

Distance Time Graphs: Calculating Speed

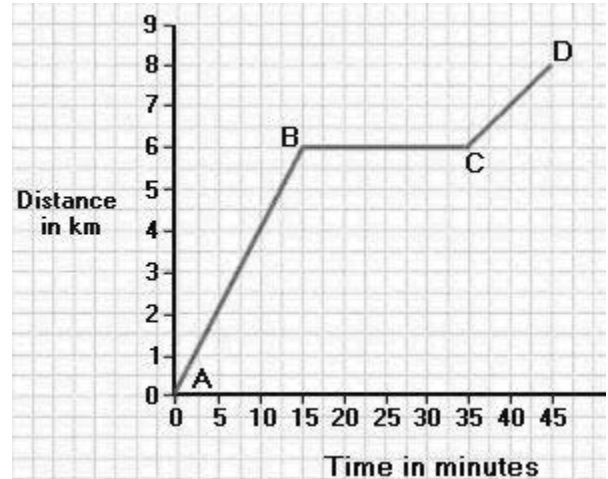
For the following graphs, you are now going to incorporate calculating speed.

To calculate: $speed = \frac{distance}{time}$

Hint: on a graph, speed is the same as slope!

1. This graph models Jessica's bike trip to the store, after leaving home.

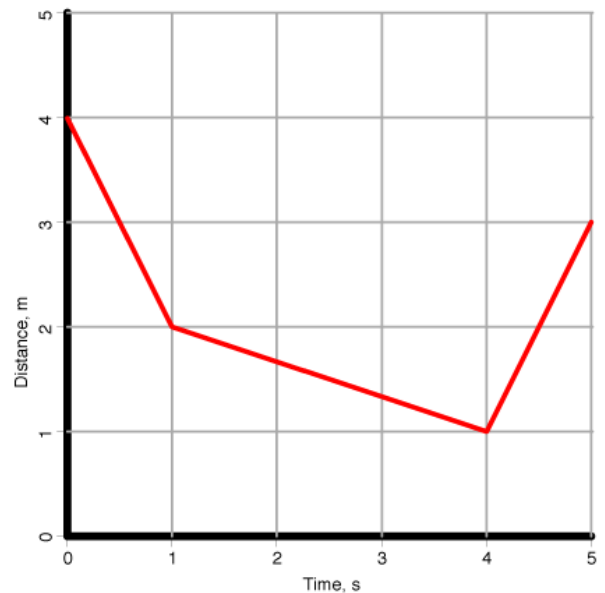
- Calculate the speed she was travelling between points A and B.
- What was her speed between B and C?
- What was her speed between C and D?



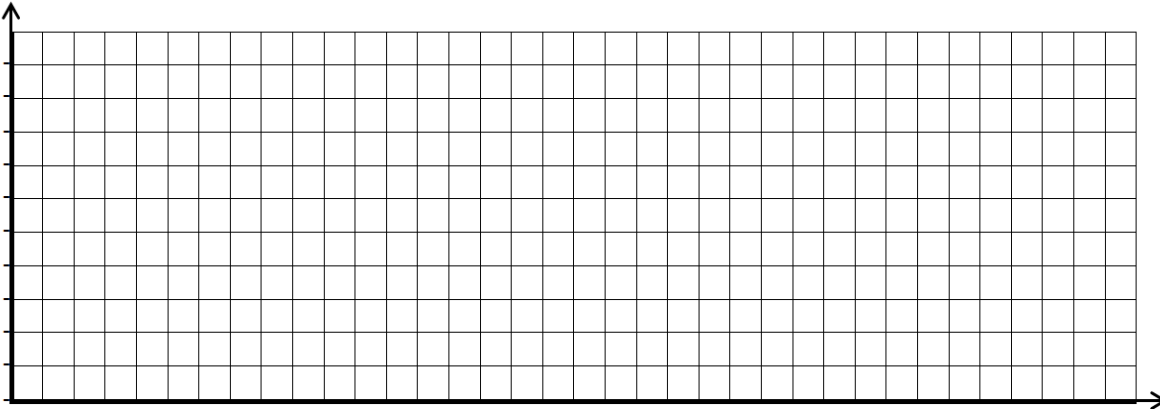
- She stopped to grab a bite to eat 15 minutes in to her ride. How far from home was she?
- What is the distance between home and the store?

