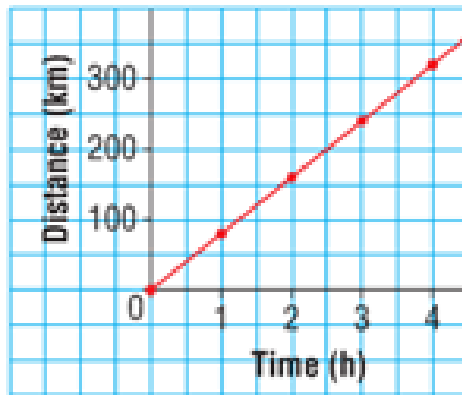


interpolation: information from inside the graph

See example  
Pg 192-193

Graph of a Car Journey



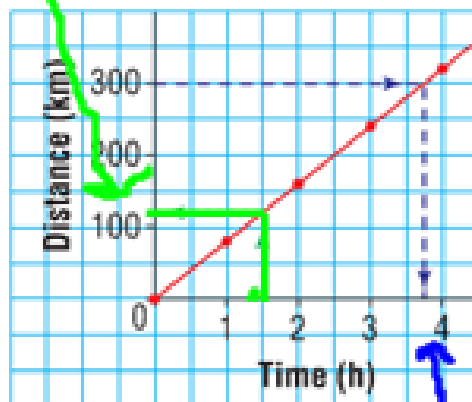
How far did the car travel in 1.5 hours?

125 km

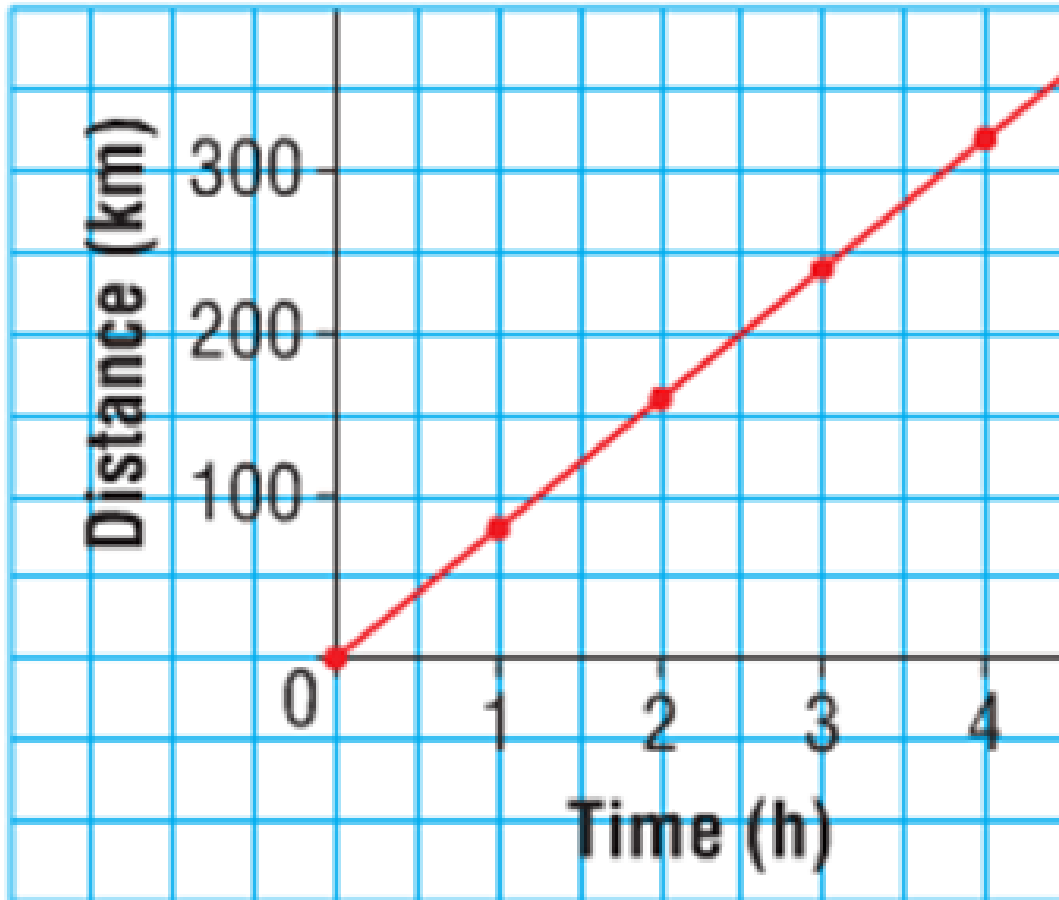
How long will it take to travel 300 km?

