Name: _____ Date: _____ Block: _____

Speed, Velocity, & Acceleration Calculations - Practice #2

For the following questions, use the correct formula to calculate the answers and include the units for each problem as well. Show your work (formula, numbers with correct units and answer with correct units).

$$Speed = \frac{distance}{time} \qquad Velocity = \frac{distance}{time} \qquad Acceleration = \frac{final\ velocity - initial\ velocity}{time}$$

1. How much time does it take a person to walk 12 km north at a velocity of 6.5 km/h?

Solving for	Equation
Substitute (work)	Answer w/ units

2. A car traveled 1425 km from El Paso, TX to Dallas, TX in 12. 5 hours. What was the car's speed?

Solving for	Equation
Substitute (work)	Answer w/ units

3. If the velocity of a car is 45 km/h west, how far can it travel in 0.5 hours?

Solving for	Equation
Substitute (work)	Answer w/ units

4. If an airplane travels a distance of 500 km in 5 hours, what is its average speed?

Solving for	Equation
Substitute (work)	Answer w/ units

5. A boat is traveling a distance of 90 km at a speed of 30 km/s, how long will it take to reach its destination?

Solving for	Equation
Substitute (work)	Answer w/ units

6. An arrow is moving at 35 m/s and travels for 5 seconds. How far did the arrow travel?

Solving for	Equation
Substitute (work)	Answer w/ units

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

Solving for	Equation
Substitute (work)	Answer w/ units

8. How long does it take a man to travel 6 km if his speed is 3 km/h?

Solving for	Equation
Substitute (work)	Answer w/ units

9. How far will a bus travel if it averages a speed of 65 km/h for 7 hours?

Solving for	Equation
Substitute (work)	Answer w/ units

10. A patriot missile is moving at 240 km/h east and travels to its maximum speed of 450 km/h east in 3 minutes. What is the acceleration?

Solving for	Equation
Substitute (work)	Answer w/ units

11. A car goes from rest to 50 m/s in 5 seconds. What is the acceleration?

Solving for	Equation
Substitute (work)	Answer w/ units

12. A boat goes from 84 km/h to 42 km/h in 7 seconds. What is the deceleration?

Solving for	Equation
Substitute (work)	Answer w/ units

13. What is the acceleration of a car that goes from 65 km/h to 125 km/h in 5 seconds?

Solving for	Equation
Substitute (work)	Answer w/ units