

Walt understand a problem and create a rule and draw graphs on a complex problem
 Success Criteria I know how to create a rule and draw a linear graph

EXAMPLE 2

The cost of hiring a car is a \$10 booking fee plus \$4 per kilometre.


a Complete this table of values for the car hire.

Distance (km)	0	10	20	30	40
Cost (\$)					

b Sketch the graph of cost per kilometre.

c Find the cost of a journey of 25 km.

d How far can you travel for \$70?

Remember to label the axes and use equal divisions on the scale. 

a For a journey of 10 kilometres, cost = $\$10 + \$4 \times 10 = \$50$

For a journey of 20 kilometres, cost = $\$10 + \$4 \times 20 = \$90$

For a journey of 30 kilometres, cost = $\$10 + \$4 \times 30 = \$130$

For a journey of 40 kilometres, cost = $\$10 + \$4 \times 40 = \$170$

The table of values for hiring a car is:

Distance (km)	0	10	20	30	40
Cost (\$)	10	50	90	130	170

b Plot these points and draw a straight line through them.

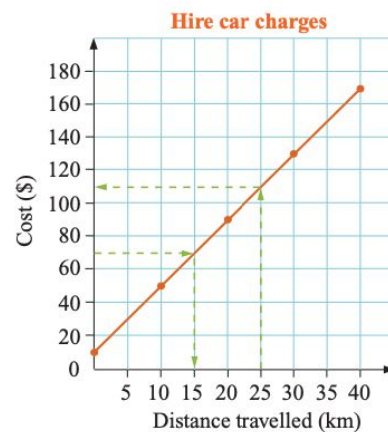
c Draw a line up from 25 on the x -axis to the graph.

Draw a line across to the y -axis. From the graph, the cost of a 25 km journey is about \$110.

d Draw a line across at 70 on the y -axis to the graph.

Draw a line down from the graph to the x -axis.

From the graph, you can travel about 15 km for \$70.



7 The cost of hiring a taxi is \$5.00 flagfall and \$2.50 per kilometre travelled.

a Complete the table of values of taxi hire.

Distance (km)	0	10	20	30	40
Cost (\$)					

b Draw a graph showing the cost of hiring the taxi.

c How much does it cost to travel 15 km?

d How far can you travel for \$85?

8 The cost of hiring a taxi at night is \$8.00 flagfall and \$3 per kilometre travelled.

a Complete the table of costs of taxi hire.

Kilometres	0	10	20	30	40
Cost (\$)					

b Draw a graph showing the cost of hiring the taxi.

c How much does it cost to travel 35 km?

d How far can you travel for \$50?