

92.272 Introduction to Programming with MATLAB
Some Useful Built-In Functions

Function	MATLAB Syntax
\sqrt{x}	<code>sqrt(x)</code>
$\sqrt[n]{x}$	<code>nthroot(x,n)</code>
$ x $	<code>abs(x)</code>
$n!$	<code>factorial(n)</code>
e^x	<code>exp(x)</code>
$\ln(x)$	<code>log(x)</code>
$\log_{10}(x)$	<code>log10(x)</code>
$\sin(x)$	<code>sin(x)</code> if x is in radians <code>sind(x)</code> if x is in degrees
$\cos(x)$	<code>cos(x)</code> if x is in radians <code>cosd(x)</code> if x is in degrees
$\tan(x)$	<code>tan(x)</code> if x is in radians <code>tand(x)</code> if x is in degrees
$\sin^{-1}(x)$	<code>asin(x)</code> gives the result in radians <code>asind(x)</code> gives the result in degrees
$\cos^{-1}(x)$	<code>acos(x)</code> gives the result in radians <code>acosd(x)</code> gives the result in degrees
$\tan^{-1}(x)$	<code>atan(x)</code> gives the result in radians <code>atand(x)</code> gives the result in degrees

MATLAB Command	Description
<code>round(x)</code>	Round to the nearest integer
<code>fix(x)</code>	Round toward 0
<code>ceil(x)</code>	Round toward ∞
<code>floor(x)</code>	Round toward $-\infty$