

eMathinstruction Algebra I Unit 10 Lesson 9  
Correlation Coefficient (r)

Enter your data in a Lists and Spreadsheets page. If there is no context to the problem, name your columns anything (you need column titles to do a scatterplot)

	A xx	B yy	C
=			
1	2		4
2	5		13

A1 2

Statistics  
Stat Calculations  
Linear Regression (mx + b)  
Use the drop down menus to choose the titles of your x- and y-lists.  
Click on OK

	A xx	B yy	C
=			
1	2		4 Titl
2	5		13 Re

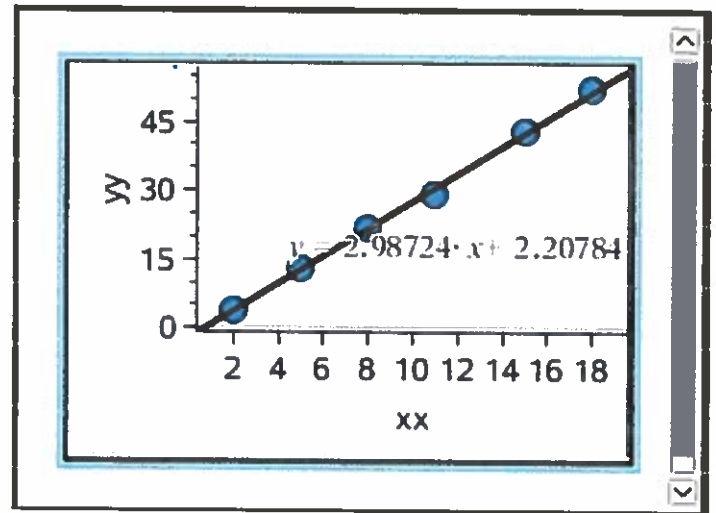
A1 2

Scroll down until you find r.  
r is your correlation coefficient.

	A xx	B yy	C	D
=				=LinReg
1	2		4 Title	Linear F
2	5		13 RegEqn	a+b*x
3	8		22 a	-2.2078
4	11		29 b	2.9878
5	15		43 r <sup>2</sup>	0.9979
6	18		52 r	0.9989
7			Resid	{0.2333

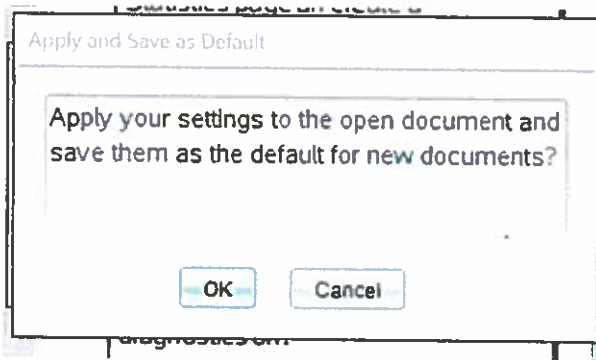
A1 2

This can also be done from a scatterplot. Go to a Data and Statistics page. Create a scatterplot of your data. Create a Line of Best Fit. (See Unit 10 Lesson 8 for help creating a scatter plot and a Line of Best Fit)



If  $r^2$  is not displayed, you must turn diagnostics on.

Press menu. Choose settings. Click on the Diagnostics box. Click on Make Default. This window will pop up. Click OK.



**CAUTION!** On a scatterplot, you can only display  $r^2$ . Students will have to take the square root to find  $r$  AND note whether  $r$  should be positive or negative.

