

## Part 4: Data – Using NZGrapher

The next section that we need to do is the data section. This is reproducing the graphs 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. You can see a video version of this at [students.mathsnz.com](https://students.mathsnz.com)

First up we need to start NZGrapher by going to the link in the box to the right.

[www.jake4maths.com/grapher](https://www.jake4maths.com/grapher)

To draw a dot plot there are just three things you need to do.

1. Select the graph type... for this we want the "Dot Plot".
2. Select the x-variable... this is your numerical variable that will be on the x-axis, in this case it's weight.
3. Select the y-variable... this is your categorical variable and should have two categories, in this case it's position.

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 add in the summary statistics and box plots just tick these options down the bottom.

To save the graph just right click on it and press 'Save Image As' or whatever your device says that is similar, or copy it by right clicking and pressing copy.

Note 1: sometimes you may want to only use some of the dataset... you can either delete each row you don't want in the data viewer, or sample or filter the dataset (under sample and more) to remove points you don't want.

Note 2: 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 match the point id.



Now it is your turn. For each dataset you need to produce the box and whisker plot with the summary statistics overlaid.