

Name \_\_\_\_\_

## Metric Conversions and Dimensional Analysis #2

Complete the following metric conversions:

- 1)  $6.87\text{m} = ? \text{hm}$       **0.0687hm**      4)  $6.11\text{L} = ? \text{kL}$        **$6.11 \times 10^{-3} \text{kL}$**   
2)  $2.6 \text{mL} = ? \text{dL}$       **0.026dL**      5)  $2.52 \text{cg} = ? \text{mg}$       **25.2mg**  
3)  $0.678 \text{dag} = ? \text{mg}$        **$6.78 \times 10^3 \text{mg}$**       6)  $1.62\text{km} = ? \text{cm}$        **$1.62 \times 10^5 \text{cm}$**

Complete the following metric-U.S. conversions: (1in=2.54cm 1L=1.06q 1kg=2.2lbs)

- 7)  $492\text{cm} = ? \text{ft}$       **16.1ft**      10)  $93.3 \text{fl.oz} = ? \text{dL}$       **27.5dL**  
8)  $63.2\text{oz} = ? \text{hg}$       **18.0hg**      11)  $54.5\text{yds} = ? \text{m}$       **49.8m**  
9)  $2.81 \text{miles} = ? \text{cm}$        **$4.52 \times 10^5 \text{cm}$**       12)  $91.1 \text{cL} = ? \text{pints}$       **1.93 pints**

A little tougher....

- 13)  $0.863 \text{miles/min} = ? \text{cm/s}$        **$2.31 \times 10^3 \text{cm/s}$**   
14)  $6.44 \text{lbs/gal} = ? \text{g/mL}$       **0.776g/mL**  
15)  $14.1\text{in}^2 = ? \text{m}^2$        **$9.09 \times 10^{-3} \text{m}^2$**   
16)  $2.3\text{ft}^3 = ? \text{L}$       **65L**

Word problems

- 17) You buy a car that gets an average of 26.2miles per gallon and drive it for ten years. Your average yearly mileage is 8532 miles, and the average price of gas was \$3.25 per gallon, then how much did it cost to drive the car for ten years?

**$\$1.06 \times 10^4$**