CH 151
Sample Quiz #1 Name: _____ Lab Section: _____
Answers

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1. Automotive batteries generally are filled with sulfuric acid. If a battery has a volume of 1.86 L and contains 3.42×10^6 mg of sulfuric acid, what is the density of sulfuric acid in g/mL? (5 points)

   1.84 g/ mL

2. A child's fever medicine has a concentration of 250 mg/mL. If a child receives 2.0 teaspoons of this medicine, how many mg of medicine is being received? (1 teaspoon = 4.93 mL) (5 points)

   2500 mg

3. Perform the following calculations. Report the answer to the correct number of significant digits. (5 points)

   110.23 cm + 0.989 cm + 1.20 cm ***112.42 cm***

   $$\frac{\left(2.34 \times 10^3 \text{ cm}\right)\left(4.2021 \times 10^{-6} \text{ cm}\right)}{\left(8.7 \times 10^3 \text{s}\right)}$$

   1.1×10^{-6} cm^2 / s

   $154.0 = 3.76 \times Q$ Q = **41.0**

4. Convert the following quantities: (5 points) Watch sig figs!

   157.7 K to **°C**. **-115.5 °C**

   9.22 g/cm^3 to **g/mm^3** **9.22×10^{-3} g/mm^3**

   7.360 cg to **ng** **7.360×10^7 ng**