Chemistry 115 Name key

Dr. Cary Willard

Quiz 1A (20 points) February 4, 2010

1. (2 points) What is the elemental symbol for the element magnesium?

Mg

1. (2 points) What is the name of the element with the elemental symbol P?

Phosphorus

1. (4 points) Round the following numbers to 3 significant digits and write in correct scientific notation.
	1. 35278815687315975 g 3.53 x 1016 g
	2. 0.000354258281264 mL 3.54 x 10-4 mL
2. (4 points) Perform the following calculations to the correct number of significant figures
	1. $67.2485+51.38=118.63 $
	2. $0.32887×\frac{2.5437}{0.5710}=1.465$
3. (4 points) Bill’s recipe for onion soup calls for 4.0 lb of thinly sliced onions. If an onion has an average mass of 115 g, how many onions does Bill need? Use dimensional analysis and show your work clearly.

$$?onions=4.0 lb onion×\frac{454 g onion}{1 lb onion}×\frac{1 onion}{115 g onion}=16 onions (15.8)$$

1. (4 points) Celeste’s diet restricts her intake of protein to 24 g per day. If a burger is 15.0% by mass protein, how many pounds of burger would be allowed by her diet?

$$?lb burger=24 g protein×\frac{100 g burger}{15.0 g protein }×\frac{1 lb burger}{454 g burger}=0.35 lb burger$$

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Quiz 1B (20 points) February 4, 2010

1. (2 points) What is the elemental symbol for the element cadmium?

Cd

1. (2 points) What is the name of the element with the elemental symbol F?

Fluorine

1. (4 points) Round the following numbers to 3 significant digits and write in correct scientific notation.
	1. 95778815315975 g 9.58 x 1013 g
	2. 0.00000108258281264 mL 1.08 x 10-6 mL
2. (4 points) Perform the following calculations to the correct number of significant figures
	1. $48.5485+75.38=123.93 $
	2. $0.68477×\frac{2.5437}{0.5710}=3.051$
3. (4 points) Bill’s recipe for onion soup calls for 6.0 lb of thinly sliced onions. If an onion has an average mass of 115 g, how many onions does Bill need? Use dimensional analysis and show your work clearly.

$$?onions=6.0 lb onion×\frac{454 g onion}{1 lb onion}×\frac{1 onion}{115 g onion}=24 onions (23.7)$$

1. (4 points) Celeste’s diet restricts her intake of protein to 32 g per day. If a burger is 15.0% by mass protein, how many pounds of burger would be allowed by her diet?

$$?lb burger=32 g protein×\frac{100 g burger}{15.0 g protein }×\frac{1 lb burger}{454 g burger}=0.47 lb burger$$