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## Date\_

- A diesel train made a trip to the fueling station and back. The trip there took 12 hours and the trip back took 15 hours. It averaged 14 mph faster on the trip there than on the return trip. Find the diesel train's average speed on the outbound trip.
- Mary drove to the ferry office and back. The trip there took five hours and the trip back took four hours. She averaged 10 km/h faster on the return trip than on the outbound trip. Find Mary's average speed on the outbound trip.

- A cargo plane and an Air Force plane left Paris at the same time. The planes flew in opposite directions. The Air Force plane flew 150 mph faster than the cargo plane. After six hours they were 4800 mi. apart. Find the cargo plane's speed.
- 4) Gabriella made a trip to the ferry office and back. The trip there took four hours and the trip back took five hours. She averaged 14 mph faster on the trip there than on the return trip. Find Gabriella's average speed on the outbound trip.

- 5) Jessica left the hardware store driving toward the mountains one hour before Shayna. Shayna drove in the opposite direction going 10 mph faster than Jessica for two hours after which time they were 170 mi. apart. Find Jessica's speed.
- 6) A freight train left Washington traveling north 14 hours before a diesel train. The diesel train traveled in the opposite direction going 0 mph slower than the freight train for three hours after which time the trains were 800 mi. apart. How fast did the freight train travel?

- 7) Jenny traveled to her cabin on the lake and back. The trip there took five hours and the trip back took three hours. She averaged 22 mph faster on the return trip than on the outbound trip. What was Jenny's average speed on the outbound trip?
- 8) Carlos left home driving toward the mountains two hours before Danielle. Danielle drove in the opposite direction going 10 km/h faster than Carlos for two hours after which time they were 200 km apart. How fast did Carlos drive?

- 9) Gabriella left school and drove toward the town hall. Nicole left one hour later driving 10 mph faster in an effort to catch up to her. After five hours Nicole finally caught up. Find Gabriella's average speed.
- 10) Shreya and Mei left home at the same time. They drove in opposite directions. Mei drove 20 km/h faster than Shreya. After two hours they were 220 km apart. Find Shreya's speed.

- 11) An Air Force plane left Singapore and flew toward Jakarta. A jet left one hour later flying 30 mph faster in an effort to catch up to it. After six hours the jet finally caught up. What was the Air Force plane's average speed?
- 12) Lea and Mary left the hardware store at the same time. They traveled in opposite directions. Mary traveled 22 km/h faster than Lea. After two hours they were 180 km apart. Find Lea's speed.

## Answers to Rate of change

1) 70 mph	2) 40 km/h	3) 325 mph	4) 70 mph
5) 30 mph	6) 40 mph	7) 33 mph	8) 30 km/h
9) 50 mph	10) 45 km/h	11) 180 mph	12) 34 km/h

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