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

Quiz 4a

Dr. Cary Willard February 26, 2014

Avogadro’s number = 6.022 x 1023/mol

1. (4 points) How many airplanes are in a fleet of 5.28 x 10-22 mol airplanes?

$$?airplanes=5.28×10^{-22}mol airplanes×\frac{6.022×10^{23}airplanes}{1 mol airplanes}=318 airplanes$$

1. (4 points) What is the mass in grams of 0.539 moles of tungsten(W)?

$$?g W=0.539 mol W×\frac{183.85 g W}{1 mol W}=99.1 g W$$

1. (4 points) How many atoms of selenium(Se) are in 8.20 mol of selenium?

$$?atom Se=8.20 mol Se×\frac{6.022×10^{23}airplanes}{1 mol Se}$$

1. (4 points) What is the molar mass of chromium(II) nitrate, Cr(NO3)2?
2. (4 points) How many atoms of oxygen are in 16 formula units of chromium(II) nitrate?