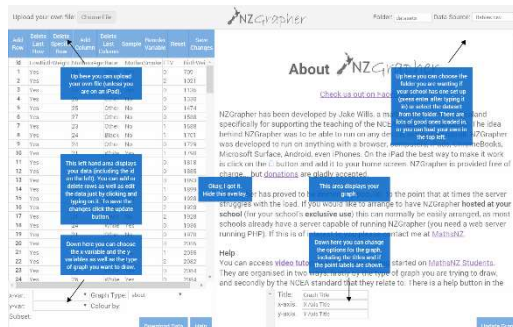# Part 3: Data – Using NZGrapher

The next section that we need to do is the data section. This is reproducing the graphs on Page 2 using NZGrapher. The example below will go through using the cars dataset for weight by engine size.

NZGrapher runs on anything with a browser… Macs, PCs, iPad, Android, ChromeBooks and more.

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First up we need to start NZGrapher by going to the link in the box to the right.	www.jake4maths.com/grapher
The first time you load NZGrapher it will display an overlay with descriptions as to what all the different areas do as shown to the right. To load your data in either select it from the dropdown in the top right, or upload it in the top left corner and press go.	
To draw a scatter plot there are just three things you need to do. 1. Select the x-variable… this is your independent variable that will be on the x-axis, in this case it's engine size. 2. Select the y-variable… this is your response or dependent variable, in this case it's weight. 3. Select the graph type… for this we want the scatter. This will give a graph with just the points. You need to check the graph title and axis labels to make sure they are appropriate (include units where necessary) and press update graph. To save or copy the graph just right click on it and press 'Copy Image' or 'Save Image As' or whatever your device says that is similar. 4. Once you have the graph without any regression line you should add in the regression line by pressing the 'Regression Line' check box. *Note 1: The summary statistics are automatically overlaid in red, if you want to remove them just un-tick the summary statistics box.* *Note 2: If you want to identify the outliers, if you click the 'Point Labels' checkbox this will add little numbers next to the points that correspond with the point id.*	
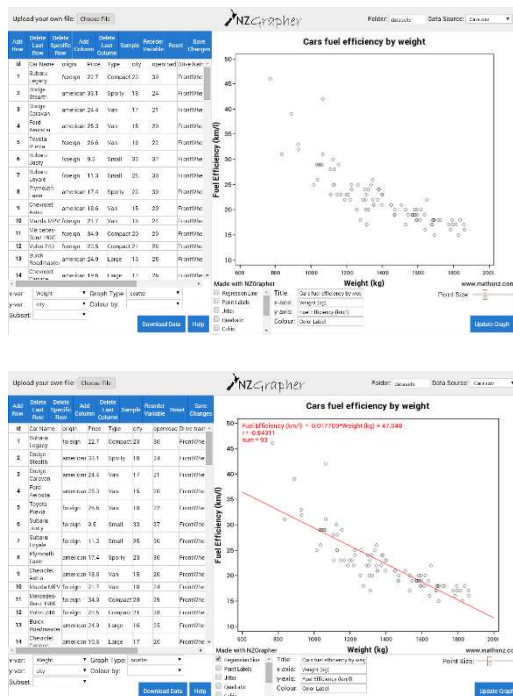
Now it is your turn. For each dataset you need to produce the scatter plot for each dataset. Don't forget to add appropriate titles and units to your graph and axis.