Deep Learning & Matrices in Julia

ROB 102: Introduction to AI & Programming

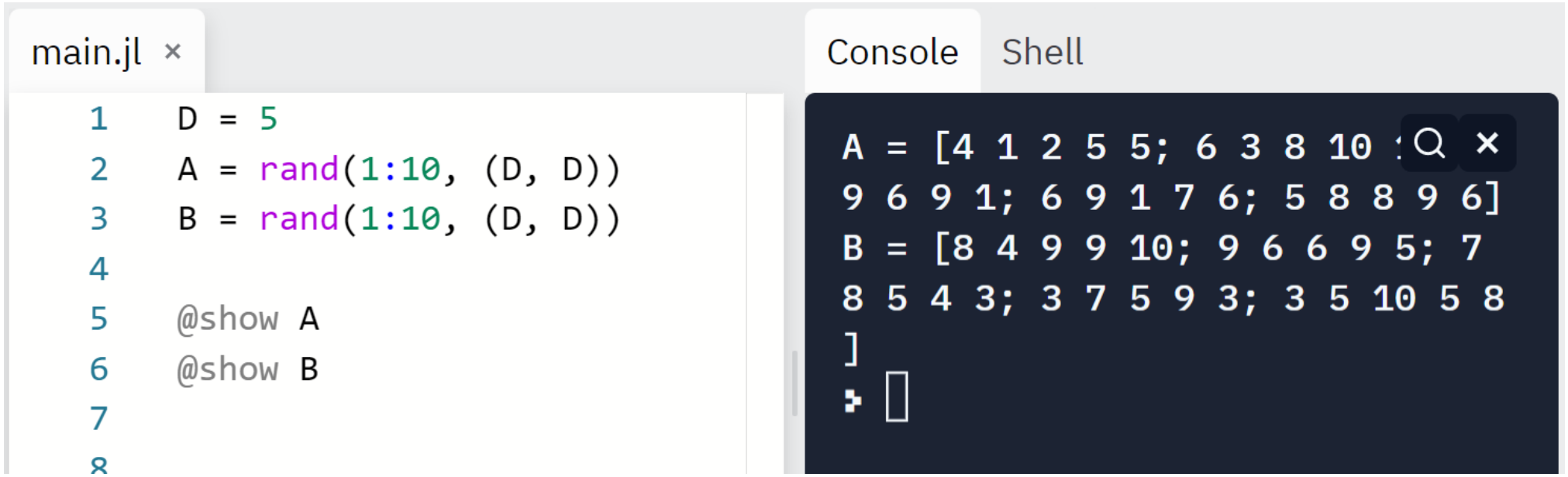
2021/12/01

Today...

1. Deep learning image recognition activity
2. Matrix math review
3. Matrix math in Julia

Matrix Math in Julia

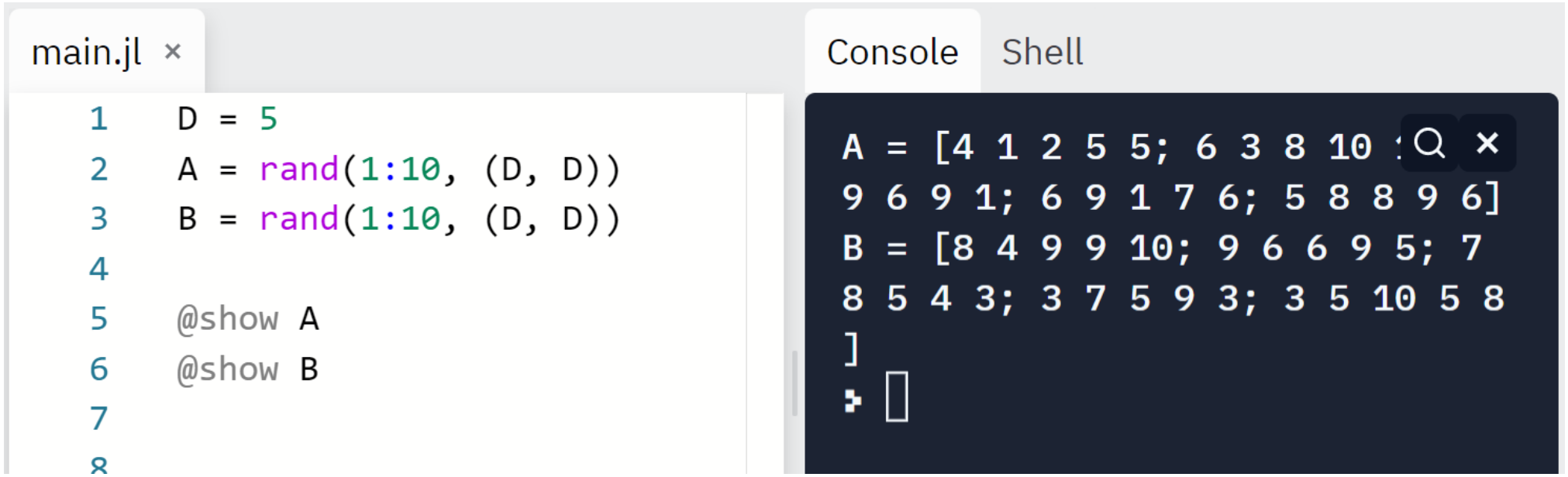
Create two square matrices:



