

Section 4.5 - Using Graphs to Estimate Values

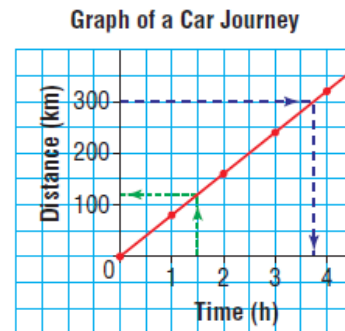
Terms to know...

Interpolation - when we estimate values **between** two given data points on a graph of a linear relation

To estimate the distance travelled in 1.5 h:

- Begin at 1.5 on the *Time* axis.
- Draw a vertical line to the graph.
- Then draw a horizontal line from the graph to the *Distance* axis.

This line intersects the axis at about 120 km.
So, the distance travelled in 1.5 h is about 120 km.



Extrapolation - when we extend a graph of a linear relation to estimate values that lie **beyond** the graph.

To estimate the time it takes to travel 450 km:

- Extend the grid so the *Distance* axis shows at least 450 km.
Use a ruler to extend the graph.
- Repeat the process to estimate the time to travel 450 km.

It takes a little more than 5.5 h,
or about 5 h 40 min to travel 450 km.

