Math Sheet

Name _____ Score _____ Teacher _____ Date _____

Distance, Rate, and Time Word Problems

Write an equation for each story. Solve for the requested quantity, round the final answer to the nearest hundredth, and include mph or hours.

1. Tim and Melanie leave the same place simultaneously and travel in opposite directions at 31 mph and 47 mph. How many hours after their simultaneous departure will they be 612 miles apart?

2. A plane flies to Atlanta at 203 mph. It returns along the same route for the same distance at 293 mph, taking 14 hours. How long did the outgoing trip take?

3. A traveler takes 6 hours on the outgoing leg. The return leg follows the same route for the same distance and takes 10 hours at 89 mph. What was the outgoing speed?

4. Jason and Fred leave the same place simultaneously and travel in opposite directions at 67 mph and 75 mph. How many hours after their simultaneous departure will they be 446 miles apart?

5. Mike starts driving from downtown. After a head start of 6 hours, another driver leaves from the same point on the same route, traveling 47 mph faster. The second driver catches the first after 2 hours of pursuit. What was the first driver's speed?

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Write an equation for each story. Solve for the requested quantity, round the final answer to the nearest hundredth, and include mph or hours.

6. A truck and a van leave the same place simultaneously in opposite directions. They travel for 14 hours; the truck travels at 31 mph, and they finish 1183 miles apart. What was the van's speed?

7. An airplane flies out at 272 mph and returns along the same route for the same distance at 313 mph. The outgoing trip takes 2 hours longer than the faster return trip. How long does the return trip take?

8. Dan drives at 76 mph. Nancy leaves later from the same point, follows the same route at 84 mph, and catches Dan after Nancy has driven for 9 hours. How many total hours has Dan driven, measured from Dan's departure to the catch-up?

9. A train leaves a station. After a head start of 6 hours, a car leaves the same station at 56 mph and follows the same route. The car catches the train after the car has traveled for 9 hours. What was the train's speed?

10. Mary starts driving to a vacation destination. After a head start of 3 hours, another driver leaves from the same point on the same route, traveling 39 mph faster. The second driver catches the first after 5 hours of pursuit. What was the first driver's speed?