Challenge 1: Print row 2 of matrix A and column 2 of matrix B.

Matrix Math in Julia

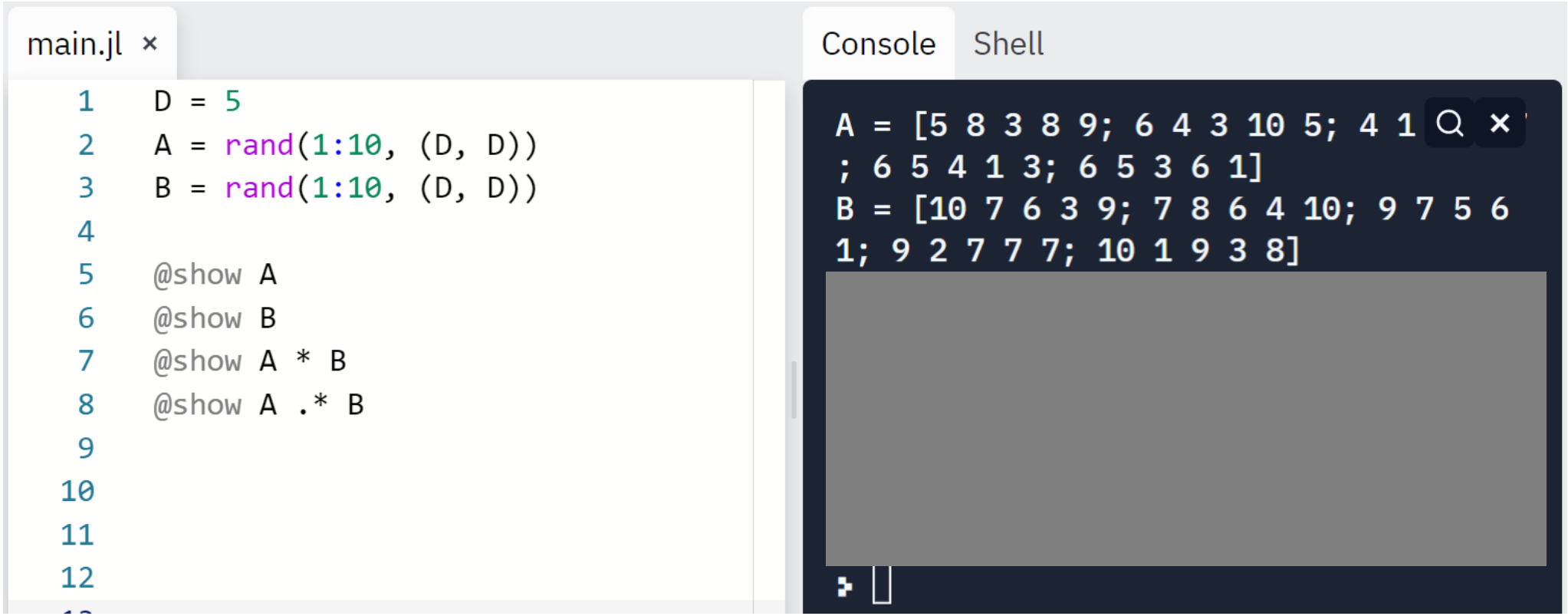
Create two square matrices:



Challenge 2: Calculate the Euclidean distance between A and B two ways: by looping through the matrix and by using matrix math.

