

Plotting a line of regression (Tutorial C4)

http://www.atomiclearning.com/k12/en/movie/85857/play_window?type=Tutorial&sid=2410

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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,

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and then choosing Lists & Spreadsheet. I'll enter some x-coordinate data, pressing the down arrow key or the Enter

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key after each value. I'll enter 5, 8, 12, and 22 in Column A. Next, I'll name the column by pressing the up arrow

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key until I've highlighted the cell next to the letter A at the top of Column A. I'll call this column "xdots"

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by typing x-d-o-t-s, and then pressing the Enter key. Now I'll enter some corresponding y-coordinate data by pressing

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the right arrow key, and then the down arrow key to move to cell B1. Next I'll enter 4, 9, 14, and 24. I'll name

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the column by pressing the up arrow key until I've highlighted the cell next to the letter B at the top of Column B, and

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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

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

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use the Touchpad to roll over the text at the bottom of the screen, and then press the Click key. From the menu

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that pops up, I'll choose "xdots" and then press the Enter key to select it. Now I'll use the Touchpad to roll over

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and reveal the rectangle on the left side of the screen, and then press the Click key. From the menu that pops up,

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I'll choose "ydots" and then press the Enter key to select it. I'll plot a line of regression based on the linear

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model $y=mx+b$ by pressing the Menu key, followed by Analyze, then Regression, and then Show Linear ($mx+b$). I can see

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the line appear, and the equation for the line of best fit. I can hide this line and show a different one by pressing

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the Menu key, followed by Analyze, then Regression, and then Hide Linear ($mx+b$). Now I'll press the Menu key, followed

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by analyze followed by Regression, and this time I'll show the Quadratic regression by choosing Quadratic. I can easily

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

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

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

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over to the Lists & Spreadsheet application by pressing Ctrl-left arrow, I can see that the values for that point



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have been changed.

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