3 hrs and 45 min

Graph of a Car Journey



## Graph of a Car Journey



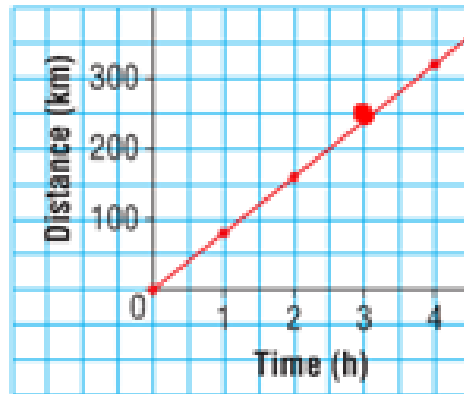
How far did the car travel in 1.5 hours?

How long will it take to travel 300 km?

extrapolation: information from outside the graph

see example pg 193

Graph of a Car Journey



same graph extended



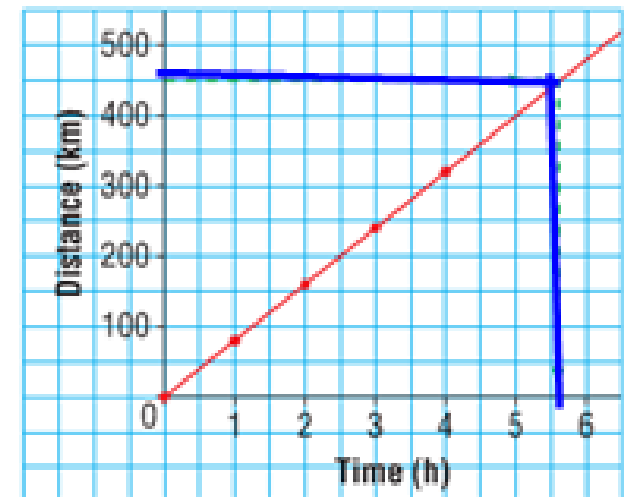
How long will it take to travel 450 km?

5.5 hours

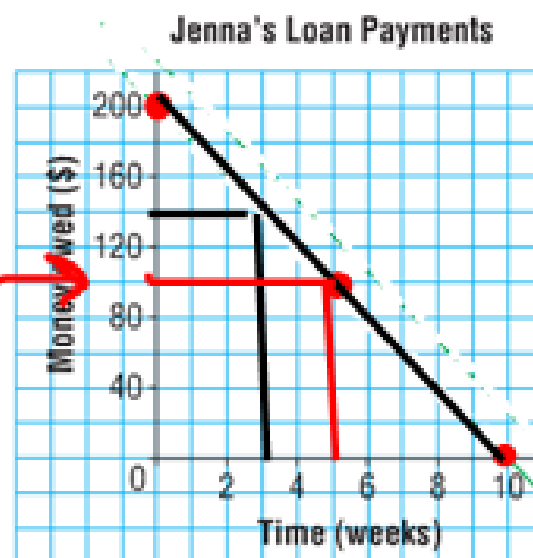
Extend the graph

on graph paper

Graph of a Car Journey



Jenna borrows money from her parents for a school trip. She repays the loan by making regular weekly payments. The graph shows how the money is repaid over time. The data are discrete because payments are made every week.

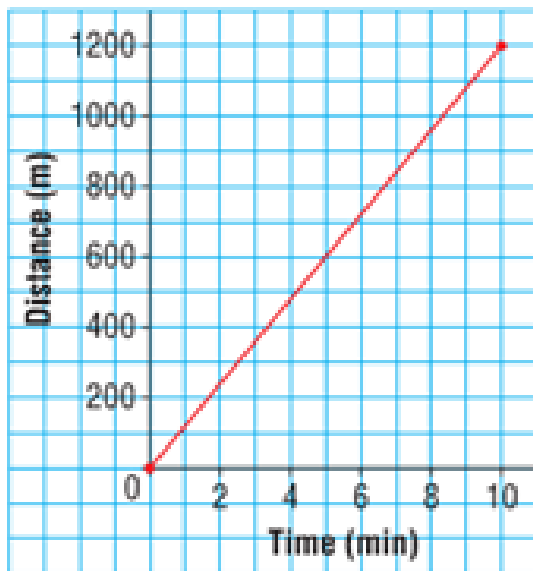


See  
ex  
pg 194

- How much money did Jenna originally borrow? **200**
- How much money does she still owe after 3 weeks? **140**
- How many weeks will it take Jenna to repay one-half of the money she borrowed? **\$100**

**5 weeks.**

Maya's Jog



Use the graph.

