

Problem set - Dimensional analysis - 2

Name: _____ Date: _____

Use dimensional analysis to answer the questions. Show all of your work. You may use a calculator and notes.

There are 12 inches in one foot, 3 feet in one yard, and 1760 yards in one mile. One meter is 39.37 inches.

1. How many inches is 23 feet?
2. How many inches is $4\frac{2}{3}$ yards?
3. How many feet is 0.25 miles?
4. How many yards is 162 inches?
5. To the nearest hundredth of a meter, how many meters is 16 inches?
6. To the nearest meter, how far is 6.2 miles?

There are sixteen ounces in one pound, and two thousand pounds in one ton. A kilogram is 2.205 pounds.

7. How many pounds is $1\frac{5}{8}$ ton?

8. How many tons is 6,000 pounds?

9. How many ounces is half a kilogram?

There are eight fluid ounces in a cup, two cups in a pint, two pints in a quart, and four quarts in a gallon. One liter is 33.81 fluid ounces.

10. How many ounces is half a cup?

11. How many gallons is forty-eight pints?

12. How many quarts is 128 ounces?

13. To the nearest tenth of a liter, how many liters is 10 gallons?