction of matrix

r1=int(input("Enter the number of rows :"))

c1=int(input("Enter the number of columns :"))

matrix1=[]

print("Enter the entris row wise :")

for i in range(r1):

    a=[]

    for j in range(c1):

        a.append(int(input()))

    matrix1.append(a)

r2=int(input("Enter the number of rows :"))

c2=int(input("Enter the number of columns :"))

matrix2=[]

print("Enter the entris row wise :")

for i in range(r2):

    a=[]

    for j in range(c2):

        a.append(int(input()))

    matrix2.append(a)

matrix3=[]

for i in range(r2):

    a=[]

    for j in range(c2):

        a.append(matrix1[i][j]-matrix2[i][j])

    matrix3.append(a)

print("Addition is :")

print(matrix1)

print(end="-")

print(matrix2)

print(end="=")

print(matrix3)

#multiplication of matrix

r1=int(input("Enter the number of rows :"))

c1=int(input("Enter the number of columns :"))

matrix1=[]

print("Enter the entris row wise :")

for i in range(r1):

    a=[]

    for j in range(c1):

        a.append(int(input()))

    matrix1.append(a)

r2=int(input("Enter the number of rows :"))

c2=int(input("Enter the number of columns :"))

matrix2=[]

print("Enter the entris row wise :")

for i in range(r2):

    a=[]

    for j in range(c2):

        a.append(int(input()))

    matrix2.append(a)

matrix3=[]

for i in range(r1):

    a=[]

    for j in range(c2):

        sum=0

        for k in range(r2):

            sum=sum+matrix1[i][j]\*matrix2[i][j]

        a.append(sum)

    matrix3.append(a)

print("Multiplication is :")

print(matrix1)

print(end="\*")

print(matrix2)

print(end="=")

print(mat

#transpose of matrix

r1=int(input("Enter the number of rows :"))

c1=int(input("Enter the number of columns :"))

matrix1=[]

print("Enter the entris row wise :")

for i in range(r1):

    a=[]

    for j in range(c1):

        a.append(int(input()))

    matrix1.append(a)

print(matrix1)

transpose=[]

print("Transpose of matrix is :")

for i in range(r1):

    a=[]

    for j in range(c1):

        a.append(matrix1[j][i])

    transpose.append(a)

print(transpose)

rix3)