**Mini-quiz #9 Chemistry 1114 section 2 (Fong) 15 Sept 2014 4 pts A**

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Show work for all problems…just don’t spout an answer

1. Compute the molecular weight (MW) for: CaSO4 . (Use your Periodic Tables and round to nearest 1 g/mol)

Ca 40 S 32 O 16

40 +32 + 4\*16=136

\_\_\_136\_\_\_\_\_g/mol CaSO4

2. The MW of CaCO3 is 100 g/mol. How many moles of CaCO3 are in 600 grams of it?

600 g\* 1 mol/100 g = 6 mol

\_\_6\_\_\_\_\_\_ mol CaCO3

3. How many grams are in 6.02\*1022 molecules of CaCO3 ? Assume 1 mole count=6.02\*1023

6.02\*1022 molecules \* 1 mol/6.02\*1023 molecules = 0.1 mol CaCO3

0.1 mol \* 100 g/mol = 10 g

\_\_\_\_\_10 g\_\_\_\_\_\_\_\_\_\_\_\_\_g CaCO3

**Mini-quiz #9 Chemistry 1114 section 2 (Fong) 15 Sept 2014 4 pts B**

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Show work for all problems…just don’t spout an answer

1. Compute the molecular weight (MW) for: CaCl2 . (Use your Periodic Tables and round to nearest 0.1 g/mol)

Ca 40 Cl 35.4

40 + 2\*35.4= 110.9

\_\_110.9\_\_\_\_\_\_g CaCl2/mol

2. The MW of H2SO4 (battery acid) is 98 g/mol How many moles of are in 490 grams of it?

490 g \* 1 mol/98 g =5

\_\_\_\_5\_\_\_\_\_\_\_mol H2SO4

3. How many grams are in 1.228\*1022 molecules of H2SO4? Assume 1 mole count=6.02\*1023

(round to nearest gram)

1.228\*1022 molecules \* 1 mole/6.02\*1023 = 0.0204 mol=> 0.0204 \* 98= 2 g

\_\_\_\_2\_\_\_\_ g H2SO4