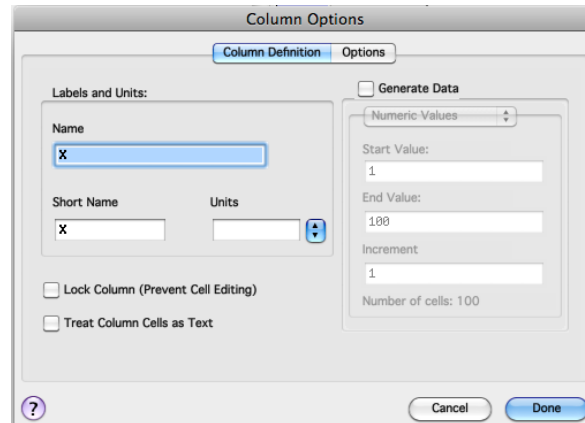
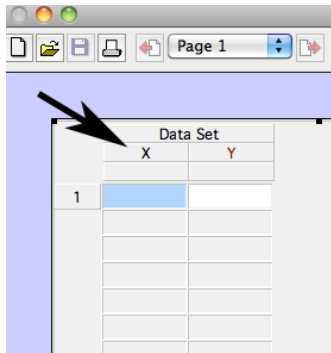


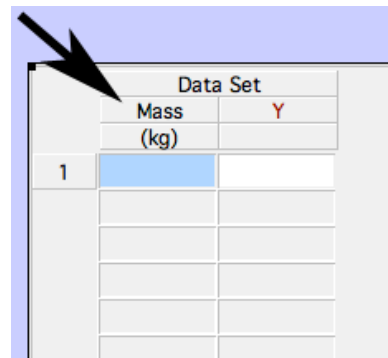
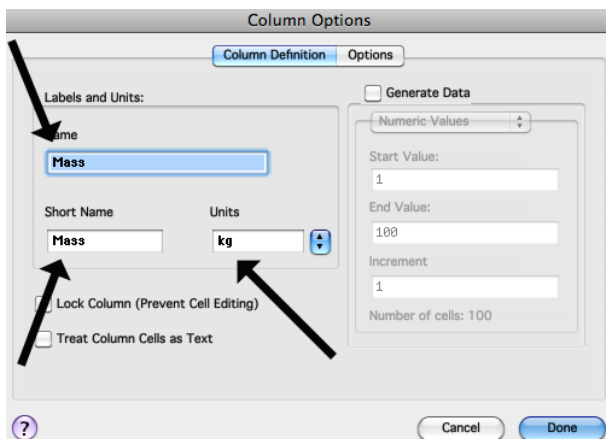
# How to Use Logger Pro



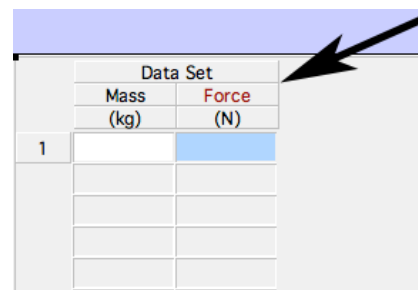
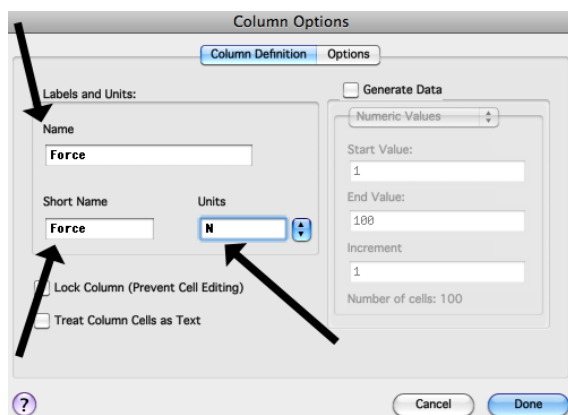
1. Find the **Logger Pro** icon in the dock and click to open it.
2. Double Click on the “**X**” variable in the **Data Set**, the “**Column Options**” window will appear.



