

# Basic Plotting

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## Overview

**`plot(xvalues,yvalues,'style-options')`**

examples

`plot(x,y)`                plots y vs x with a solid line

`plot(x,y,'--')`        plots y vs x with a dashed line

`plot(x)`                plots the elements of x against the rows

## Style Options

### Color Style options

y = yellow

m = magenta

c = cyan

r = red

g = green

b = blue

w = white

k = black

### Line Style options

- = solid

-- = dashed

: = dotted

-. = dashed-dot

none = no line

### Marker Style options

+ = plus sign

o = circle

\* = asterick

x = x-mark

. = point

^ = up triangle

s = square

d = diamond

## Lable and Title

xlabel('Pipe Length')	labels x-axis with Pipe Length
ylabel('Fluid Pressure')	labels y-axis with Fluid Pressure
title('Pressure Variation')	titles the plot with Pressure Variation
legend(string1,string2,...)	produces legend using the text in string1 string2 etc as labels
legend(LineStyle1,sting1,...)	specifies the line style of each label writes the legend outside the plot frame
legend(.....,pos)	if pos = -1 and inside if pos = 0,  there are other options for pos too, and
legned off	deletes the legend from the plot

## Axis Control

**axis([xmin xmax ymin ymax])**

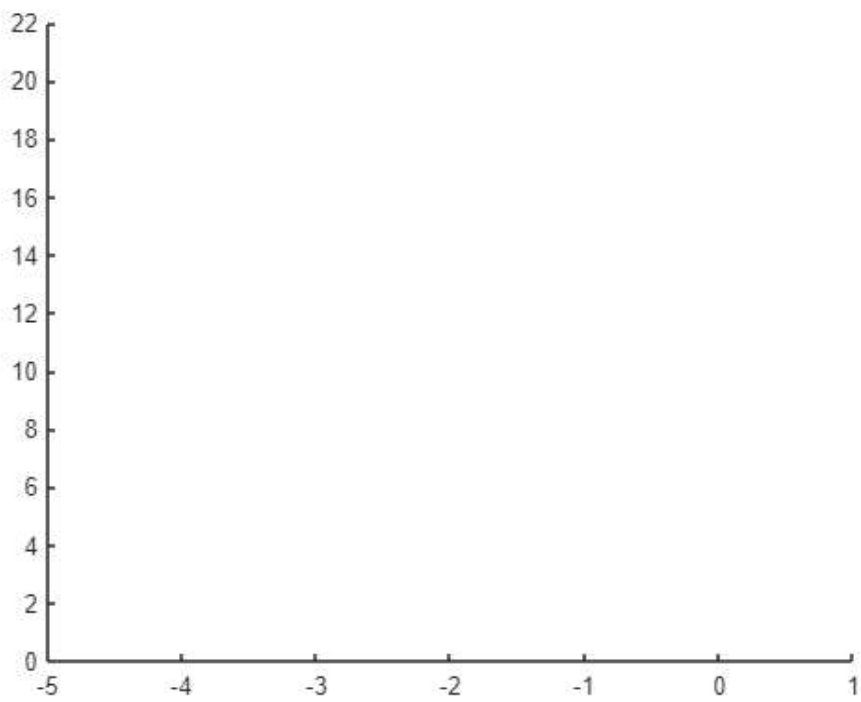
Examples

```
axis([-5 10 2 22]);           %set the x-axis from 05 to 10 and y axis from 2 to 22
axy = [-5 10 2 22]; axis(axy) %same as above,and
ax = [-5 10]; ay = [2 22]; axis([ax ay]); %same as above
```

<b>axis (' equal' )</b>	<b>sets equal scale on both axes,</b>
<b>axis ( ' square' )</b>	<b>sets the default rectangular frame to a square,</b>
<b>axis ( 'normal' )</b>	<b>resets the axis to default values,</b>
<b>axis ('axis' )</b>	<b>freezes the current axes limits, and</b>
<b>axis (' off' )</b>	<b>removes the surrounding frame and the tick marks.</b>

## Semi Axis Control

```
axis ( [-5 10 -inf inf] )      %sets the x-axis limits at -5 and 10 and lets
                               %the y-axis limits be set automatically, and
axis ( [-5 inf -inf 22])      %sets the lower limit of the x-axis and the
```



% upper limit of the y-axis, and leaves the  
% other two limits to be set automatically.