Some Tips on Matlab For MAE 305 Students

I hope this is helpful

To enter a matrix: Type

\[
>> A=[1.1\ 2.5\ 3.1234;\ 0\ 4.1\ -1.2;\ 1,\ 3,\ 5];
\]

and you will see

\[
A=\begin{bmatrix}
1.1 & 2.5 & 3.1234 \\
0 & 4.1 & -1.2 \\
1 & 3 & 5
\end{bmatrix}
\]

You can see that Matlab will either take a space or a comma as delimiter for a number. A semi-colon is a delimiter for a completed row.

To enter a column vector: Type

\[
>> b=[1\ 3.4,\ 8]'
\]

and you will see

\[
b=\begin{bmatrix}
1 \\
3.4 \\
8
\end{bmatrix}
\]

You can type \( b=[1;\ 3.4;\ 8;] \) and achieve the same goal.

The inverse of \( A \): Type

\[
>> \text{inv}(A)
\]

and you will get it.

Solving \( Ax = b \): Type

\[
>> x = A\backslash b
\]

and here comes your solution, the \( x \) column vector. Note: \( A\backslash b \) looks like \( A \) is trying to get underneath \( b \). Try \( b/A \). Matlab will scorn you.