

ASE 211 Homework 1

Due: 12:00 noon, Friday, September 8. Put assignments in the drawer on the third floor of WRW marked 'ASE 211.'

1. Using matlab, perform the following operations. Create a diary of your matlab session and hand in your diary.

- Enter $a = 3$.
- Compute e^a and $\log(a)$.
- Enter *column* vectors $x = (3, 2, 1)$ and $y = (-12, 4, 6)$.
- Compute $a * x$ and $x + y$.
- Create a matrix

$$A = \begin{bmatrix} -1 & 3 & 6 \\ 0 & 4 & 2 \\ 3 & 8 & 9 \end{bmatrix}$$

- Multiply $a * A$ and $A * x$.
- Perform the following for-loop: for $i = 1$ to 20 by 1, $x(i)=i$ and $y(i)=x(i)*x(i)$.
- Plot the vector x vs. y .
- Print the plot.
- Enter $k=0$.
- Perform the following while-loop: while k is less than or equal to 3, increment k by 1.

2. Create the following m-file *myfunc.m*:

```
function y=myfunc(x)
y=x^2+3*x+12;
```

In matlab, type the following commands:

```
>> for i=1:100
x(i)=i/100;
y(i)=myfunc(x(i));
end
>> plot(x,y)
```

Print the plot created by these commands.