

Name \_\_\_\_\_ Date \_\_\_\_\_

## Dimensional Analysis and Metric Conversions Practice

Common Conversion Factors			
1 yr = 365 days	1 mi = 5280 ft	454 g = 1 lb	1 gal = 3.79 L
1 day = 24 hours	1 ft = 12 in	1 lb = 16 oz	264.2 gal = 1 m <sup>3</sup>
1 hr = 60 minutes	1 in = 2.54 cm	1 kg = 2.2 lbs	1 gal = 128 fluid oz
1 min = 60 sec	3 ft = 1 yd	946 mL = 1 qt	4 qt = 1 gal

1. In the past month, Cobb County has had 0.6 yards of rain. Express this amount in centimeters.

2. How many fluid ounces are in a 2 Liter Coca-Cola?

3. Diego is working on the following problem in class. What conversion factor should go in the missing fraction?

**A student can run 100 yards in 15 seconds. Convert this speed to miles per hour.**

$$\frac{100 \text{ yards}}{15 \text{ sec}} \cdot \frac{?}{?} \cdot \frac{1 \text{ mi}}{5280 \text{ ft}} \cdot \frac{60 \text{ sec}}{1 \text{ min}} \cdot \frac{60 \text{ min}}{1 \text{ hr}}$$

A.  $\frac{12 \text{ ft}}{1 \text{ yd}}$

B.  $\frac{1 \text{ mi}}{3 \text{ yd}}$

C.  $\frac{3 \text{ ft}}{1 \text{ yd}}$

D.  $\frac{1 \text{ ft}}{3 \text{ yd}}$

**Match the unit to the correct abbreviation.**

\_\_\_ 4. Kilometer

\_\_\_ 5. Decigram

\_\_\_ 6. Miles

\_\_\_ 7. Milliliter

\_\_\_ 8. Centimeter

\_\_\_ 9. Dekagram

\_\_\_ 10. Meter

\_\_\_ 11. Pound

\_\_\_ 12. Kilogram

\_\_\_ 13. Feet

A. cm

B. dg

C. dkg

D. ft

E. kg

F. km

G. lb

H. m

I. mi

J. mL

14. Which of these are metric units?

15. Which of these measure length?

15. The symbols for units of length in order from **smallest to largest** are

A. m, cm, mm, km

C. km, mm, cm, m

B. mm, m, cm, km

D. mm, cm, m, km

**Convert each of the following.**

16. 5 L = \_\_\_\_\_ mL

18. 104 km = \_\_\_\_\_ m

17. 16 cg = \_\_\_\_\_ mg

19. 198 dkg = \_\_\_\_\_ kg