

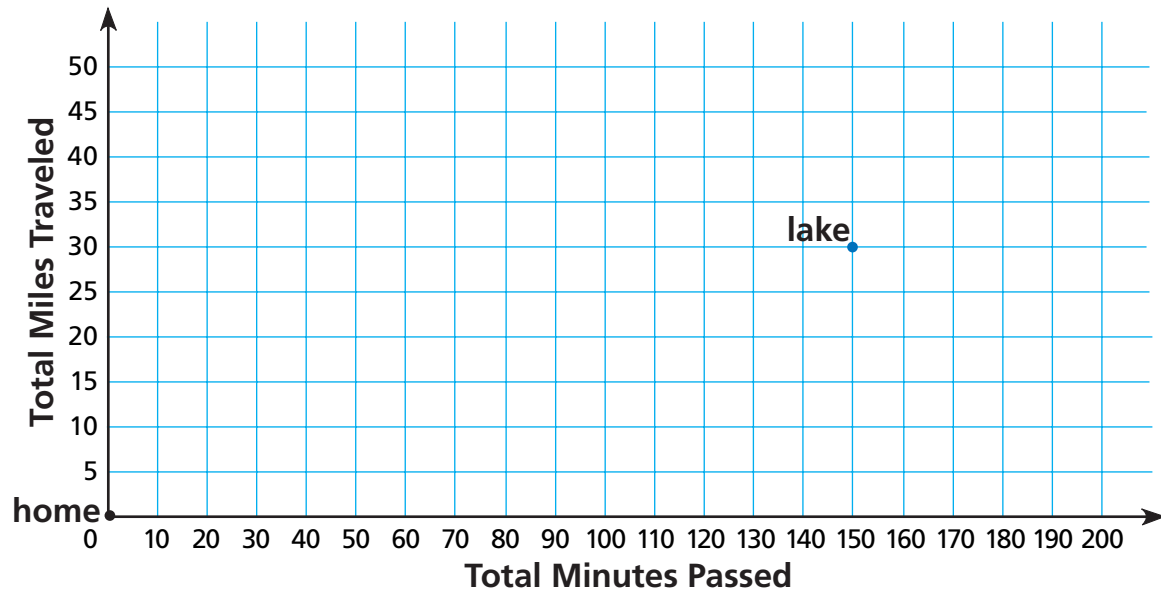
# Graphing the Story of a Trip

NCTM Standards 2, 3, 4, 5, 6, 7, 8, 9, 10

- 1 As you read the story of Matthew's bike ride, use the grid to record how far he had gone by that time. Label points on the graph with the names of the landmarks they correspond to. Assume that Matthew kept a constant speed all the way from one landmark to the next so that you can connect each point to the next with a line segment.

**Matthew went on a bike ride. He recorded the time when he passed certain landmarks. He started from home at noon. At 12:30, he reached the courthouse, having ridden a total of 10 miles. At 1:30, he passed the shopping center, 15 miles from home. It took him another hour to ride to the lake, a 15-mile trip from the shopping center. At 3:00, he stopped at the museum, having ridden a total of 35 miles since he was home.**

**MATTHEW'S BIKE RIDE**



- 2 Between which two landmarks was he going slowest? Explain how you know.

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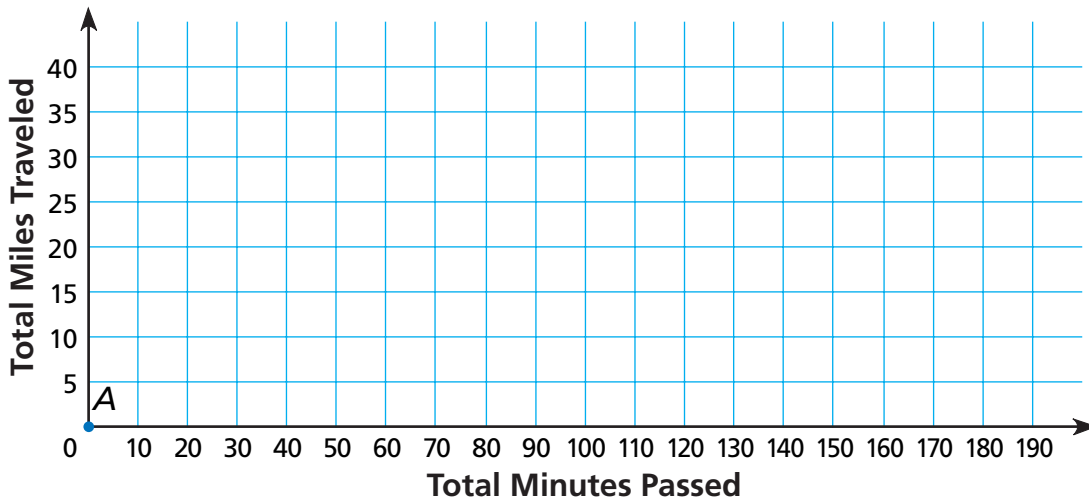


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**Natasha went for a bike ride. She rode 5 miles in the first 20 minutes, then she rode up a hill for 5 miles. That took her 40 minutes. The next 10 miles were easy and took her only 40 minutes. She took a 20 minute break for lunch. The next hill was really steep; it took her 50 minutes to go 5 miles. She rode the last 5 miles in 20 minutes.**

- 3 Make a graph to describe Natasha’s traveling. Assume that her speed did not change except for the times mentioned in the story.

**NATASHA’S BIKE RIDE**



- 4 How many miles did Natasha ride? \_\_\_\_\_
- 5 How long did the whole trip take? \_\_\_\_\_
- 6 Was Natasha riding more quickly when she had gone 15 miles, or when she had gone 22 miles? \_\_\_\_\_
- 7 On the graph, label each point you drew with a letter from B to G. What does the line segment between D and E show about how far Natasha rode during that part of her day?

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**8 Challenge** List the segments in order from the one showing the slowest speed to the fastest.

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