def add\_matrices(matrix1, matrix2):

result = [[0 for \_ in range(len(matrix1[0]))] for \_ in range(len(matrix1))]

for i in range(len(matrix1)):

for j in range(len(matrix1[0])):

result[i][j] = matrix1[i][j] + matrix2[i][j]

return result

def subtract\_matrices(matrix1, matrix2):

result = [[0 for \_ in range(len(matrix1[0]))] for \_ in range(len(matrix1))]

for i in range(len(matrix1)):

for j in range(len(matrix1[0])):

result[i][j] = matrix1[i][j] - matrix2[i][j]

return result

def multiply\_matrices(matrix1, matrix2):

result = [[0 for \_ in range(len(matrix2[0]))] for \_ in range(len(matrix1))]

for i in range(len(matrix1)):

for j in range(len(matrix2[0])):

for k in range(len(matrix2)):

result[i][j] += matrix1[i][k] \* matrix2[k][j]

return result

def transpose\_matrix(matrix):

result = [[matrix[j][i] for j in range(len(matrix))] for i in range(len(matrix[0]))]

return result

def print\_matrix(matrix):

for row in matrix:

print(row)

# Example matrices

matrix\_a = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]

matrix\_b = [[9, 8, 7], [6, 5, 4], [3, 2, 1]]

# Addition of two matrices

result\_addition = add\_matrices(matrix\_a, matrix\_b)

print("Addition of matrices:")

print\_matrix(result\_addition)

print()

# Subtraction of two matrices

result\_subtraction = subtract\_matrices(matrix\_a, matrix\_b)

print("Subtraction of matrices:")

print\_matrix(result\_subtraction)

print()

# Multiplication of two matrices

result\_multiplication = multiply\_matrices(matrix\_a, matrix\_b)

print("Multiplication of matrices:")

print\_matrix(result\_multiplication)

print()

# Transpose of a matrix

result\_transpose = transpose\_matrix(matrix\_a)

print("Transpose of matrix A:")

print\_matrix(result\_transpose)