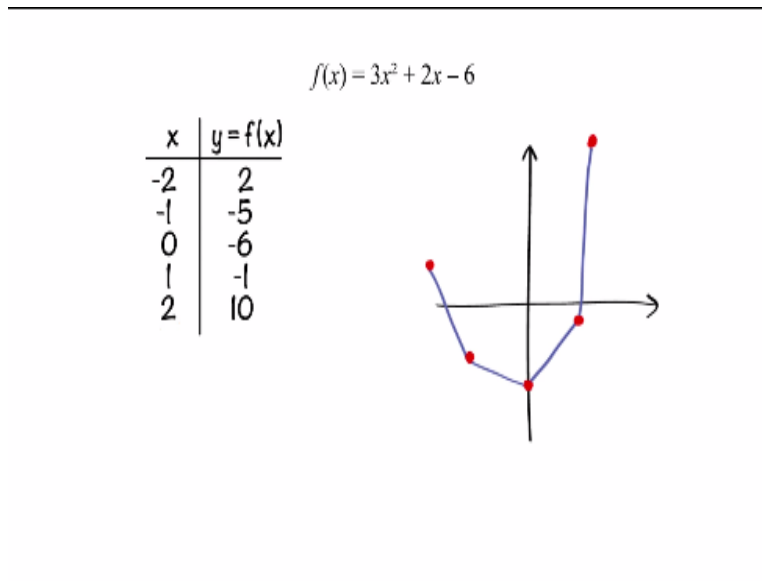


## Creating Vectors

Created by MathWorks for  
Structural Dynamics

MathWorks

(Refer Slide Time: 00:06)



Many commands in MATLAB allow the use of lists of numbers known as vectors. For example, we could plot each of these points individually then connect the dots, but by using vectors we can do it all at once.

(Refer Slide Time: 00:25)

x	y = f(x)
-2	2
-1	-5
0	-6
1	-1
2	10

```
MATLAB Commands
>>x = [-2,-1,0,1,2]
x =
    -2    -1     0     1     2
>>xCol = [-2;-1;0;1;2]
xCol =
    -2
    -1
     0
     1
     2
```

Let us try making a vector to store our x-values we create a MATLAB vector by entering our sequence of values placed within square brackets and separating the values with commas. Notice that this creates a row vector, but what if an application calls for a column vector instead no problem we use semicolons in place of the commas.

(Refer Slide Time: 00:52)

x	y = f(x)
-2	2
-1	-5
0	-6
1	-1
2	10

MATLAB Commands
<pre>&gt;&gt;x = [-2,-1,0,1,2] x =     -2    -1     0     1     2 &gt;&gt;y = [-2,-5,-6,-1,10] y =      2    -5    -6    -1    10</pre>

Now back to that plot let us go ahead and create  $y$  as a row vector to.

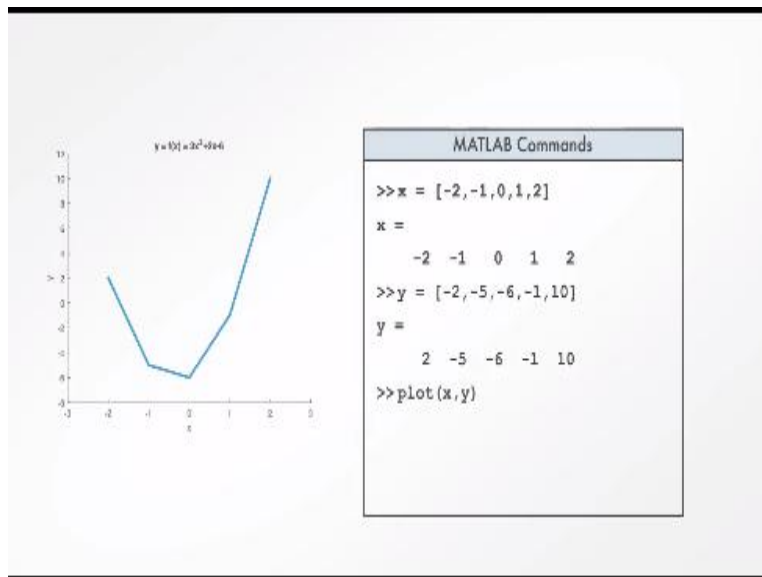
(Refer Slide Time: 01:00)

x	y=f(x)
-2	2
-1	-5
0	-6
1	-1
2	10

MATLAB Commands
<pre>&gt;&gt;x = [-2,-1,0,1,2] x =     -2    -1     0     1     2 &gt;&gt;y = [-2,-5,-6,-1,10] y =      2    -5    -6    -1    10 &gt;&gt;plot(x,y)</pre>

Then we call the plot function using our x and y vectors as inputs.

(Refer Slide Time: 01:04)



And there you go we have a plot of our points.

MathWorks

© 2015 The MathWorks, Inc. MATLAB and Simulink are registered trademarks of The MathWorks, Inc. See [www.mathworks.com](http://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.