Chemistry 115 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Quiz 1a

Dr. Cary Willard February 6, 2013

All work must be shown to receive credit. Use correct significant figures.

1. (2 points) Write the name or symbol for the following elements
	1. Silver Ag
	2. F fluorine
2. (4 points) Write the following measurements in scientific notation with 3 significant figures.
	1. 35429173 g 3.55 x 107 g
	2. 0.000003296124 mL 3.30 x 10-6 mL
3. (2 points) What is the log of 3.52 x 108? 8.547 (4 sig figs)
4. (4 points) Perform the following calculations and give the answer to the correct number of significant figures.
	1. 35.287 mL + 207.66 mL = 242.947 rounds to 242.95 mL
	2. $\frac{9.05 g }{2.68832 mL}=$ 3.3664 rounds to 3.37 g/mL
5. (4 points) A large coffee urn holds 4.62 L of coffee. How many mL of coffee will the urn hold?

$$?mL coffee=4.62 L coffee×\frac{1000 mL coffee}{1 L coffee}=4620 mL coffee$$

1. (4 points) An ant walks 5.7 x 10−3 km in a day. How many cm did the ant walk?

$$?cm=5.7×10^{-3}km×\frac{1000 m}{1 km}×\frac{100 cm}{1 m}=570 cm$$

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Quiz 1b

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1. (2 points) Write the name or symbol for the following elements
	1. Mercury Hg
	2. Ne neon
2. (4 points) Write the following measurements in scientific notation with 3 significant figures.
	1. 672799172 g 6.73 x 108 g
	2. 0.007912870 mL 7.91 x 10-3 mL
3. (2 points) What is the log of 6.95 x 106? 6.842 (4 sig figs)
4. (4 points) Perform the following calculations and give the answer to the correct number of significant figures.
	1. 42.416 mL + 157.34 mL = 199.756 rounds to 199.76 mL
	2. $\frac{6.84 g }{1.58771 mL }=$ 4.30809 rounds to 4.31 g/mL
5. (4 points) A large coffee urn holds 6.88 L of coffee. How many mL of coffee will the urn hold?

$$?mL coffee=6.88 L coffee×\frac{1000 mL coffee}{1 L coffee}=6880 mL coffee$$

1. (4 points) An ant walks 4.6 x 10−3 km in a day. How many cm did the ant walk?

$$?cm=5.7×10^{-3}km×\frac{1000 m}{1 km}×\frac{100 cm}{1 m}=570 cm$$

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Quiz 1c

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1. (2 points) Write the name or symbol for the following elements
	1. Potassium K
	2. Ni nickel
2. (4 points) Write the following measurements in scientific notation with 4 significant figures.
	1. 3751867240 g 3.752 x 109 g
	2. 0.00003384492 mL 3.384 x 10-5 mL
3. (2 points) What is the antilog of 5.982? 9.59 x 105 (3 sig figs)
4. (4points) Perform the following calculations and give the answer to the correct number of significant figures.
	1. 0.57116 mL + 5.156 mL = 5.72716 rounds to 5.727 mL
	2. $\frac{2.48 kg }{.029 gal }=$ 85.5172 rounds to 86 g/mL
5. (4 points) A whale drinks an average of 484 L of seawater every day. How many mL of seawater does the whale drink daily?

$$?mL seawater=484 L×\frac{1000 mL}{1 L}=484000 mL or 4.84×10^{5} mL seawater$$

1. (4 points) A boulder has a mass of 4.5 x 108 cg. What is the mass of the boulder in kg?

$$?kg boulder=4.5×10^{8} cg ×\frac{1 g }{100 cg }×\frac{1 kg}{1000 g}=4.5×10^{3} kg boulder$$

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Quiz 1d

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1. (2 points) Write the name or symbol for the following elements
	1. Lead Pb
	2. Si silicon
2. (4 points) Write the following measurements in scientific notation with 4 significant figures.
	1. 3485210 g 3.485 x 106 g
	2. 0.000000572831 mL 5.728 x 10-7 mL
3. (2 points) What is the antilog of 8.154? 1.43 x 108 (3 sig figs)
4. (4points) Perform the following calculations and give the answer to the correct number of significant figures.
	1. 0.86472 mL + 3.547 mL = 4.41172 rounds to 4.412 mL
	2. $\frac{6.57 kg }{.086 gal }=$ 76.3953 rounds to 76 g/mL
5. (4 points) A whale drinks an average of 381 L of seawater every day. How many mL of seawater does the whale drink daily?

$$?mL seawater=381 L×\frac{1000 mL}{1 L}=381000 mL or 3.81×10^{5} mL seawater$$

1. (4 points) A boulder has a mass of 7.1 x 108 cg. What is the mass of the boulder in kg?

$$?kg boulder=7.1×10^{8} cg ×\frac{1 g }{100 cg }×\frac{1 kg}{1000 g}=7.1×10^{3} kg boulder$$