

Plotting a line of regression (Tutorial C5)

http://www.atomiclearning.com/k12/en/movie/33167/play_window?type=Tutorial&sid=1670

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You can plot a line of regression based on data you've entered. I'll create a new page by pressing the Home key, and then choosing

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Lists & Spreadsheet. You can make menu selections by either pressing the corresponding number or by using the NavPad and Click key.

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I'll enter some x-coordinate data, pressing the down arrow key or the Enter key after each value. I'll enter 5, 8, 12, and 22

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in Column A. Next, I'll name the column by pressing the up arrow key until I've highlighted the cell next to the letter A at the

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top of Column A. I'll call this column "xdots" by typing x-d-o-t-s, and then pressing the Enter key. Now I'll enter some corresponding

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y-coordinate data by pressing the right arrow key, and then the down arrow key to move to cell B1. Next I'll enter 4, 9, 14, and

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24. I'll name the column by pressing the up arrow key until I've highlighted the cell next to the letter B at the top of Column

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B, and I'll call this column "ydots" by typing y-d-o-t-s, and then pressing the Enter key. I'll press the Home key and choose

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Data & Statistics. I want to plot the "xdots" data on the x-axis and the "ydots" data on the y-axis, so I'll use the NavPad to

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roll over the rectangle at the bottom of the screen, and then press the Click key. From the menu that pops up, I'll choose "xdots"

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and then press the Enter key to select it. Now I'll use the NavPad to roll over the rectangle on the left of the screen, and then

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press the Click key. From the menu that pops up, I'll choose "ydots" and then press the Enter key to select it. I'll plot a line of

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regression based on the linear model $y=mx+b$ by pressing the Menu key, followed by Actions, then Regression, and then Show Linear

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($mx+b$). I can see the line appear, and the equation for the line of best fit, in this case $y=1.15*x+(-.71)$. I can hide this line

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and show a different one by pressing the Menu key, followed by Actions, then Regression, and then Hide Linear ($mx+b$). Now I'll

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press the Menu key, then Actions, followed by Regression, and this time I'll show the Quadratic regression by choosing Quadratic.

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I can easily change my data points directly in the scatter plot by rolling over a point, pressing and holding the Click key to

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grab it, then using the NavPad to move it to a new location; keep in mind this is dynamically changing the x and y values for that

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point in my lists. Notice that the line of regression moves to fit the new set of data. Now, if I switch back over to the Lists

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Spreadsheet application by pressing Ctrl-left arrow, I can see that the values for that point have been changed.

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