

Make the following conversions.

1. 261 grams to kilogram

$$\begin{array}{l} .261 \\ \text{or} \\ 0.3\text{kg} \end{array}$$

2. 3 days to seconds

$$259,200\text{sec}$$

3. 175 pounds to kilograms

$$79.6\text{kg}$$

4. 1 year to minutes

$$525,600\text{min}$$

Use dimensional analysis to convert the following rates:

5. 22.4 kilograms/liter to kilograms/milliliters

$$0.0224\text{ kg/mL}$$

6. 8.41 grams/milliliter to kilograms/liter

$$8.4\text{ kg/L}$$

7. 3.8 feet/second to miles/year

$$22,696.4\text{ mi/yr.}$$

8. 25 meters/second to miles/hour

$$55.9\text{ mph}$$

9. Traveling at 65 miles/hour, how many minutes will it take to drive 125 miles?

115.38 min.

10. A baseball scout for the Quad City River Bandits is heading to UNI to check out their starting pitcher. The coach for the Bandits wants to know how fast he can throw (mph), but the radar gun broke. The scout knows that the distance from the pitcher's mound to home plate is 60.5 feet. If it took 0.5 seconds for the ball to reach home plate, how fast can the pitcher throw the ball in miles per hour?

82.5 mph

The top three touchdown scoring wide receivers in the NFL for 2011 are listed below, along with their 40 yd. dash time from the NFL combine.

| Player Name | 40 yard dash time |
|----------------|----------------------|
| Calvin Johnson | 1655 feet per minute |
| Jordy Nelson | 8.8 yards per second |
| AJ Green | 18.7 miles per hour |

11. Based on the data above, who is the fastest wide receiver?

Calvin