

Name: _____ Date: _____

Dimensional Analysis and Conversions Homework

1 min = 60 sec	1 in = 2.54 cm	1 lb = 16 oz	1 gal = 3.79 L
1 hr = 60 min	1 yd = 36 inches	1 ton = 2000 lbs	264.2 gal = 1 cubic meter
1 day = 24 hrs	1 yd = 3 ft	1 kg = 2.2 lbs	20 drops = 1 mL
1 week = 7 days	1 km = 0.621 mi	1 lb = 454 g	1 L = 1000 mL
1 year = 52 weeks	1 mi = 5,280 ft	1 cc is 1 cm ³	1 mL = 1 cm ³

Compare the measurements using <, >, or =.

1. 63 cm _____ 6 m

2. 43 mg _____ 5 g

3. 5 g _____ 508 mg

4. 3.6 m _____ 36 cm

5. 19 in _____ 2 ft

6. 18 cups _____ 1 gal

7. 3 mi _____ 3.14 km

8. 1.09 g/mL _____ 1 lb/qt

Answer the following questions using conversions and dimensional analysis.

9. Sally is on the All-City track team and has to run the 100-meter dash. How many deka-meters will she run?
10. Five year-old Michelle weighs 75 deka-grams. What is her weight in centi-grams?
11. The doctor told Ms. Oldham to drink 4 liters of water a day. After 7 days, how many milliliters of water did she drink? If she has to drink a minimum of 80,000 milliliters before she can participate in sports, how many days should it take?
12. A contractor wants to order concrete for a wall that is 24 feet long, 10 feet high, and 9 inches thick. How many cubic yards should he order? $V = lwh$
13. A notebook computer has a mass of 2.25 kilograms. About how many pounds does the notebook weigh?

