Ascend Math®

Name: _____

Modeling Distance, Rate, and Time - A05_06_01



Follow along with the video and take notes.

Vocabulary. Use the space below to make notes about each term as you watch the video.

Distance	
Rate	
Time	

Explore and Understand. Use the table below to explore the relationship between distance, rate, and time along with the video lesson.

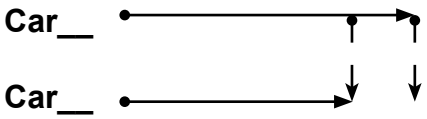
Rate (speed): _____

Time(hr.)	**1**	**2**			**t**
Distance(mi)					

Modeling with Distance, Rate, and Time

Two cars leave Springfield at the same time and travel in the same direction on the interstate. One car travels at a constant speed of fifty-two miles per hour and the other car travels at a constant speed of fifty-five miles per hour. In how many hours will the cars be twelve miles apart?

Complete the sketch:



	distance	**=**	**rate**	**•**	**time**
Car 1		=		•	
Car 2		=		•	

Use the space below to show the math you used when you checked your answer.

After _____ hours, the two cars will be 12 miles apart.

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Modeling with Distance, Rate, and Time

Felix and Enzo were riding bikes along a straight trail; they began at the same place and traveled in opposite directions. Felix's speed was two miles per hour slower than Enzo's speed. If they were fifty miles apart after two and a half hours, what was the speed of each bicyclist?

Draw a sketch:

	distance	=	rate	•	time
Felix		=		•	
Enzo		=		•	

Use the space below to show the math you used when you checked your answer.

Enzo traveled at a rate of _____ miles per hour and Felix traveled at a rate of _____ miles per hour.



Practice

Now you try it!

1. Roma and Inez are traveling in a car at a constant speed of 72 miles per hour to a concert. The concert venue is 252 miles away. If they leave for the concert at 3:30 pm, what time will they arrive?

2. Two trains leave the same station from the same spot at the same time traveling in opposite directions. One train travels at a constant rate of 65 miles per hour and the other travels at a constant rate of 70 miles per hour. After how many hours will the cars be 472.5 miles apart?

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