

Homework 1.4 Dimensional Analysis

CONVERSIONS

1 kilometer = 1000 meters	1 mile = 5280 feet	1 gallon = 4 quarts	1 ton = 2000 lbs
1 meter = 100 centimeters	1 yard = 3 feet	1 quart = 2 pints	16 pounds = 16 oz.
1 centimeter = 10 millimeters	1 foot = 12 inches	1 pint = 2 cups	
1 mile = 1760 yards	1 liter = 1000 millimeters	1 cup = 8 ounces	
1 year = 365 days	1 year = 12 months	1 year = 52 weeks	1 week = 7 days
1 hour = 60 minutes	1 minute = 60 seconds		

Convert units using dimensional analysis.

1. 10560 feet into miles

2. 8800 yards into miles

3. 2 miles into yards

4. 60 inches into feet

5. 5 gallons into quarts

6. 9 centimeters into millimeters

7. 0.245 kilometers into meters

8. 2000 centimeters into meters

9. 60 miles per hour into feet per hour

10. 130 meters per second into meters per hour

11. 1100 feet per second into miles per hour

12. 53 yards per hour into inches per week

#### 1.4 Answers

1 2 miles 2 5 miles 3 3520 yards 4 5 feet 5 20 quarts 6 90 millimeters 7 245 meters 8 20 meters  
9 316,800 feet/hour 10 468,000 meters/hour 11 750 miles/hour 12 320,544 inches/week