

# Velocity Practice

**Velocity is speed in a specific direction.** A car that travels 500 miles in 10 hours is traveling at a speed of 50 miles per hours toward the southeast. The speed of the car is 50 miles per hour. The velocity of the car is 50 miles per hour/southeast.

1. Find the velocity of a long-distance runner who runs south for 30 miles in 6 hours.

Velocity: \_\_\_\_\_ miles per hour/\_\_\_\_\_

2. A jet airplane flies southwest from St. Louis, Missouri, to Phoenix, Arizona, in 3 hours. The distance is 1,500 miles. The velocity is: \_\_\_\_\_/\_\_\_\_\_

3. A train travels north a distance of 1,200 kilometers in 20 hours. The velocity of the train is: \_\_\_\_\_/\_\_\_\_\_

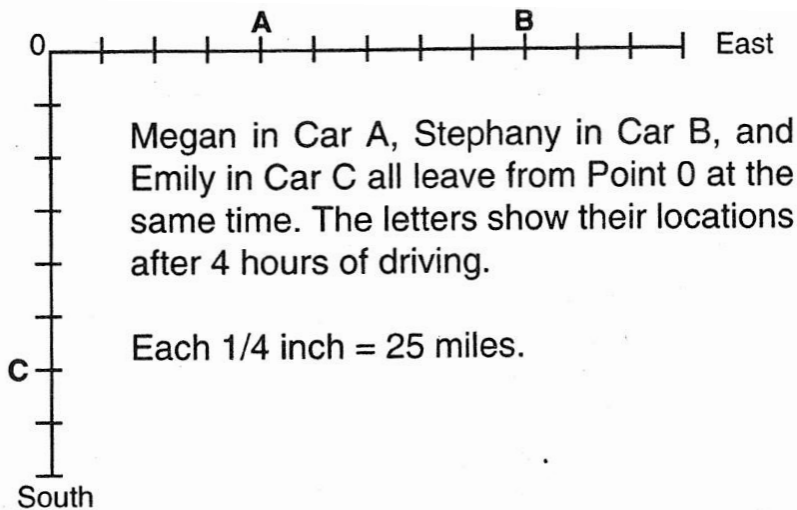
4. Indicate which of the following are SPEEDS and which are VELOCITIES:

a. 125 cm/sec –

b. 30 km/hr northwest –

c. 350 m/sec north –

**Diagrams may be used to show data about speed and velocity.** Refer to the diagram below and answer the questions that follow.



5. After 4 hours of driving, Megan's average speed would be \_\_\_\_\_ mph.

6. After 4 hours of driving, Megan's direction would be \_\_\_\_\_.

7. After 4 hours of driving, Megan's velocity is:

a. 25 mph east      b. 25 mph south      c. 56.25 mph west      d. 37.5 mph south

8. After 4 hours of driving, Stephany's average speed would be \_\_\_\_\_ mph.

9. After 4 hours of driving, Stephany's direction would be \_\_\_\_\_.

10. After 4 hours of driving, Stephany's velocity is:

a. 25 mph east      b. 25 mph south      c. 56.25 mph west      d. 56.25 mph east

11. After 4 hours of driving, Emily's average speed would be \_\_\_\_\_ mph.

12. After 4 hours of driving, Emily's direction would be \_\_\_\_\_.

13. After 4 hours of driving, Emily's velocity is:

a. 56.25 mph east      b. 25 mph south      c. 37.5 mph north      d. 37.5 mph south

Name: \_\_\_\_\_



# Are you **FASTER** than...

# 7

Directions:

Convert your speed from m/s to mph.

- Divide your speed by 1609.
- You will get a VERY small decimal – do not clear this number. Multiply your answer by 3600.
- This is your speed in miles per hour.

Your running speed: \_\_\_\_\_ m/s

Your converted speed: \_\_\_\_\_ mph

Speed Formula:  $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$

<b>Animal</b>	<u>Distance &amp; Time</u>	<u>Speed</u>
<b>Kangaroo</b>	D = 30 mi. T = 1 hr.	
<b>Cat</b>	D = 90 mi. T = 3 hr.	
<b>Giraffe</b>	D = 48 mi. T = 1.5 hr.	
<b>Elephant</b>	D = 5 mi. T = .2 hr.	
<b>Grizzly Bear</b>	D = 15 mi. T = .5 hr.	
<b>Blake Mamba Snake</b>	D = 4mi. T = .2 hr.	
<b>Lion</b>	D = 50 mi. T = 1 hr.	
<b>Elk</b>	D = 9 mi. T = .2 hr.	
<b>White-tailed Deer</b>	D = 2 mi. T = .0667 hr.	
<b>Zebra</b>	D = 20 mi. T = .5 hr.	
<b>Greyhound</b>	D = 39 mi. T = 1 hr.	
<b>Garden Snail</b>	D = 3 mi. T = 100 hr.	
<b>Pig</b>	D = 11 mi. T = 1 hr.	
<b>Spider</b>	D = 117 mi. T = 100 hr.	
<b>Ostrich</b>	D = 2 mi. T = .05 hr.	
<b>Squirrel</b>	D = 3 mi. T = .25 hr.	
<b>Mouse</b>	D = 2 mi. T = .25 hr.	
<b>Chicken</b>	D = 9 mi. T = 1 hr.	
<b>Peregrine Falcon</b>	D = 50 mi. T = .25 hr.	
<b>Reindeer</b>	D = 32 mi. T = 1 hr.	
<b>Rabbit</b>	D = 7 mi. T = .2 hr.	
<b>Giant Tortoise</b>	D = 1.7 mi. T = 10 hr.	
<b>Three-toed sloth</b>	D = 15 mi. T = 100 hr.	

Highlight the animals that you were faster than.

