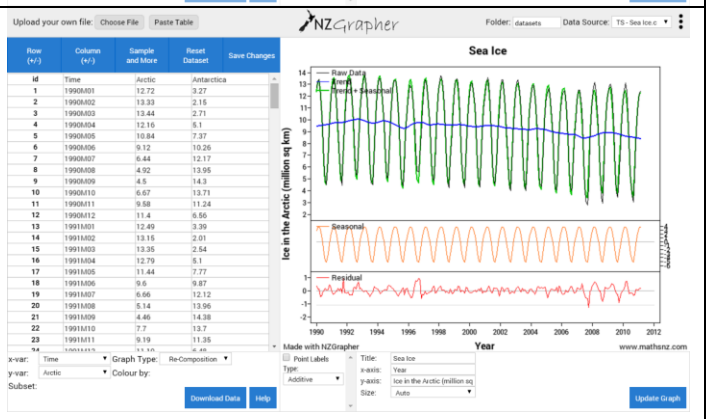
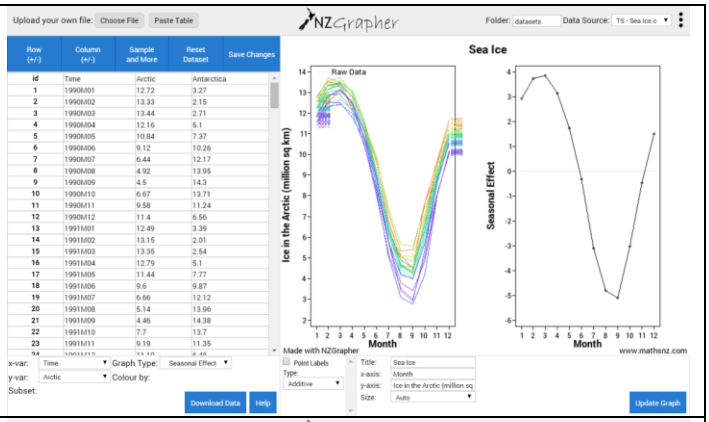
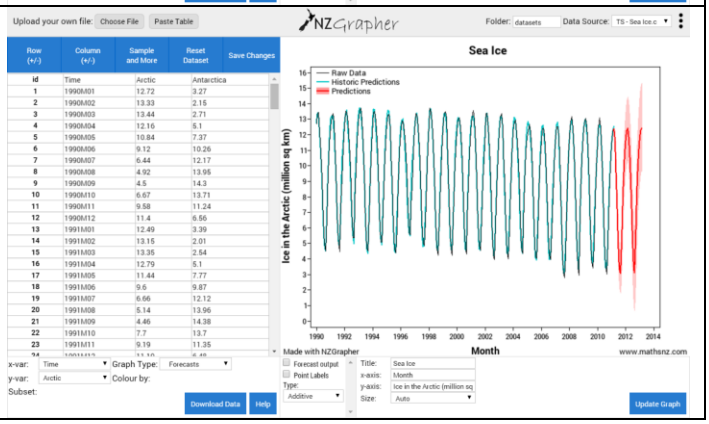
Part 3: Data – Using NZGrapher

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 Rugby dataset for weight by position.
NZGrapher runs on anything with a browser… Macs, PCs, iPad, Android, ChromeBooks and more.

The example below uses the sea ice dataset.

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 dot plot there are just three things you need to do. 1. Select the x-variable… this is your time series variable that will be on the x-axis, in this case it's 'Time'. 2. Select the y-variable… this is your actual data, in this case it's 'Arctic'. 3. Select the graph type… for this we want the 'time series re-composition'. You then just need to check the graph title and axis labels to make sure they are appropriate (include units where necessary) and add press update graph to save the titles. To copy the graph just right click and press copy image, or to save press 'Save Image As' or whatever your device says that is similar. *Note: If you want to identify the extreme points, if you click the 'Point Labels' checkbox this will add little numbers next to the points that correspond with the point id.*	

To get the seasonal effect graph just change the graph type to 'time series seasonal effects' *Note: you will need to change the x-axis title to reflect if it is monthly or quarterly (or something else).*	
The final graph we need is the forecast graph. To get the visual output you just change the graph type to 'time series forecasts' You will also need the text output of the predictions which you can get by clicking on the tick box below the graph.	

Now it's your turn. For each dataset produce all the outputs shown above.

Teachers: for tips and tricks on how to format data for time series click on the time series link on:
http://www.mathsnz.com/inzight-tips/