Your options are:

-----------------

1) Add 2 matrices

2) Subtract 2 matrices

3) Multiply 2 matrices

4) Multiply matrix by a constant

5) Transpose matrix

6) Matrix trace

0) EXIT

Please enter your option: 2

Enter the size of the square matrices: 4

First matrix is:

2 2 5 3

8 5 2 8

9 8 9 7

10 2 4 2

Second matrix is:

1 2 4 5

10 3 1 1

7 10 9 1

5 3 7 4

The resulting matrix is:

1 0 1 -2

-2 2 1 7

2 -2 0 6

5 -1 -3 -2

Command Number 2 completed.

Your options are:

-----------------

1) Add 2 matrices

2) Subtract 2 matrices

3) Multiply 2 matrices

4) Multiply matrix by a constant

5) Transpose matrix

6) Matrix trace

0) EXIT

Please enter your option: 1

Enter the size of the square matrices: 3

First matrix is:

1 1 8

7 10 5

2 4 7

Second matrix is:

1 6 2

3 10 3

10 5 9

The resulting matrix is:

2 7 10

10 20 8

12 9 16

Command Number 1 completed.

Your options are:

-----------------

1) Add 2 matrices

2) Subtract 2 matrices

3) Multiply 2 matrices

4) Multiply matrix by a constant

5) Transpose matrix

6) Matrix trace

0) EXIT

Please enter your option: 4

Enter the size of the square matrix: 5

Enter the multiplication constant4

The matrix is:

9 8 3 10 10

9 8 8 2 8

1 8 9 7 9

4 7 1 5 8

8 8 8 7 6

The original matrix multiplied by 4 is:

36 32 12 40 40

36 32 32 8 32

4 32 36 28 36

16 28 4 20 32

32 32 32 28 24

Command Number 4 completed.

Your options are:

-----------------

1) Add 2 matrices

2) Subtract 2 matrices

3) Multiply 2 matrices

4) Multiply matrix by a constant

5) Transpose matrix

6) Matrix trace

0) EXIT

Please enter your option: 3

Enter the size of the square matrices: 3

First matrix is:

10 7 1

1 5 3

1 9 1

Second matrix is:

6 8 8

9 10 3

7 5 5

The resulting matrix is:

130 155 106

72 73 38

94 103 40

Command Number 3 completed.

Your options are:

-----------------

1) Add 2 matrices

2) Subtract 2 matrices

3) Multiply 2 matrices

4) Multiply matrix by a constant

5) Transpose matrix

6) Matrix trace

0) EXIT

Please enter your option: 5

Enter the size of the square matrix: 7

The matrix is:

6 3 7 9 1 2 7

9 6 7 6 3 9 3

7 3 8 7 3 6 6

3 3 8 9 4 8 2

6 8 10 10 5 5 10

6 8 4 6 9 5 3

4 6 2 9 1 6 2

The transposed matrix is:

6 9 7 3 6 6 4

3 6 3 3 8 8 6

7 7 8 8 10 4 2

9 6 7 9 10 6 9

1 3 3 4 5 9 1

2 9 6 8 5 5 6

7 3 6 2 10 3 2

Command Number 5 completed.

Your options are:

-----------------

1) Add 2 matrices

2) Subtract 2 matrices

3) Multiply 2 matrices

4) Multiply matrix by a constant

5) Transpose matrix

6) Matrix trace

0) EXIT

Please enter your option: 6

Enter the size of the square matrix: 5

The matrix is:

1 10 8 1 2

5 3 5 1 8

2 6 8 7 9

8 5 3 10 2

8 4 1 4 6

The trace for this matrix is: 28

Command Number 6 completed.

Your options are:

-----------------

1) Add 2 matrices

2) Subtract 2 matrices

3) Multiply 2 matrices

4) Multiply matrix by a constant

5) Transpose matrix

6) Matrix trace

0) EXIT

Please enter your option: 0

Testing complete