Chemistry 115 Name Key

Dr. Cary Willard

Quiz 2a (20 points) September 7, 2010

All work must be shown to receive credit

1. (4 points) Write the correct name for each of the following elements. Be sure to spell it correctly!
	1. Li

lithium

* 1. C

carbon

1. (4 points) Write the correct elemental symbol for each of the following elements.
	1. phosphorus

P

* 1. silver

Ag

1. (4 points) Would you consider a sample of coffee to be homogeneous or heterogeneous? Explain why you made that choice.

Homogeneous because all of the parts look the same. The first sip is exactly like all of the other sips.

Heterogeneous because there are generally some small bits of coffee grounds that settle to the bottom of the cup.

1. (4 points) Silver has a density of 10.5 g/mL. What is the mass in pounds (lbs) of a silver statue with a volume of 4.23 gallons? (1 gal = 4 qt)

$$?lb Ag=4.23 gal×\frac{4 qt}{1 gal}×\frac{946 mL}{1 qt}×\frac{10.5 g}{1 mL}×\frac{1 lb}{454 g}$$

$$$$

1. (4 points) The velocity of light is 1.86 x 108 mi/hr. The distance of Mercury from the sun is approximately 5.78 x 107 km. How many minutes will it take for light from the sun to travel to Mercury? (1 mi = 5280 ft, 1 ft = 12 in)

$?min=5.78×10^{7}km×\frac{1000 m}{1 km}×\frac{100 cm}{1 m}×\frac{1 in}{2.54 cm}×\frac{1 ft}{12 in}×\frac{1 mi}{5280 ft}×\frac{1 hr}{1.86×10^{8}mi}×\frac{60 min}{1 hr}=$

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Quiz 2b (20 points) September 7, 2010

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1. (4 points) Write the correct name for each of the following elements. Be sure to spell it correctly!
	1. Mg

magnesium

* 1. O

oxygen

1. (4 points) Write the correct elemental symbol for each of the following elements.
	1. chlorine

Cl

* 1. mercury

Hg

1. (4 points) Would you consider a sample of chocolate ice cream to be homogeneous or heterogeneous? Explain why you made that choice.

Homogeneous because all of the parts look the same. The first bite is exactly like all of the other bites.

Heterogeneous because there are often small bits of ice or chunks of chocolate in the icecream. Also there are bubbles of air in the mixture.

1. (4 points) Silver has a density of 10.5 g/mL. What is the mass in pounds (lbs) of a silver statue with a volume of 6.82 gallons? (1 gal = 4 qt)

$$?lb Ag=6.82 gal×\frac{4 qt}{1 gal}×\frac{946 mL}{1 qt}×\frac{10.5 g}{1 mL}×\frac{1 lb}{454 g}$$

$$$$

1. (4 points) The velocity of light is 1.86 x 108 mi/hr. The distance of Mars from the sun is approximately 2.28 x 108 km. How many minutes will it take for light from the sun to travel to Mercury? (1 mi = 5280 ft, 1 ft = 12 in)

$?min=2.28×10^{8}km×\frac{1000 m}{1 km}×\frac{100 cm}{1 m}×\frac{1 in}{2.54 cm}×\frac{1 ft}{12 in}×\frac{1 mi}{5280 ft}×\frac{1 hr}{1.86×10^{8}mi}×\frac{60 min}{1 hr}=$

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Quiz 2c (20 points) September 9, 2010

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1. (4 points) Write the correct name for each of the following elements. Be sure to spell it correctly!
	1. Ca

calcium

* 1. S

sulfur

1. (4 points) Write the correct elemental symbol for each of the following elements.
	1. aluminum

Al

* 1. gold

Au

1. (4 points) Would you consider a sample of peanut butter to be homogeneous or heterogeneous? Explain why you made that choice.

Homogeneous because all of the parts look the same. The first bite is exactly like all of the other bites.

Heterogeneous because there are often small bits of peanut in the mixture, especially in chunky peanut butter.

1. (4 points) Honey has a density of 1.37 g/mL. How large a container in gallons is required to contain 144 lbs of honey? (1 gal = 4 qt)

$$?gal honey=144 lb×\frac{454 g}{1 lb }×\frac{1 mL}{1.37 g}×\frac{1 qt}{946 mL}×\frac{1 gal}{4 qt}=$$

1. (4 points) The velocity of light is 1.86 x 108 mi/hr. If it takes 2.57 years for the light from a star to reach the earth, what is the distance in kilometers between that star and the earth? (1 mi = 5280 ft, 1 ft = 12 in)

$?km=2.57 yr×\frac{365 day}{1 yr}×\frac{24 hr}{1 day}×\frac{1.86×10^{8}mi}{1 hr}×\frac{5280 ft}{1 mi}×\frac{12 in}{1 ft}×\frac{2.54 cm}{1 in}×\frac{1 m}{100 cm}×\frac{1 km}{1000 m}=$

Chemistry 115 Name Key

Dr. Cary Willard

Quiz 2d (20 points) September 9, 2010

All work must be shown to receive credit

1. (4 points) Write the correct name for each of the following elements. Be sure to spell it correctly!
	1. Ti

titanium

* 1. N

nitrogen

1. (4 points) Write the correct elemental symbol for each of the following elements.
	1. fluorine

F

* 1. lead

Pb

1. (4 points) Would you consider a sample of mustard to be homogeneous or heterogeneous? Explain why you made that choice.

Homogeneous because all of the parts look the same. The first bite is exactly like all of the other bites.

Heterogeneous because there are often small bits of mustard seed or other spices in mustard. This is especially true for country style mustards.

1. (4 points) Honey has a density of 1.37 g/mL. How large a container in gallons is required to contain 215 lbs of honey? (1 gal = 4 qt)

$$?gal honey=215 lb×\frac{454 g}{1 lb }×\frac{1 mL}{1.37 g}×\frac{1 qt}{946 mL}×\frac{1 gal}{4 qt}=$$

1. (4 points) The velocity of light is 1.86 x 108 mi/hr. If it takes 1.94 years for the light from a star to reach the earth, what is the distance in kilometers between that star and the earth? (1 mi = 5280 ft, 1 ft = 12 in)

$$?km=1.94 yr×\frac{365 day}{1 yr}×\frac{24 hr}{1 day}×\frac{1.86×10^{8}mi}{1 hr}×\frac{5280 ft}{1 mi}×\frac{12 in}{1 ft}×\frac{2.54 cm}{1 in}×\frac{1 m}{100 cm}×\frac{1 km}{1000 m}=$$