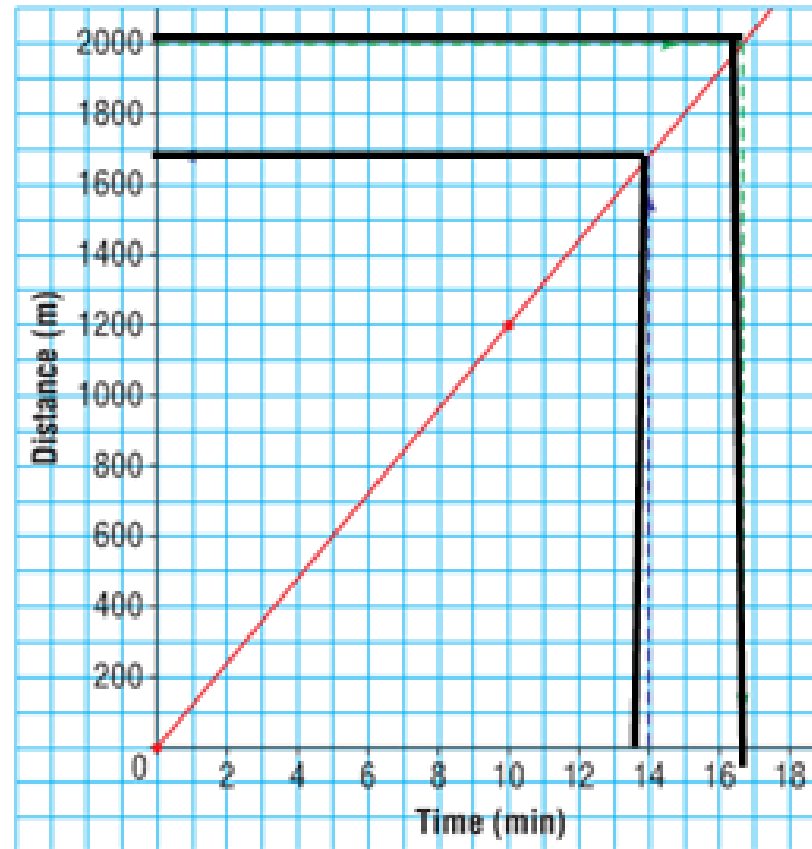
- Predict how long it will take Maya to jog 2000 m.
- Predict how far Maya will jog in 14 min.
- What assumption did you make?

16 min 45 seconds

1700m

almost 17 min

see ex pg 194

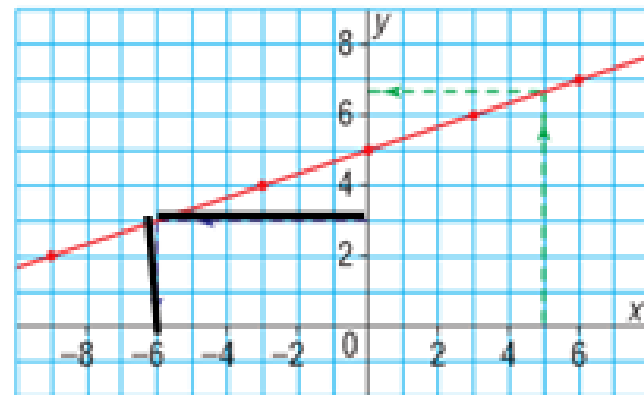
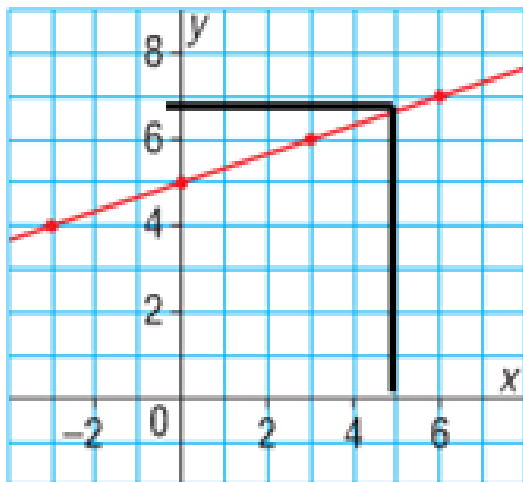


Use this graph of a linear relation.

- a) Determine the value of  $x$  when  $y = 3$ .  
b) Determine the value of  $y$  when  $x = 5$ .

$x = -6$  (extrapolation)

$y = 6.8$  (interpolation)



See ex pg 195

practice pg 196 #4-15