

## Linear Regression on a Ti-Nspire CX CAS

Start at "Home", press new document, save and name it. (starts with page 1.1)

### To enter data in to the calculator:

Press Menu, add Lists & Spreadsheets.

Name each column according to what the data represents, enter data.

### To create a Line of Best Fit:

Move cursor on to the gray bar which is used for calculations.

Press Menu, stat, Stat Calculations, Linear Regression ( $y=mx+b$ )

Right arrow to pull down the list and select the name you created for x.

Repeat for the y column.

Save to f1.

1<sup>st</sup> result column can be any empty column, like c[ ].

OK

### To create a scatter plot:

Press CTRL, press DOC to add a page to your document. (page 1.2)

Choose Data & Statistics, enter

Move cursor to bottom center of graph paper and click on the box that appears, choose the title you created for x. Data will arrange itself automatically.

Move cursor to left center of graph paper and click on the box that appears, choose the title you created for y. Data will arrange itself automatically.

### To graph the Line of Best Fit on the scatter plot:

Press Menu, press Analyze, press Regression, choose Linear Regression ( $y=mx+b$ ).

Look back at your data (page 1.1). Under the Line of Best Fit you will see a value labeled r and  $r^2$ . These values, called the **Correlation Coefficients**, tell how well the Line of Best Fit actually fits the data. Think of these values as "percents of accuracy". Ex:  $r=.98$  is interpreted as 98% accurate. The higher the Correlation Coefficient, the better the line fits the data. ☺