Speed & Velocity

Name:_____

Class:_____

Solve the following problems relating to speed and velocity. Be sure to show ALL your work.

Formulas:

- ☐ Speed = distance / time
- ☐ Velocity = displacement / time plus a given direction

1. A racehorse that wins the 3200 meter Cup in a time of 200 seconds. What is the racehorse's average speed?

2. The speed of sound in air is roughly 1,484 m/s. How far, in meters, would a sound wave travel in 3 seconds?

3. A dolphin keeps up with a boat for a distance of 51 miles for 3 hours. What is the dolphin's average speed?

4. A car traveling 65 kilometers per hour travels 195 kilometers. How long did it take the care to travel that distance at that speed?

5. If a rocket travels 35,200 miles in 2 hours, what is its speed?

Speed & Velocity

Formulas:
- ☐ Speed = distance / time
- ☐ Velocity = displacement / time plus a given direction

6. What is the velocity of a rocket that goes 700 kilometers north in 25 seconds?

7. How much time does it take a person to walk 8 kilometers east at a velocity of 4 kilometers per hour?

8. A motorcycle travels 300 miles south in 3 hours. What is the average velocity?

9. If the velocity of a car is 45 kilometers per hour west, how far can it travel in 0.5 hours?

10. An airplane travels 4,425 kilometers west in 5 hours. What is its average velocity?