**Student Name: Nazra Amin**

## Lab Section No.: 30

**Class Number: 1300**

**Major (BME, CEE, CS, ECE, EMSE, MAE, Undecided, Others): CS**

**E-mail (GWU): nazraamin@gwu.edu**

**Please complete this sheet, print it and use it as your cover sheet.**

### SEAS-001 – Lab Assignment and HW #2

##### Matlab Exercises

# Problem 1. 10 points \_\_\_\_\_\_\_\_\_\_

# Problem 2. 10 points \_\_\_\_\_\_\_\_\_\_

# Problem 3. 10 points \_\_\_\_\_\_\_\_\_\_

# Problem 4. 20 points \_\_\_\_\_\_\_\_\_\_

# Total: 50 points Grade:\_\_\_\_\_\_\_\_\_

# Matlab Exercises

**HW#2**

###### SEAS-001

* **Solve all given problems by creating a Matlab m-file for each problem.**
* **For each problem, give a separate page showing the m-file and Matlab solution**
* **On each page, print problem number, your name and your class number.**
* **We recommend you to finish this assignment and turn it in before you leave the lab. However, if it is not ready by the end of the lab, you MUST turn it in the beginning of the next lab, this is absolutely your last chance to turn in your work**.

1. Code:   
   A= roots([1 9 -37 -357 -36 1620])

Answer:

A =

-9.0000

6.0000

-5.0000

-3.0000

2.0000



Code:  
A = [1 2 0; 2 5 -1; 4 10 -1]

B = [20; 46; 95]

X = inv(A)\*B

A =

1 2 0

2 5 -1

4 10 -1

B =

20

46

95

Answer:  
X =

2

9

3

Code:

A = [1 2 0; 2 5 -1; 4 10 -1]

B = [13; 24; 53]

X = inv(A)\*B

A =  
 1 2 0  
 2 5 -1  
 4 10 -1

B =  
 13  
 24  
 53

Answer:  
X =  
 7  
 3  
 5

3.

Code:  
sin(cos(25))+100\*((55/7)-1000\*tan(.23))

Answer:   
ans = -2.2628e+04

**4.**

Code:  
n = 1:1:200;

a = ((-1).^n).\*((n.^3)+n)./(n+1).^3;

b = sin(n.^3);

plot(n,a,'bo', n,b, 'r\*');

Graph:

