

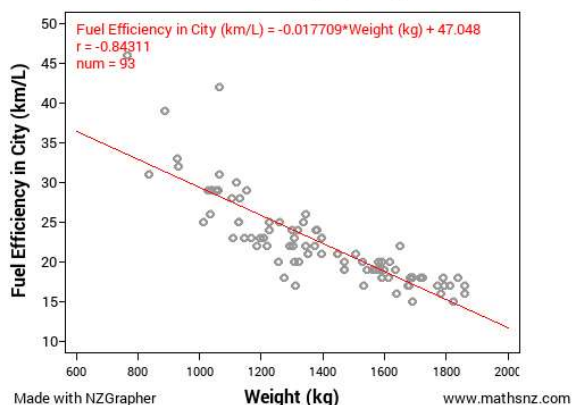
## Part 4.7: Interpretation of Regression Line

Teachers note: this is not a requirement of the standard, but it does round out the discussion nicely.

One of the key bits of information that we get given from NZGrapher is the equation of the regression line. Interpreting the gradient of this regression line is an important comment to make. It is vital that you realise that this is only giving the **average** increase over the whole graph, and not a fixed amount for every unit.

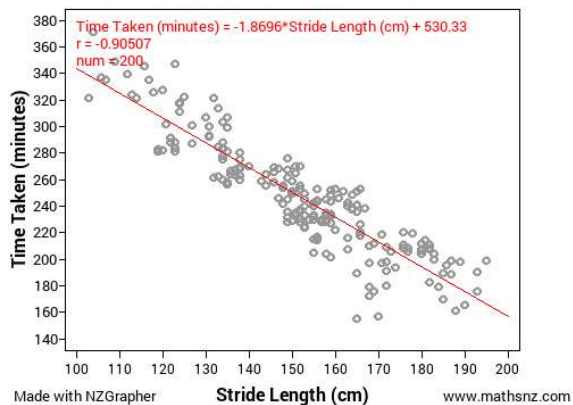
Interpret the regression line for each of the sets of data, the first one has been done for you.

1. Fuel Efficiency by Weight

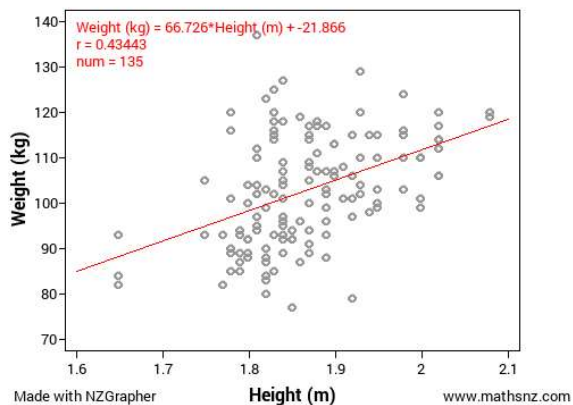


The regression line of Fuel Efficiency =  $-0.017709 \times \text{Weight} + 47.048$  means that for every one kilogram increase in the car's weight, the fuel efficiency decreases by 0.017709 kilometres per litre on average.

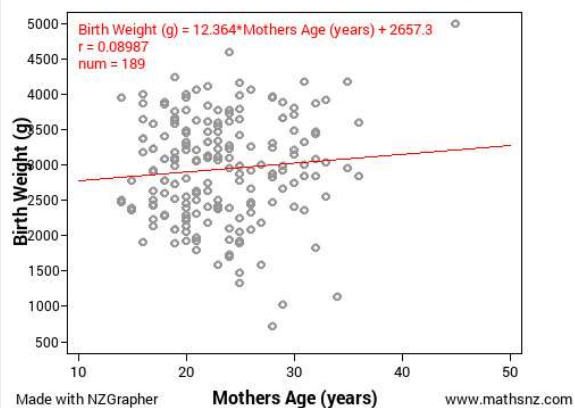
2. Marathon Time by Stride Length



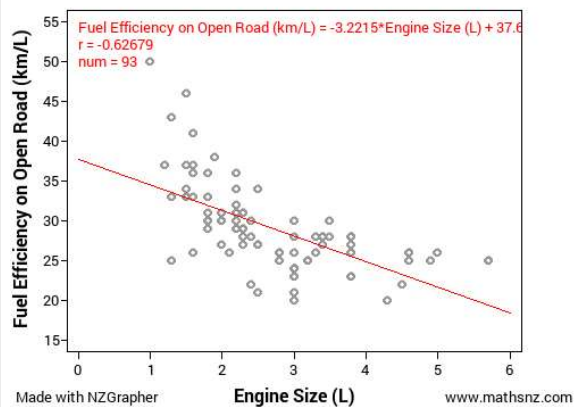
3. Rugby Players Weight by Height



#### 4. Babies Birth Weight by Mother's Age



#### 5. Fuel Efficiency by Engine Size



#### 6. Diamond Price by Size

