

Dimensional Analysis Worksheet #2

Name _____

Period _____

Date _____

Convert each of the following as indicated. Use dimensional analysis. Show all your work.

1. $5.93 \text{ cm}^3 \rightarrow \text{m}^3$

2. $1 \text{ ft}^3 \rightarrow \text{m}^3$
($3.28 \text{ ft} = 1 \text{ m}$)

3. $175 \text{ lbs} \rightarrow \text{kg}$
($2.2 \text{ lb} = 1 \text{ kg}$)

4. $22.4 \text{ kg/L to kg/mL}$

5. $1.42 \text{ g/cm}^2 \text{ to mg/mm}^2$

6. $25 \text{ m/s to miles/hr}$

7. $8.24 \text{ g/cm}^2 \text{ to mg/mm}^2$

8. $3.8 \text{ km/sec to miles/year}$
($1 \text{ km} = 0.62 \text{ miles}$)

9. $10095 \text{ m/s to miles/s}$

10. $8.41 \text{ g/mL to kg/L}$

11. Convert 2.05×10^5 seconds into years. Express your answer in scientific notation

12. The total amount of fresh water on earth is estimated to be $3.73 \times 10^8 \text{ km}^3$. What is this volume in cubic meters?