#13B: Speed & Velocity Worksheet Name _____

1. Celeste is superhuman and backstrokes at an average speed of 8 meters per second. How long will it take her to complete a race of 200 meters length?

G:

U:

E:

S:

S:

2. Marisol's calculations of a tarantula showed that the spider was able to cover 20 centimeters in 5 seconds. What was the average speed of the spider?

G:

U:

E:

S:

S:

3. Ashley's SUV was detected exceeding the posted speed limit of 60 kilometers per hour. How many kilometers per hour would she have been traveling over the limit if she had covered a distance of 10 kilometers in 5 minutes?

G:

U:

E:

S:

S:

4. What is the average speed of a bus going from Los Angeles to Sacramento if it travels 385 miles in 8.0 hours?

G:

U:

E:

S:

S:

5. Destiny walks north 1 meter, then walks west 8 meters, then south 1 meter. It takes her 4 seconds total to walk this distance. Draw a diagram of her motion and find her average velocity.

6. What is the velocity of the bus in #4? The straight line distance (aka displacement) from Los Angeles to Sacramento is 355 miles and the time is still 8.0 hours. (If you aren't sure which direction it is from LA to Sac, look at a map, and use cardinal directions)

G:

U:

E:

S:

S:

7. You take a flight from Los Angeles to Sacramento. A benefit of flying is that you basically travel in a straight line, so for this problem, assume you're traveling in a straight line. The distance is 355mi and it takes you 1.25 hours. What would your average speed be?

G:

U:

E:

S:

S:

8. What is your velocity in #7?

9. A slug crawls onto a meter stick. The slug crawls from the 20.0 cm mark to the 50.0 cm mark in 1.00 minute. What is the velocity of the slug in meters per second?

G:

U:

E:

S:

S:

10. If it takes you 23 hours to go from Omaha to Los Angeles at a velocity of 70.0 mi/hr west, how far are you from your starting point?

G:

U:

E:

S:

S: