Name: Period:

Equations of Motion 1A: *= d/t*

*Show all work and include units*

1. A car travels a distance of 98 meters in 10 seconds. What is the average speed of the car during this 10.-second interval?

2. A group of bike riders took a 4.0 hour trip. During the first 3.0 hours, they traveled a total of 50 kilometers, but during the last hour, they traveled only 10 kilometers. What was the group's average speed for the entire trip?

3. A runner completed the 100-meter dash in 10.0 seconds. Her average speed was

4. A cart starting from rest travels a distance of 3.6 meters in 1.8 seconds. The average speed of the cart is

5. What is the total distance traveled by an object that moves with an average speed of 6.0 meters per second for 8.0 seconds?

6. A car travels between the 100-meter and 250-meter highway markers in 10 seconds. The average speed of the car during this interval is

Name: Period:

Equations of Motion 1B: *= d/t*

*Show all work and include units*

1. A baseball pitcher throws a fastball at 42 meters per second. If the batter is 18 meters from the pitcher, approximately how much time does it take for the ball to reach the batter?

2. What is the average velocity of a car that travels 30 kilometers due west in 0.50 hour?

3. A car travels 90 meters due north in 15 seconds. Then the car turns around and travels 40 meters due south in 5.0 seconds. What is the magnitude of the average velocity of the car during this 20-second interval?

4. One car travels 40 meters due east in 5.0 seconds, and a second car travels 64 meters due west in 8.0 seconds. During their periods of travel, the cars definitely had the same

5. In a 4.0-kilometer race, a runner completes the first kilometer in 5.9 minutes, the second kilometer in 6.2 minutes, the third kilometer in 6.3 minutes, and the final kilometer in 6.0 minutes. The average speed of the runner for the race is approximately

6. On a highway, a car is driven 80 kilometers during the first 1.00 hour of travel, 50 kilometers during the next 0.50 hour, and 40 kilometers in the final 0.50 hour. What is the car’s average speed for the entire trip?