**Chem 1013: mini-quiz # 11: basic mole calculations A 6 pts March 2**

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

Show work ! (2 pts/problem)

a) The molecular weight of H2SO4 is 98 g/mol. How many moles are in 490 grams of H2SO4 ?

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

b) The molecular mass of NaCl is 58 g/mol. How many grams are in 0.01724 mol of NaCl ?

\_\_\_\_\_\_\_ g NaCl

c) You have 3.6 g of sucrose whose molecular weight is 360 g/mol. Given that 1 mol count=6\*1023 molecules, how many molecules of sucrose are in the 3.6 g sample ?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ molecules

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Show work ! (2 pts/problem)

a) The molecular weight of H2SO4 is 98 g/mol. How many moles are in 245 grams of H2SO4 ?

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

b) The molecular mass of NaCl is 58 g/mol. How many grams are in 0.03448 mol of NaCl ?

\_\_\_\_\_\_\_ g NaCl

c) You have 7.2 g of sucrose whose molecular weight is 360 g/mol. Given that 1 mol count=6\*1023 molecules, how many molecules of sucrose are in the 7.2 g sample ?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ molecules