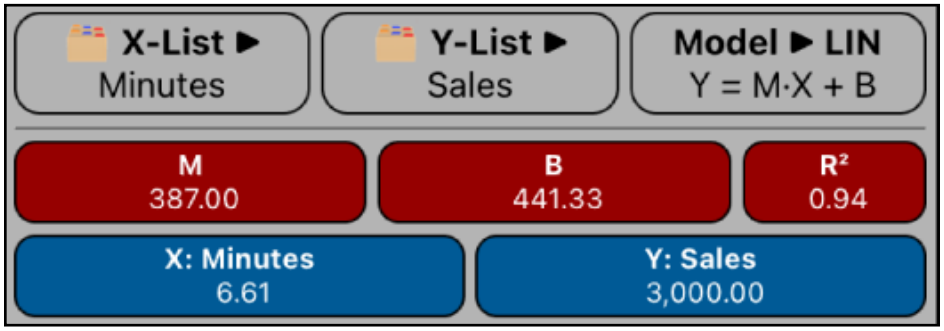
Two (X,N) Lists Curve Fitting Worksheet



This menu allows you to perform curve-fitting regressions with two previously created lists, which must be in the form of : sample value and its frequency (a "**(X,N) List**").

[X-List ▶]	Select a previously created (X,N) List for the 'X' variable.
[Y-List ▶]	Select a previously created (X,N) List for the 'Y' variable.
[Model ▶]	Select the regression model to use (Linear, Logarithmic, Exponential, Power, Exponent or Inverse) or find the model that best fit the data.
[M]	Calculates the 'M' coefficient for the selected regression model.
[B]	Calculates the 'B' coefficient for the selected regression model.
[R^2]	Calculates correlation coefficient for the selected regression model.
[X]	Stores the 'X' value or calculates it for a given 'Y' value using the current regression model.
[Y]	Stores the 'Y' value or calculates it for a given 'X' value using the current regression model.
If any other key is pressed before one of the **Blue** keys, the displayed number is stored in the corresponding variable. Otherwise, the variable is calculated.	

Example:

Using the "Minutes" and "Sales" lists created in the menu document "**Two (X,N) Lists Statistics**", calculate:

1) What regression model best fits the data?.
2) What is the best estimated sales for a 8 minutes of advertising?.
3) What is the best estimate of minutes to obtain $3,000.0 sales?.

Solution:

[X-List ▶] "Minutes"	Select the "Minutes" list for 'X' variable.
[Y-List ▶] "Sales"	Select the "Sales" list for 'Y' variable.
[Model ▶] LIN [R^2]	Select the "Linear" model => **R^2 = 0.94**
[Model ▶] LOG [R^2]	Select the "Logarithm" model => **R^2 = 0.87**
[Model ▶] EXP [R^2]	Select the "Exponential" model => **R^2 = 0.93**
[Model ▶] POW [R^2]	Select the "Power" model => **R^2 = 0.89**
[Model ▶] EXX [R^2]	Select the "Exponent" model => **R^2 = 0.93**
[Model ▶] INV [R^2]	Select the "Inverse" model => **R^2 = 0.77**
[Model ▶] Best Fit	1) The best model is the **Linear** because it has the higher **R^2**. **(Sales = 387.00 * Minutes + 441.33)** Alternatively, you can answer this question in a more direct way selecting the "**Best Fit**" option of the **[Model ▶]** button.
8 **[X] [Y]**	2) For 8 minutes of advertising, the estimated sales = **3,537.33**
3000 **[Y] [X]**	3) For 3,000 of sales you should contract **6.61** minutes.