2. This graph shows Francesco's walk to home from his car.

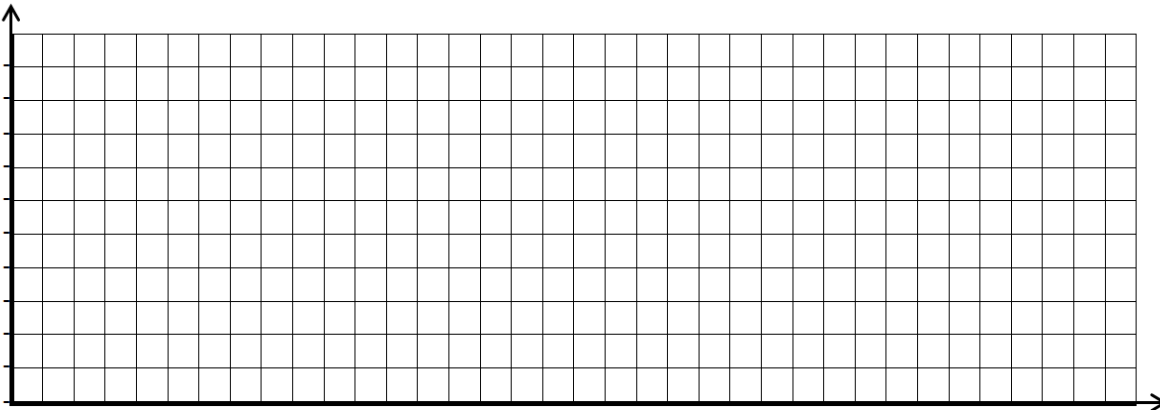
- When was he travelling the fastest? What speed was he travelling?
- After 5 seconds, did he make it home? Explain.
- Create a story that could match this graph.



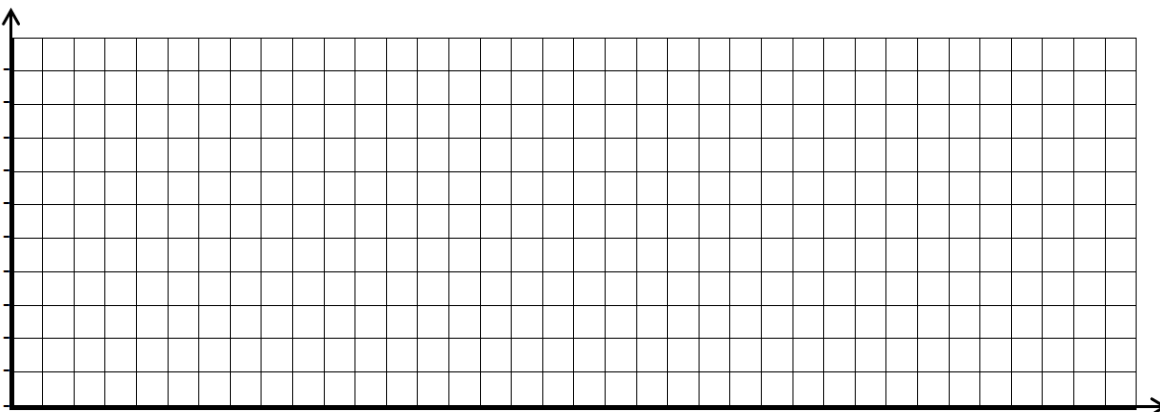
3. Ak is walking towards home. He starts 25m away. He walks at a speed of 1m/sec for 5 seconds, stops for 10 seconds to tie his shoe, and then keeps moving towards home at a speed of 2m/sec. Draw Ak's distance time graph.



4. Kristina leaves home to go to the mailbox. She walks at a steady speed of 3m/sec. After 4 seconds, she stops for 8 seconds to let a car pass. She then continues to the mailbox at 1m/second. The mailbox is 15m away. It takes her 5 seconds to get the mail. She then turns around and runs home at a speed of 5m/second. Draw Kristina's distance time graph.



5. Matthew gets in his car and leaves home. His car accelerates for 20 seconds, then he drives at a constant speed for 30 seconds. He then decelerates for 15 seconds, bringing him to a stop. Draw a distance time graph showing Matthew's movements.



Need more practice?

For each of the following graphs, create a story that models the person's movement. Be sure to include speeds.

