

Stat Plot Operations: scatterplot

Construct a scatter plot using data in the lists.

For this example, we have data entered into $L_1 = \{3.8, 5.6, 5.9, 6.4, 7.4\}$ and $L_2 = \{4, 6, 7, 7, 8\}$. See handout for Stat Edit Operations: entering data.

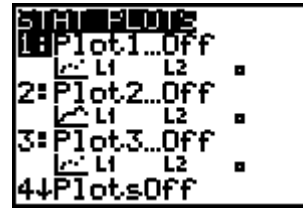
Keystrokes

Screen

Access the **STAT PLOT** Menu:

2nd **Y=**

You can have up to three plots defined at once. To select Plot 1, place your cursor on **1:** and press **ENTER**



This screen shows the definition of your statistical plot.

Note: depending on prior use of your calculator, your screen may appear differently than this one appears here.



We will define a scatter plot that uses the data points from **Xlist** and **Ylist** as coordinate pairs. **Xlist** and **Ylist** must be the same length. We will use L_1 for the input values and L_2 for the output values. First we need to turn the plot on. Using the left and right cursors, place your cursor on **On** and press **ENTER**



The six types of plots available are scatter plot, **xyLine**, histogram, modified box plot, regular box plot, and normal probability plot (see other handouts for Stat Plot Operations). Select the 1st type (scatter plot) **ENTER**



Select L_1 for the **Xlist**:

2nd **1** **ENTER**



Select L_2 for the **Ylist**:

2nd **2** **ENTER**




Select the box for the appearance of each point:

ENTER

More questions? Contact the **Metropolitan State University Math Center** at 651-793-1460, 651-793-1463 (Fax) or math.center@metrostate.edu.

Persons with a disability who need reasonable accommodations may call Disability Services at 651-793-1540 or 651-772-7687 (TTY).

To view the scatterplot, you must have the viewing window set up for your data. You can define the Window dimensions yourself or you can use **ZoomStat** (see handout for Zoom Operations).

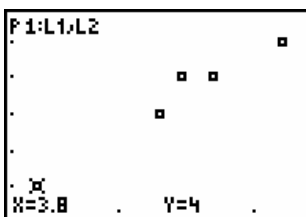
[ZOOM] 



Note: *once you are done with a particular statistical plot, you should turn it off in order to avoid error messages when you graph other functions, change list entries, or look at other statistical plots.*

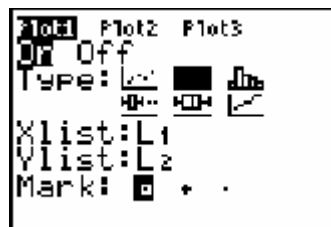


You can trace along the Scatterplot by pressing **TRACE** and the right and left arrows.

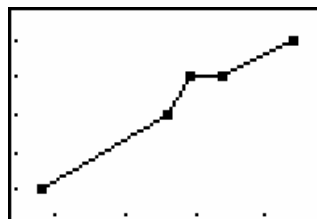


xyLine is a *scatter plot* in which the data points are plotted and connected in order of appearance in **Xlist** and **Ylist**. You may want to sort the lists before you plot them (see handout for Stat Edit Operations: sorting lists). Since the data in our lists are already in increasing order, we will go ahead and define the **xyLine**. Enter the following:



Note: *This is NOT the line of best fit for our data. For the line of best fit, see STAT CALC—LinReg handout.*



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