Objective: This lab exercise will help you practice essential MATLAB concepts, including creating and manipulating numeric arrays, performing matrix concatenation, and using the .repmat function :Instructions Part 1: Creating Numeric Arrays .Open MATLAB on your computer :Create a 3x3 matrix named matrixA with the following values 654 987 :Create a 3x3 matrix named matrixB with the following values 12 11 10 15 14 13 18 17 16 .Calculate the sum of matrixA and matrixB and store it in a variable called matrixSum .Display the contents of matrixSum Part 2: Matrix Concatenation .Create a row vector named rowVector with values from 1 to 5 .Create a column vector named columnVector with values from 6 to 10 Concatenate rowVector and columnVector horizontally and store the result in a variable .called horizontalConcat .Display the contents of horizontalConcat Part 3: Using repmat Function .Create a 2x2 matrix named originalMatrix with any values you like Use the repmat function to replicate original Matrix into a 4x4 pattern and store it in a variable .called repeatedMatrix

Display the contents of repeatedMatrix

Part 4: Challenge

:Challenge yourself by performing the following tasks

Create a 3x3 identity matrix (a matrix with diagonal elements as 1 and others as 0) and store .it in a variable called identityMatrix

Perform matrix multiplication between identityMatrix and matrixA. Store the result in a variable called matrixProduct

.Display the contents of matrixProduct

Conclusion: This lab exercise covers fundamental MATLAB concepts, such as creating and manipulating numeric arrays, performing matrix concatenation, and using the repmat function. It also includes a challenge to test your understanding of matrix multiplication. Practice these skills to become more proficient in MATLAB