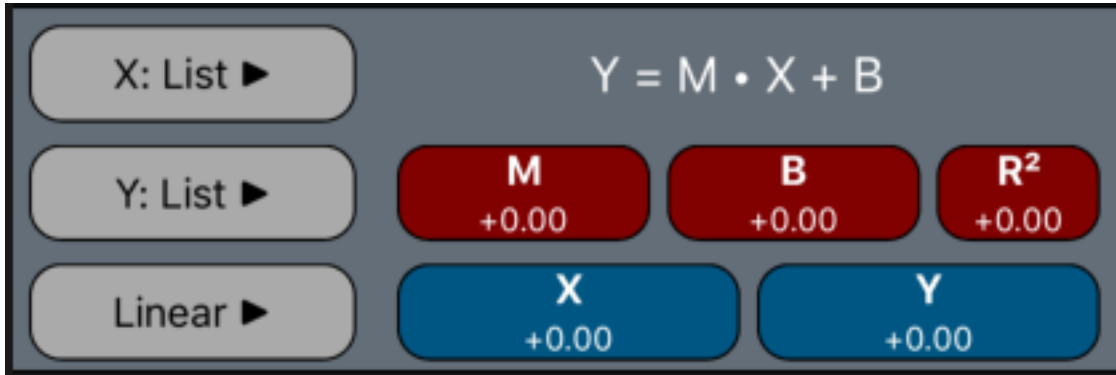


Curve Fitting Menu

This menu allows you to perform regressions and forecasting over a two previously created data-lists. To show the menu, touch the “**SUM**” button in the main menu, the “**CALC**” button and the “**Regression**” button or, in a more direct way, touch the “**SCI**” menu and select the “**Curve Fitting**” option.



Button	Description
[X-List ►]	Select the ‘X’ variable data-list.
[Y-List ►]	Select the ‘Y’ variable data-list
[Linear ►]	Select the regression model to use (Linear, Logarithmic, Exponential, Power, Exponent or Inverse).
[X]	Stores the ‘X’ value or calculates it for a given ‘Y’ value using the current model equation.
[Y]	Stores the ‘Y’ value or calculates it for a given ‘X’ value using the current model equation.
[M]	Calculates the ‘M’ coefficient for the selected model.
[B]	Calculates the ‘B’ coefficient for the selected model.
[R ²]	Calculates correlation coefficient for the selected model.

Example: Curve Fitting.

Using the “Minutes” and “Sales” lists created in “X,Y Statistics” example, what regression model best fits the data?.

Solution :

Keystrokes	Description
[SUM] [CALC]	Shows the CALC menu.
[Regression]	Shows the Regression menu.
[X: List ►] “Minutes”	Select the “Minutes” list as ‘X’ variable.
[Y: List ►] “Sales”	Select the “Sales” list as ‘Y’ variable.
[Linear ►]	Select the “Linear” model
[R ²]	Linear model => R ² = 0.94
[Logarithmic ►]	Select the “Logarithmic” model
[R ²]	Logarithmic model => R ² = 0.87
[Exponential ►]	Select the “Exponential” model
[R ²]	Exponential model => R ² = 0.93
[Power ►]	Select the “Power” model
[R ²]	Power model => R ² = 0.89
[Exponent ►]	Select the “Exponent” model
[R ²]	Exponent model => R ² = 0.93
[Inverse ►]	Select the “Inverse” model
[R ²]	Inverse model => R ² = -0.77

The best model is the Linear because it has the R^2 coefficient closest to 1.
 So the relation is : **Sales = 387.00 * Minutes + 441.33**

Now, what is the estimated sales for a 8 minutes of advertising? and,
 Estimate how many minutes are needed to obtain \$3,000.0 of sales?



Solution :

Keystrokes	Description
8 [X]	Input the number of Minutes. Minutes = 8.00
[Y]	Calculate the estimated sales. Sales = 3,537.33
3000 [Y]	Input the Sales amount. Sales = 3,000.00
[X]	Calculate the estimated minutes. Minutes = 6.61