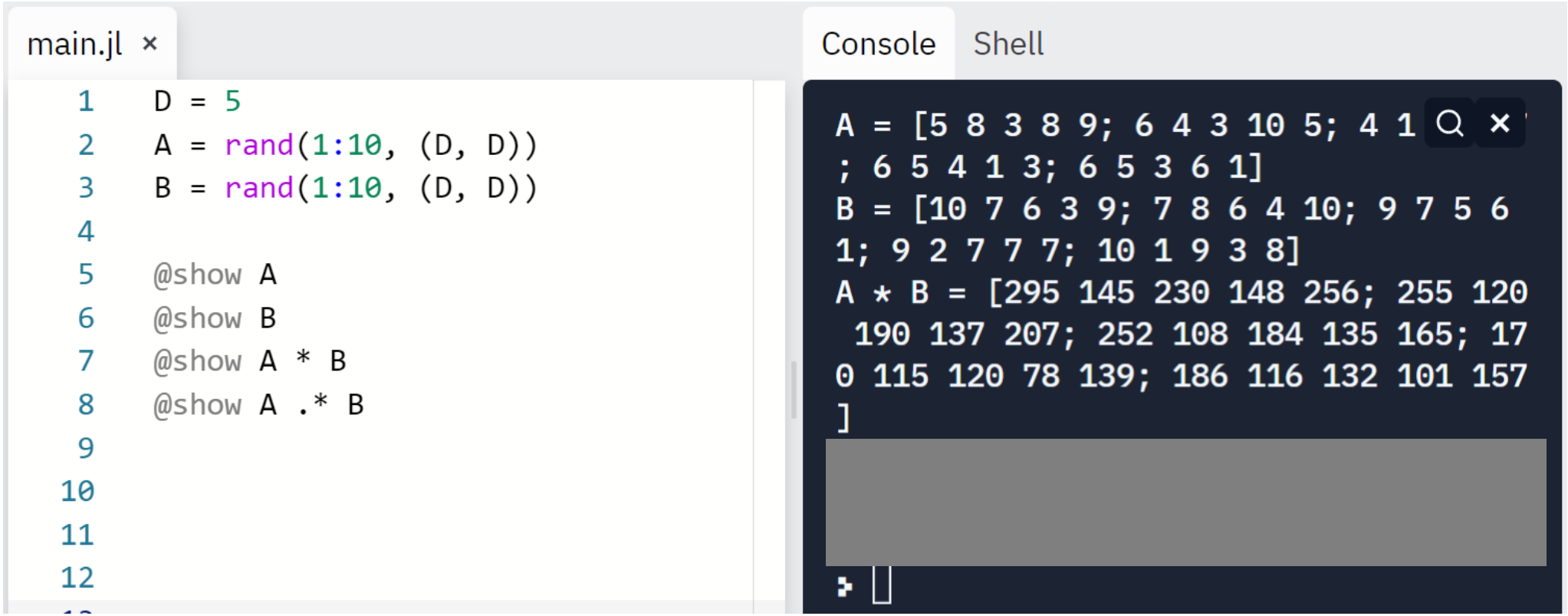
Matrix Multiplication in Julia

What do you expect the output to be?



