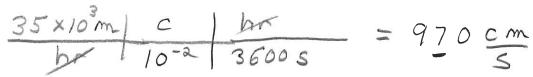
CHM 151 Quiz 2a 25 Pts Fall 2009 Name: SHOW ALL WORK TO RECEIVE CREDIT

 $G = 10^9$, $M = 10^6$, $k = 10^3$, $c = 10^{-2}$, $m = 10^{-3}$, $\mu = 10^{-6}$, $n = 10^9$, 2.54 cm = 1 in, 12 in = 1 ft, 5280 ft = 1 mile, 3 feet = 1 yd, 60 sec = 1 min, 1 hr = 60 min, 4 quarts = 1 gal, 2 pints = 1 quart, 454 g = 1 lb.

1. (5 Pts) A car is traveling at a speed of 35 km/hr. Determine how fast the car is going in cm/second.



2. (5 Pts) Chloroform, CHCl₃, has a density of 1.48 g/mL. Determine the mass of 452 mL of chloroform.

3. (8 Pts) Complete the following table:

Element or ion name	Element or ion symbol	Number of Protons	Number of Electrons	Number of Neutrons
nitrogen - 15	N-15	7	7	8
carbon-12	C-12	6	6	6
A magnesium-25 cation	25 Mg	12	10	13
An fluorine-19 anion	19-1- 9F	9	10	10

4. (2 Pts) Determine the answer with the correct number of significant figures for the following problem.

(Assume each number is a measurement)
$$\frac{25.4 - 17.2}{123} = 0.067$$

5. (5 Pts) The recommended adult dose of Elixophyllin®, a drug used to treat asthma, is 6 mg/kg of body mass. Calculate the dose in milligrams for a 185 lb person.

CHM 151 Ouiz 2B 25 Pts Fall 2009 Name: SHOW ALL WORK TO RECEIVE CREDIT

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1. (5 Pts) Chloroform, CHCl₃, has a density of 1.48 g/mL. Determine the mass of 652 mL of chloroform.

652 mt 1.489 = 965 9

2. (5 Pts) A car is traveling at a speed of 45 km/hr. Determine how fast the car is going in millimeters/second.

limeters/second. $\frac{45 \times 10^3 \text{ m}}{\text{ m}}$ $\frac{1}{10^{-3}}$ $\frac{1}{3600}$ $\frac{1}{2000}$ $\frac{1}{5}$ $\frac{1}{2000}$ $\frac{1}{5}$

3. (8 Pts) Complete the following table:

Element or ion name	Element or ion symbol N-14	Number of Protons	Number of Electrons	Number of Neutrons
carbon-13	C-13	6	6	7
An chlorine-37 anion	37ce1-	17	18	20
A magnesium-23 cation	23M2+	12	10	11

4. (2 Pts) Determine the answer with the correct number if significant figures for the following problem.

(Assume each number is a measurement) $\frac{25.4 - 17.2}{123} = 0.067$

5. (5 Pts) The recommended adult dose of Elixophyllin[®], a drug used to treat asthma, is 6 mg/kg of body mass. Calculate the dose in milligrams for a 195 lb person.

195/5/1 454/1 / R | 6 mg "El" = 531 mg