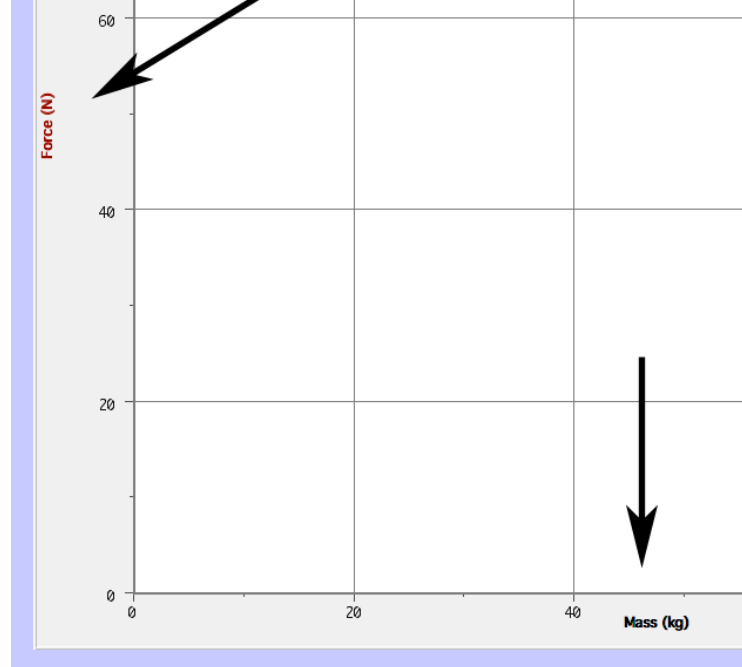
3. Enter the **X axis** variable name into **Name** and **Short Name** (use the same variable in each field, i.e. don't “shorten” the name). Enter the **Units**.  
Example Below: If the **X** variable is **Mass** and the units are **kg**.  
Click “**done**” and the variable and units will automatically appear in the **Data Set** window.



4. Repeat the same process for the “**Y**” variable.  
Example Below: If the **Y** variable is **Force** and the units are **Newtons**.  
Click “**done**” and the variable and units will automatically appear in the **Data Set** window.



- The **variable** and **units** will automatically appear on the graph. Make sure the variables are on the correct axes before proceeding. If the axes are incorrect, redo your work before moving forward and entering your data.



- Enter your data into the **data set** window. Make sure you are entering your data into the proper columns. The X data is the left column, the Y data is the right column.

Data Set		
	Mass (kg)	Force (N)
1	2	10
2	4	20
3	6	30
4	8	40
5	10	50

- Your data will automatically plot on the graph. **Double click** on your graph and a **Graphs Options** window will appear. Name your graph: Y axis variable vs. X axis variable, name of your group, period. Click **“OK”** when you are finished.

**Graph Options**

Graph Options | Axes Options

Title: Force vs. Mass (Group 4, Period 7)

Examine:

- Interpolate
- Mouse Position and Delta
- Legend

New Data:

- Add New Data Sets and Columns

Plot Appearance:

- Point Symbols
- Connect Points
- Bar Graph
- X Error Bars
- Y Error Bars
- Draw Visible Spectrum

Note: Error bar calculations and Point Symbol styles are set in the Column Options dialog for each column.

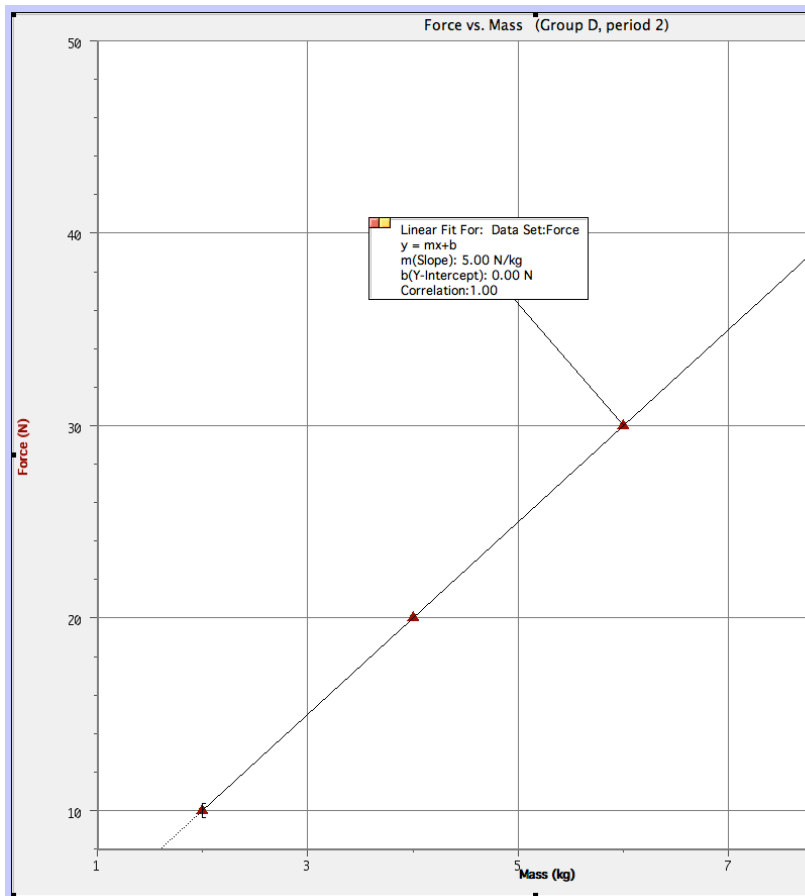
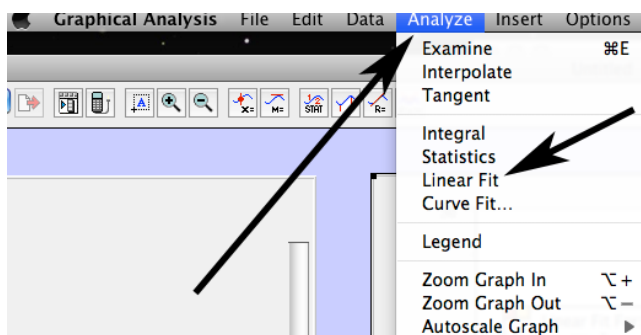
Grid:

