Chemistry 115 Name key

Dr. Cary Willard

Quiz 1a (20 points) August 31, 2010

All work must be shown to receive credit

1. (4 points) Round the following numbers to 3 significant figures and write them in scientific notation.
	1. 69329350

6.93 x 107

* 1. 0.000329631313

3.30 x 10-4

1. (4 points) Perform the following calculation and give the answer to the correct number of significant figures
	1. 36.287 + 164.86 =

201.15

* 1. 39.562 x 0.2770 x 104.3 =

1143 or 1.143 x 103

1. (4 points) What is a hypothesis?

A tentative conclusion.

1. (4 points) If a tree is 42.8 meters tall, how tall is it in millimeters?

$$?mm=42.8 m×\frac{1000 mm}{1 m}=42800 mm or 4.28×10^{5}mm$$

1. (4 points) A recipe calls for 438 g of sugar. How many pounds of sugar are required?

$$?lb sugar=438 g sugar×\frac{1 lb sugar}{454 g sugar}=0.965 lb $$

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1. (4 points) Round the following numbers to 3 significant figures and write them in scientific notation.
	1. 66971339350

6.70 x 1010

* 1. 0.0000324231313

3.24 x 10-5

1. (4 points) Perform the following calculation and give the answer to the correct number of significant figures
	1. 27.524 + 251.73 =

279.25

* 1. 74.832 x 0.5380 x 261.6

10530 or 1.053 x 104

1. (4 points) What is a law?

A consistent and reproducible observation.

1. (4 points) If a tree is 52.3 meters tall, how tall is it in millimeters?

$$?mm=52.3 m×\frac{1000 mm}{1 m}=52300 mm or 5.23×10^{5}mm$$

1. (4 points) A recipe calls for 257 g of sugar. How many pounds of sugar are required?

$$?lb sugar=257 g sugar×\frac{1 lb sugar}{454 g sugar}=0.559 lb $$