

MATLAB Exercise

- 1.** Create a vector of the even whole numbers between 31 and 75.
- 2.** Write the MATLAB commands for : Let $x = [2 \ 5 \ 1 \ 6]$
 - Add 16 to each element
 - Add 3 to just the odd-index elements
 - Compute the square root of each element
 - Compute the square of each element
- 3.** Write the MATLAB commands for : Let $x = [3 \ 2 \ 6 \ 8]'$ and $y = [4 \ 1 \ 3 \ 5]'$
 - Add the sum of the elements in x to y
 - Raise each element of x to the power specified by the corresponding element in y .
 - Divide each element of y by the corresponding element in x
 - Multiply each element in x by the corresponding element in y , calling the result " z ".
 - Add up the elements in z and assign the result to a variable called " w ".
 - Compute $x'*y - w$ and interpret the result
- 4.** Write the MATLAB commands to create a vector x with the elements :
 - 2, 4, 6, 8, ...
 - 10, 8, 6, 4, 2, 0, -2, -4
 - 1, 1/2, 1/3, 1/4, 1/5, ...
 - 0, 1/2, 2/3, 3/4, 4/5, ...
- 5.** Write down the MATLAB commands used to perform the following operations :
 - Constructing a matrix with the second upper diagonal as **[5 2.2 8.5]**.

- Saving all the text appearing in the command window to a text file.
- Loading some data from a binary file to the workspace.
- Setting the MATLAB path.
- Creating a vector of the odd whole numbers between 31 and 75
- Calculating the absolute value and the angle of a complex number.
- Declaring a row vector in MATLAB containing **26** elements between the limits of **3** and **6** by **two** different methods.