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IDLE Shell 3.14.0
File Edit Shell Debug Options Window Help
Python 3.14.0 (tags/v3.14.0:ebf955d, Oct 7 2025, 10:15:03) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/2BSCCSB12/AppData/Local/Programs/Python/Python314/list.py =
>>> [[59, 46], [59, 46], [193, 176], [193, 176], [0, 0], [0, 0]]
>>>
```

```
list.py - C:/Users/2BSCCSB12/AppData/Local/Programs/Python/Python314/list.py (3.14.0)
File Edit Format Run Options Window Help
A A = [[1,2,3],[5,3,1],[7,9,8]]
B = [[3,4],[12,4],[8,14]]
p = len(A)
q = len(A[0])
t = len(B)
z = len(B[0])
if q!=t:
    print("Error! Matrix sizes are not compatible")
    quit()
C = []
for row in range(p):
    curr_row = []
    for col in range(z):
        curr_row.append(0)
    C.append(curr_row)
for i in range(p):
    for j in range(z):
        curr_val = 0
        for k in range(q):
            curr_val += A[i][k]*B[k][j]
        C[i][j] = curr_val
print(C)
```

```
matrix.py - C:/Users/2BSCCSB12/AppData/Local/Programs/Python/Python314/matrix.py (3.14.0)
File Edit Format Run Options Window Help
def input_matrix(rows, cols, matrix_name):
    matrix = []
    print("Enter the elements for matrix (matrix_name) ((rows)x(cols)).")
    for i in range(rows):
        row = []
        for j in range(cols):
            value = int(input(f"Enter element [{i+1}][{j+1}]: "))
            row.append(value)
        matrix.append(row)
    return matrix

p = int(input("Enter the number of rows for matrix A: "))
q = int(input("Enter the number of columns for matrix A: "))

t = int(input("Enter the number of rows for matrix B: "))
z = int(input("Enter the number of columns for matrix B: "))

if q != t:
    print("Error! Matrix sizes are not compatible for multiplication.")
    quit()

A = input_matrix(p, q, "A")
B = input_matrix(t, z, "B")

C = []
for row in range(p):
    curr_row = []
    for col in range(z):
        curr_row.append(0)
    C.append(curr_row)

for i in range(p):
    for j in range(z):
        curr_val = 0
        for k in range(q):
            curr_val += A[i][k] * B[k][j]
        C[i][j] = curr_val

print(C)
```

```
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Python 3.14.0 (tags/v3.14.0:ebf955d, Oct 7 2025, 10:15:03) [MSC v.1944 64 bit (AMD64)] on win32
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>>>
== RESTART: C:/Users/2BSCCSB12/AppData/Local/Programs/Python/Python314/matrix.py
Enter the number of rows for matrix A: 2
Enter the number of columns for matrix A: 2
Enter the number of rows for matrix B: 2
Enter the number of columns for matrix B: 3
Enter the elements for matrix (matrix_name) ((rows)x(cols)):
Enter element [1][1]: 1
Enter element [1][2]: 2
Enter element [2][1]: 3
Enter element [2][2]: 4
Enter the elements for matrix (matrix_name) ((rows)x(cols)):
Enter element [1][1]: 9
Enter element [1][2]: 8
Enter element [1][3]: 7
Enter element [2][1]: 6
Enter element [2][2]: 5
Enter element [2][3]: 4
[[21, 16, 15], [51, 44, 37]]
>>>
```

```
def input_matrix(rows, cols, matrix_name):
    matrix = []
    print("Enter the elements for matrix {matrix_name} ({rows}x{cols}):")
    for i in range(rows):
        row = []
        for j in range(cols):
            value = int(input(f"Enter element [{i+1}][{j+1}]: "))
            row.append(value)
        matrix.append(row)
    return matrix
```

```
p = int(input("Enter the number of rows for matrix A: "))
q = int(input("Enter the number of columns for matrix A: "))
```

```
t = int(input("Enter the number of rows for matrix B: "))
r = int(input("Enter the number of columns for matrix B: "))
```

```
if q != t:
    print("Error! Matrix sizes are not compatible for multiplication.")
    quit()
```

```
A = input_matrix(p, q, "A")
B = input_matrix(t, r, "B")
```

```
C = []
for row in range(p):
    curr_row = []
    for col in range(r):
        curr_row.append(0)
    C.append(curr_row)
```

```
for i in range(p):
    for j in range(r):
        curr_val = 0
        for k in range(q):
            curr_val += A[i][k] * B[k][j]
        C[i][j] = curr_val
```

```
print(C)
```