

Plotting a line of regression (Tutorial C5)

http://www.atomiclearning.com/k12/en/movie/33158/play_window?type=Tutorial&sid=1674

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You can plot a line of regression based on data you've entered. I'll create a new page by clicking Insert, and then choosing Lists &

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Spreadsheet. I'll enter some x-coordinate data, pressing the down arrow key, or the Enter key after each value. I'll enter

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5, 8, 12, and 22 in Column A. Next, I'll name the column by selecting the cell next to the letter A at the top of Column A. I'll call

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this column "xp" by typing x-p, 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 the column by

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selecting the cell next to the letter B at the top of Column B, and I'll call this column "yp" by typing y-p, and then pressing

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Enter. I'll click Insert and choose Data & Statistics. I want to plot the "xp" data on the x-axis, and the "yp" data on the

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y-axis. So I'll roll over the rectangle at the bottom of the screen, and then click. From the menu that pops up, I'll click on "xp".

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Now I'll roll over the rectangle on the left side of the screen, click on that, and then choose "yp". I'll plot a line of regression

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based on the linear model $y=mx+b$ by clicking on Actions, then rolling over Regression, and choosing Show Linear ($mx+b$). I can



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

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different one by clicking Actions, rolling over Regression, and then choosing Hide Linear (mx+b). Now I'll click Actions, roll

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over Regression, and this time I'll show the Quadratic regression by choosing Quadratic. I can easily change my data points directly

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in the scatter plot by rolling over a point, and then clicking and dragging to move it to a new location; keep in mind this is

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dynamically changing the x and y values for that point in my lists. Notice that the line of regression moves to fit the new set of

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data. Now, if I switch back over to the Lists & Spreadsheet application by clicking on that page on the left side of the screen, I can

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see that the values for that point have been changed.

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