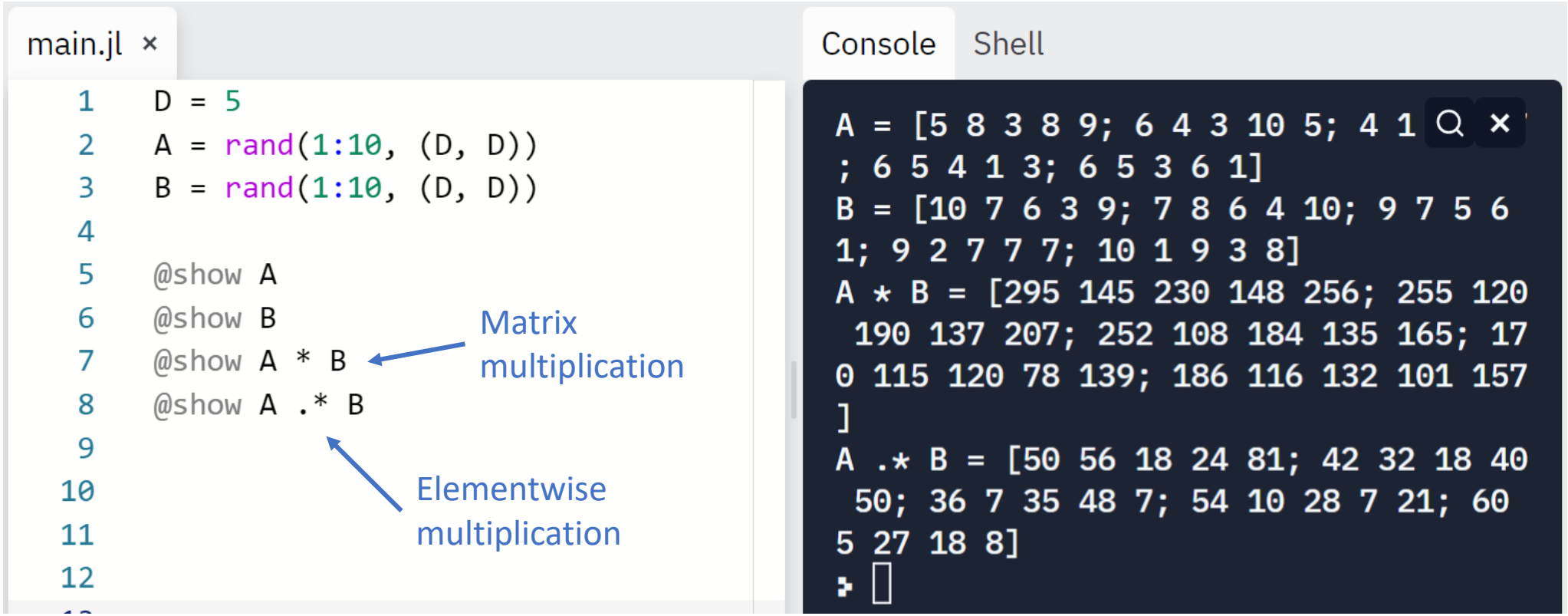
Matrix Multiplication in Julia

What do you expect the output to be?



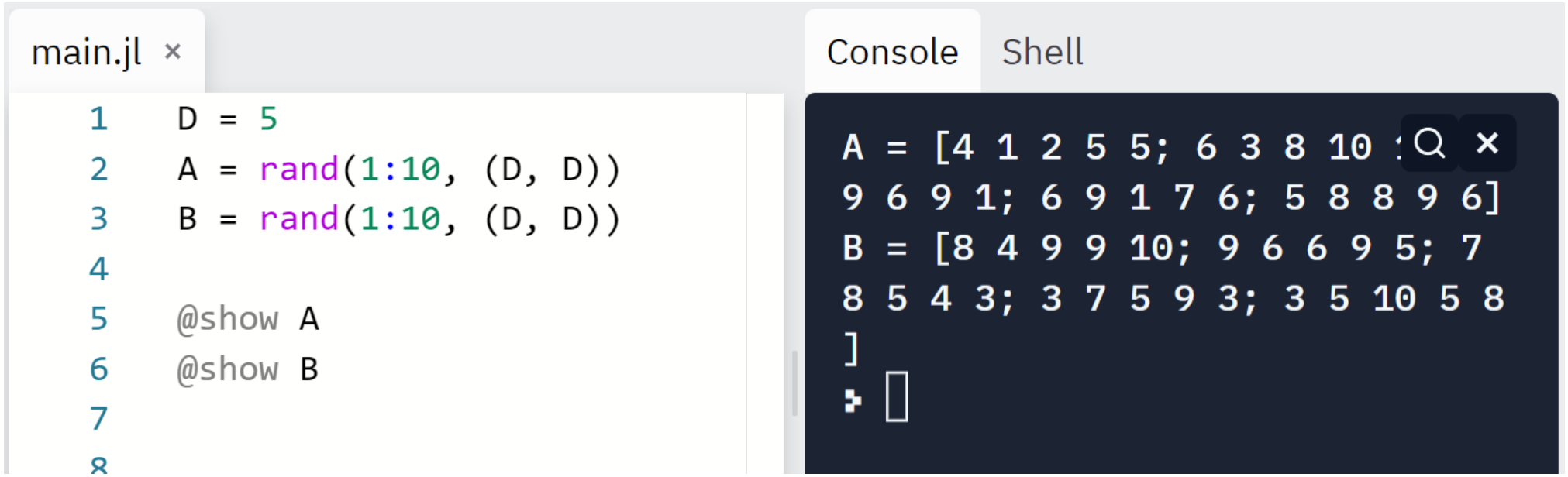
Matrix Multiplication in Julia

What do you expect the output to be?



Matrix Math in Julia

Create two square matrices:



Challenge 3: Perform matrix multiplication 2 ways: by looping through the rows and columns, and using the matrix multiplication operator.