Name _____ Date _____ Period _____

Worksheet: Momentum Word Problems

CHAPTER 8: Momentum

Directions: Answer the following questions concerning the conservation of momentum using the equations below. Show all of you work to receive credit.

$$p = mv \qquad Ft = \Delta(mv) \qquad impulse = F\Delta t$$

1. A net force of ***100 Newton's*** is applied to a wagon for ***5 seconds***. This causes the wagon to undergo a change in **momentum** of

$Ft = \Delta mv$

2. A net force of ***200 Newton's*** is applied to a wagon for ***3 seconds***. This causes the wagon to undergo a change in **momentum** of

3. A **2.0-kg** ball has a momentum of **25 kg·m/s**. What is the ball's **speed**?

$P = m \cdot v$

4. A **1.0-kg** ball has a momentum of **12 kg·m/s**. What is the ball's **speed**?

5. A **1.5-kg** ball is thrown at **10 m/s**. What is the ball's **momentum**?

6. A ball is moving at **7.0 m/s** and has a momentum of **100 kg·m/s**. What is the ball's **mass**?