

# Midterm Sample Problems

The exam will be closed book, closed notes, with no use of the computers. I will be testing your knowledge of using MATLAB to solve problems. In particular basic MATLAB skills.

I may choose to give a second part to the exam where you get to write programs and then put them on a disk for turning in, but this will have to be at another time.

## Basic Commands

You in the MATLAB command window and type in the following commands without a trailing semicolon. Write out what will appear on the screen.

1. `A = zeros(3,2)`
2. `C = [1,2,3;4,5,6]`
3. `G = ones(C)`

Given the following arrays

$$A = \begin{bmatrix} 1 & 3 & 6 \\ 7 & -5 & 3 \\ 1 & 8 & 4 \end{bmatrix}, B = \begin{bmatrix} 3 & 2 & 1 \\ 6 & 7 & 8 \\ 5 & 4 & 3 \end{bmatrix}$$

What is the result of the following operations:

1.  $C = A + B$

2.  $G = A.^B$

## Working with Functions

Similar to the above examples except now MATLAB functions are involved.

## Simple Programming

Write simple algorithms using `if-else`, logical expressions, etc. Turning things around I may give you a code sample and ask you to explain what it does for a given input.