

Introduction to Matlab

HW1

1. For $M=[2 \ 4 \ 5 \ 6; \ 1 \ 2 \ 3 \ 4; \ 12 \ 8 \ 3 \ -1; \ 9 \ 3 \ 1 \ 2];$
calculate and explain what is going on.
 - a) $N=M(1:3,3:4)$
 - b) $addressrow=[3 \ 1 \ 4]; \ addresscolumn=[2 \ 2 \ 1]$
 $P=M(addressrow,addresscolumn)$

2. Generate a table that evaluates the exponential function on $[0,1]$ using 51 equally spaced sample points and plot the results using both line and point fonts.

3. Plot the functions $y=x^p$ on the interval $[0,2]$ for $p=1$ to 6 and give each function, its own graph using subplot. Also, label the windows accordingly using xlabel, ylabel, title. **Hint:** Use the window division below Note how as p increases, the graph window is covered the same as when you read.

Subplot(3,2,1)	Subplot(3,2,2)
Subplot(3,2,3)	Subplot(3,2,4)
Subplot(3,2,5)	Subplot(3,2,6)

4. Make a column vector of length 230 with alternating zeros and ones.

5. Design the following large matrix using smaller matrix blocks.