Major Tick Style: Solid | gray

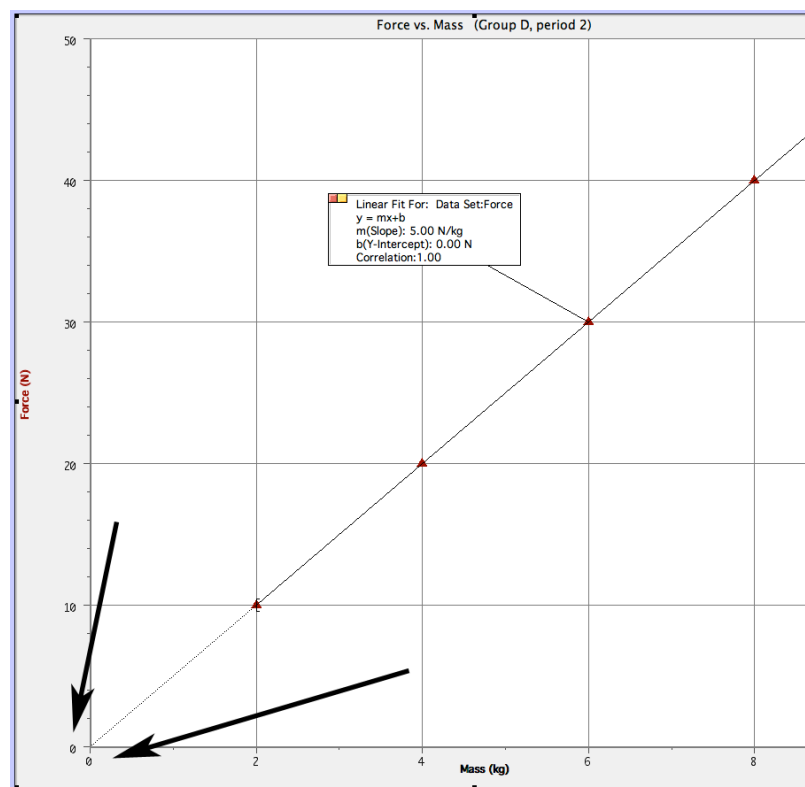
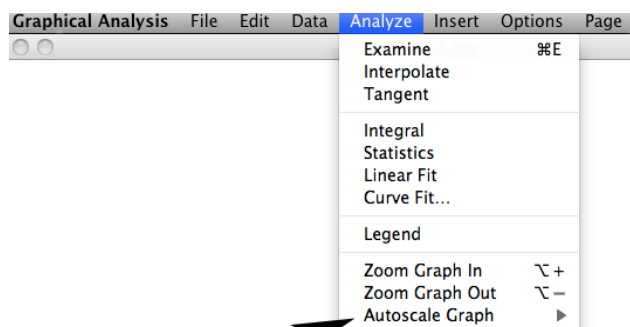
Minor Tick Style: No Line | gray

Buttons: Cancel, OK

8. To create a **line of best fit** on your graph select **Analyze** from the menu bar and select **Linear Fit** from the drop down menu. This will create a **line of best fit** on your graph. Also included will be a box with the **slope** and **y-intercept** of the line.



9. The final thing you must always do is to make sure both axes of the graph are at zero. To do this you must **autoscale** your graph from zero. Select **Analyze** from the menu bar and select **Autoscale Graph** from the drop down menu, **Autoscale from Zero** will appear. Select this and both the x and y axes of your graph will begin at zero. Autoscale from zero is **NOT always permanent**. If you make changes to your graph before you print you might need to **re-autoscale from zero**. The last thing you should do before you print is to make sure both axes are at zero.



10. To print the graph select **File** from the menu bar, and **Print Graph** from the drop down menu. A print window will appear. Select the number of copies you'd like (one for each member of your lab group) and select the button "**from**" 1 to 1. Before you select **print**, your physics teacher must check your graph. **DO NOT print** your graph without final approval from your physics teacher on every lab all year!

