Day 9 - Rate Conversions \& The Metric System
Practice Assignment

Name: $\qquad$
Date: $\qquad$ Block: $\qquad$
Use dimensional analysis to convert the following. Round your answers to the nearest tenth. You MUST set up each problem using a conversion factor.

1. How many feet per second is 60 miles per hour?
2. How many inches per second is 50 yards per hour?
3. How many pounds per hour are in 721 kilograms per week? (Use $1 \mathrm{~kg}=2.2$ pound)
4. Imagine that water is leaking from a container, at a rate of $1.2 \mathrm{ml} /$ hour. If this rate does not change, how many milliliters of water will be lost in a week?
5. A pitcher throws a 98 mph fastball. How fast is that in feet per second?

## The Metric System

1. Write the equivalent measurements.
a. $65 \mathrm{dm}=$ $\qquad$ km
b. $2500 \mathrm{~mL}=$ $\qquad$ L
c. $0.58 \mathrm{dkg}=$ $\qquad$ cg
d. $580 \mathrm{dL}=$ $\qquad$ hL
2. Compare the measurements using <, >, or =. **SHOW YOUR WORK**
a. 880 cm $\qquad$ 9 m
b. 5020 mg $\qquad$ 5 g
c. 1500 hL $\qquad$ 1.5 L
d. $75 \mathrm{~g} \quad 7.5 \mathrm{dkg}$
