

Lab 5: Basic plotting

1. Creates a 2-D line plot of the data in y versus the corresponding values in x. Create x as a vector of linearly spaced values between 0 and 2π . Use an increment of $\pi/100$ between the values. Create y as sine values of x. Calling the plot function will display the x versus y data on a scaled viewing domain and range.
2. a) Explore various specifications of ***plot*** command and put it in a tabular format.

Specification	Purpose	Syntax	Example
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b) xlabel, ylabel

c) title

d) legend

3. Create x as 100 linearly spaced values between -2π and 2π . Create y1 and y2 as sine and cosec values of x. Plot both sets of data. Add a title to the chart by using the title function. To display the Greek symbol π , use \pi.
4. In the above plot, use the *LineStyle* option to specify a dashed green line with square markers. Use Name,Value pairs to specify the line width, point marker size, and point marker colors. Set the marker edge color to blue and set the marker face color using an RGB color value.
5. Display Multiple Plots in a Figure Window : Call the tiledlayout function to create a 2-by-1 tiled chart layout. Call the nexttile function to create an axes object and return the object as ax1. Create the top plot by passing ax1 to the plot function. Add a title and y-axis label to the plot by passing the axes to the title and ylabel functions. Repeat the process to create the bottom plot.
(y = sin(3x) %for 1st plot)
(y = sin(10x) %for 2nd plot)
6. Define Y as the 4-by-4 matrix returned by the magic function. Create a 2-D line plot of Y. MATLAB® plots each matrix column as a separate line.