

A.M.1: Calculate rates using appropriate units (e.g., rate of a space ship versus the rate of a snail)

1. A plane flies 600 miles with a tail wind in 2 hours. It takes the same plane 3 hours to fly the 600 miles when flying against the wind. What is the plane's speed in still air?
[A] 275 mph [B] 300 mph
[C] 250 mph [D] 50 mph
2. If a car traveled 275 miles in 5.25 hours, how far would it travel in 1 hour? Round to the nearest tenth.
[A] 0.523 [B] 0.524
[C] 52.3 [D] 52.4
3. Randy drove from his home to Dallas at an average speed of 50 mph. On the return trip, he drove at an average speed of 55 mph. The return trip took Randy 1 hour less than the trip to Dallas. How many total hours did he travel?
4. Leslie and Kathy drove a total of 354 miles in 9.8 hours. Leslie drove the first part of the trip and averaged 35 miles per hour. Kathy drove the remainder of the trip and averaged 45 miles per hour. For what length of the time did Leslie drive?
5. Fran drove 250 miles on her vacation. She drove an average of 1.1 times faster on the second half of her trip than she did the first half of her trip. Write a simplified expression for the time she spent driving.
6. Mrs. Walker drove to her sister's home, which was a distance of 679 miles. If she completed the trip in 13 hours of nonstop driving, did she comply with the 55 mi/h speed limit? Provide an explanation for your answer.

Integrated Algebra Practice: A.M.1 #1

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[1] C

[2] D

[3] 21 hours

[4] 8.7 hours

[5] $\frac{2625}{11x}$

[6] Yes, because $13 : 679$ is equal to about $1 : 52$.