

Name: _____

Velocity/Acceleration/ Distance Worksheet

1. Write down the equation for acceleration, velocity, distance and time (using the velocity equation).

2. A racecar driver, on a straight road, decreases her speed from 62 m/s to 34 m/s in 12 seconds. What is her acceleration?

3. If you are riding your bike home from a friends house at an average velocity of 28.0 m/s and you have to travel a total distance of 525 meters, how long will it take you to get home?

4. I am traveling in a car that has traveled 85 kilometers in 905 seconds. What is the velocity of the car?

5. A high school pitcher throws a fastball which travels at 30 ft/sec. How long does it take to cross the plate 60 feet away?

6. A bus travels on the back roads at 75 km/hr. How far does the bus travel in 2 hours?

7. A runner is running at 5.2 m/s for the 1st part of the race, but as he nears the finish line he sprints at a speed of 8.9 m/s for the last 60 seconds. What was his acceleration during the last part of the race?

8. A ball is rolled up a hill at a distance of 47 meters, then stops and begins to start rolling backwards. This ball rolls back 86 meters until it comes to a complete stop.

a. What is the distance that the ball has traveled?

b. What is the displacement of this ball?

9. I decide to go on a road trip with my friends and it comes to find out we all travel at different speeds on the highway. I drove 216 miles in 3.0 hours, Nick drove 356 miles in 4.5 hours, and Josh drove 710 miles in the last 10.0 hours of the drive.

a. How many miles did we travel?

b. How long did it take for us to reach our destination?

c. What was the average speed for the whole trip?