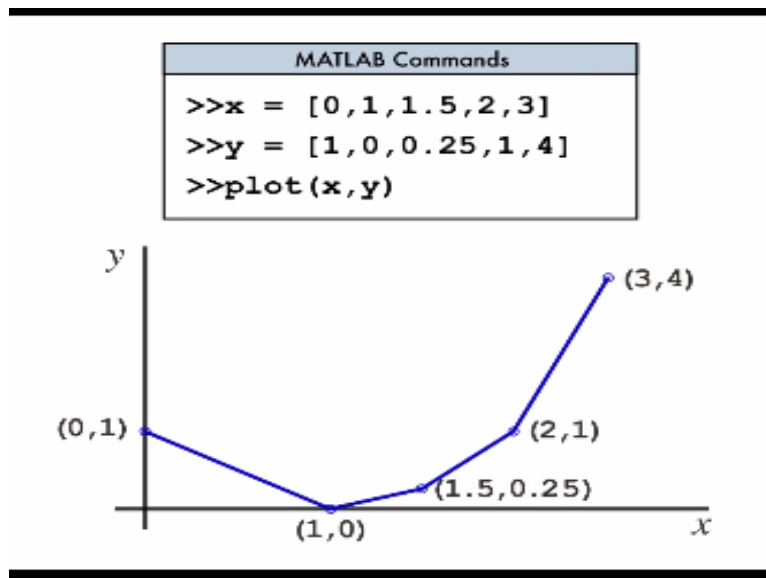


Line Plots

Created by Math Works for
Structural Dynamics

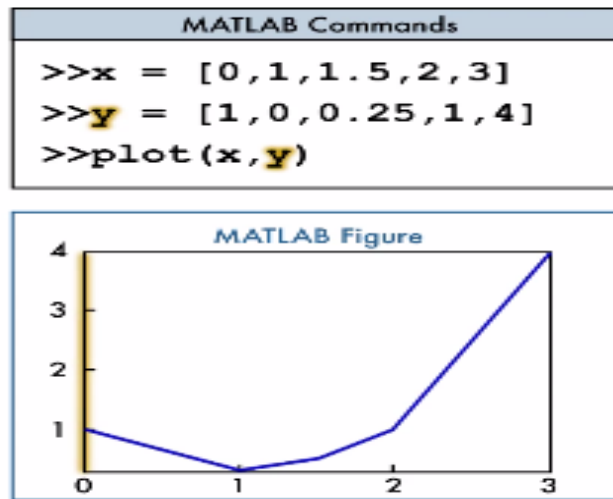
Math Works

(Refer Slide Time: 00:04)



The plot function allows you to create graphs in the XY plane this graph may represent a function or experimental data we think of a graph as a collection of points which may be connected by lines each point has x and y coordinates, to create a graph and MATLAB first create a vector that contains all the x coordinates create another vector that contains all the y coordinates. This command creates a new figure that contains a graph of the points.

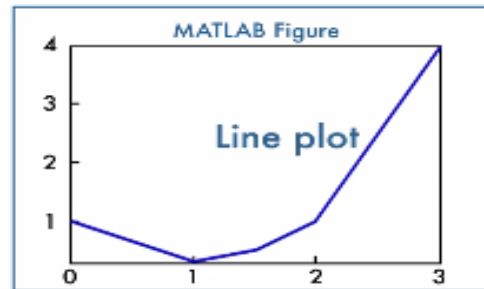
(Refer Slide Time: 00:37)



The first input should be the vector of x values and the second input should be the vector of y values.

(Refer Slide Time: 00:45)

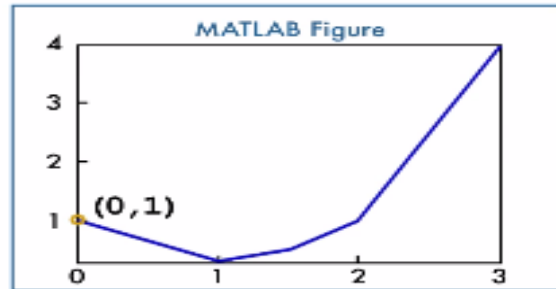
```
MATLAB Commands
>>x = [0,1,1.5,2,3]
>>y = [1,0,0.25,1,4]
>>plot(x,y)
```



It is important that we make sure the two inputs have the same number of elements, notice that only the line connecting the points is shown in the figure the line starts at the first point identified by the vectors of x and y.

