

## Helpful Matlab Functions, v.2

Here's a list of Matlab functions that you may find helpful. I expect to update this document during the semester, and will denote each update with a new version number.

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|------------------------|--|
| <code>ceil(x)</code>   | rounds $x$ to the next highest integer.  |
| <code>figure(x)</code> | creates a new figure with label $x$ . For example, <code>figure(1)</code> creates a new figure titled 'figure 1', etc. This just sets up a place and name for a figure, it doesn't create any content.                   |
| <code>hist(x)</code>   | creates a histogram from array $x$ .   |
| <code>length(x)</code> | returns the size of the longest dimension of $x$ . If $x$ is a vector, this is the same as its length.   |
| <code>mean(x)</code>   | returns the mean value of $x$ . If $x$ is a vector, the mean value of $x$ is returned. If $x$ is an array the columns of $x$ are treated as vectors and a row vector of mean values is returned.                         |
| <code>ones(x,y)</code> | creates an array of dimensions $(x,y)$ of ones   |
| <code>plot(x,y)</code> | creates a plot using vector ' $x$ ' for the x-axis, and vector ' $y$ ' for the y-axis  |
| <code>rand(x,y)</code> | returns an array of dimensions $(x,y)$ of random numbers between 0 and 1   |
| <code>round(x)</code>  | rounds $x$ to the nearest integer  |
| <code>std(x)</code>    | returns the standard deviation of $x$ . If $x$ is a vector, the standard deviation of $x$ is returned. If $x$ is an array the columns of $x$ are treated as vectors and a row vector of standard deviations is returned. |