11-3 Constant Speed

Digital Resources

CCSS: 6.RP.A.3b: Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*

Launch

MP2, MP6

Three riders try out for one spot on a bike team with different coaches for different distances with different times.

What factors should the coaches consider when picking a rider? Which rider should they pick? Justify your choice.

Rider	Distance (miles)	Time (minutes)
Rider 1	5	20
Rider 2	6	30
Rider 3	8	40

Factors to Consider:

The Rider to Pick:

Reflect What could the coaches have done to make the try-outs better?

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Got It?

PART 1 Got It

Lisa bikes at a constant speed of 8 miles per hour. If she bikes for 30 minutes, how far does she travel?

PART 2 Got It

A bus travels 70 miles in 2 hours. What is the speed of the bus in miles per hour? Use the equation $d = rt$.

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Got It?

PART 3 Got It (1 of 2)

On an even busier road, your friend's mother drives 12 miles in 36 minutes. At this speed, how long does it take your friend's mother to drive 2 miles?

PART 3 Got It (2 of 2)

Your friend plans to bike to school. Your friend bikes at a constant speed of 9 miles per hour and lives 6 miles from school. If your friend leaves home 35 minutes before school starts, will your friend make it to school on time?

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Close and Check

Focus Question

MP3, MP7

What is the relationship between distance and time? How can you use this relationship?

Do you know HOW?

1. Millions of monarch butterflies migrate from Canada to Mexico each year. They travel at an average rate of 12 miles per hour. How far will the butterflies travel in 7 hours?

2. Some monarch butterflies complete the 1,800-mile journey in about 60 hours of flight time. What is their average speed?

3. If a bicyclist travels 3 miles in 15 minutes, how far will he travel in 25 minutes maintaining a constant speed?

4. You have completed 4 miles of a 10-mile race in 32 minutes. At this pace, how long will it take you to complete the entire race?

Do you UNDERSTAND?

5. **Writing** Two hikers start from the opposite ends of the same 18-mile trail. You know Hiker A's average speed r and Hiker B's finishing time t. Explain how you can determine which hiker completes the trail first.

6. **Reasoning** Your friend runs a 500-yard race with a goal to complete it in less than 3 minutes. If her average speed is 200 yards per minute, will she achieve her goal? Explain.

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