(Refer Slide Time: 00:59)

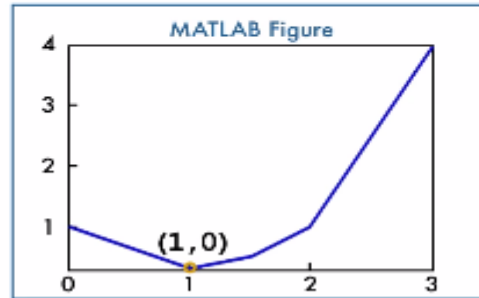
```
MATLAB Commands  
>>x = [0,1,1.5,2,3]  
>>y = [1,0,0.25,1,4]  
>>plot(x,y)
```



Values and continues to the second point.

(Refer Slide Time: 01:02)

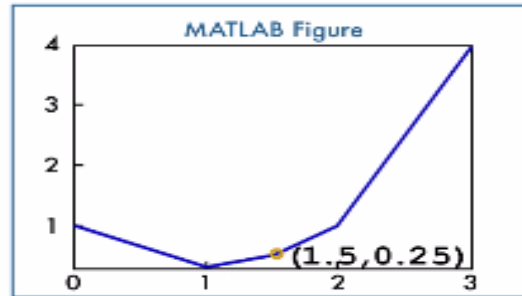
```
MATLAB Commands  
>>x = [0,1,1.5,2,3]  
>>y = [1,0,0.25,1,4]  
>>plot(x,y)
```



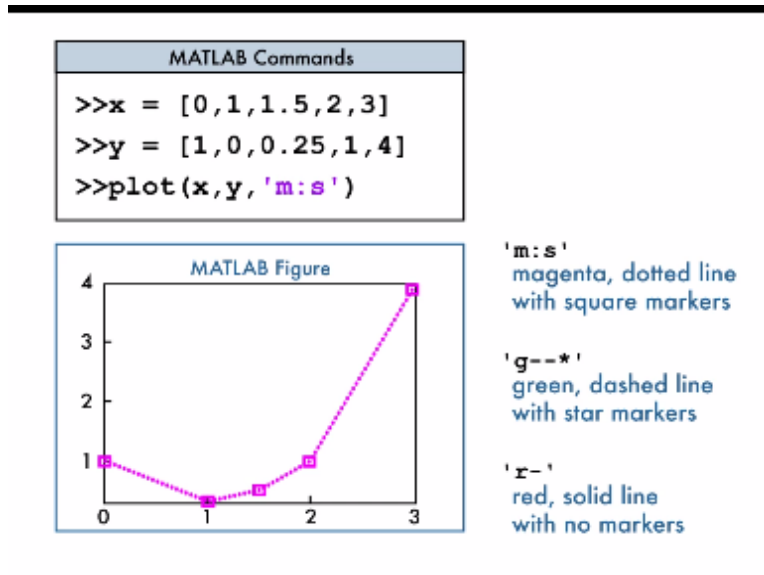
And so on until reaching the last point.

(Refer Slide Time: 01:03)

```
MATLAB Commands  
>>x = [0,1,1.5,2,3]  
>>y = [1,0,0.25,1,4]  
>>plot(x,y)
```



(Refer Slide Time: 01:08)



We can add markers to the points by using a third input to the plot function the third input contains characters surrounded by single quotation marks that specify the format of the graph in this particular example the line will be a magenta dotted line with square markers a few other examples of the third input to the plot function are given try experimenting with other possibilities and combinations to see the effect on the graph.

MathWorks

© 2015 The MathWorks, Inc. MATLAB and Simulink are registered trademarks of The MathWorks, Inc. See www.mathworks.com / trademarks for a list of additional trademarks. Other product or brand names may be trademarks or registered trademarks of their respective holders.