**Mini-quiz #12 Chemistry 1114 section 2 (Fong) 24 Sept 2014 4 pts A**

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

Show work for all problems…or no credit !

The compound sucrose has the formula: C12H22O11 and a molecular mass of 342 g/mol.

a) How many moles of O are found in 62.1818 g of sucrose ?

**62.1818 g sucrose/342 g mol-1 =0,1818 mol sucrose**

**Mol O/mol sucrose = 11/1= x/0.1818=> x= mol O=2**

 \_\_\_**2**\_\_\_\_\_ mol O

b) If a sample of sucrose contains 0.421 g C (atomic mass 12 g/mol C), how many grams of

 sucrose are present ?

**0.421 g C/12= mol C=0.03508 mol C**

**Mol sucrose/mol C= x/0.03508=1/12**

**X= 0.002923 mol sucrose => 0.002923 mol\*342 g/mol=1 g**

 \_\_**1**\_\_\_\_\_\_\_ g sucrose

**Mini-quiz #12 Chemistry 1114 section 2 (Fong) 24 Sept 2014 4 pts B**

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

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The compound cubandiol has the formula: C8H14O2 and a molecular mass of 142 g/mol.

a) How many moles of C are found in 53.25 g of cubandiol ?

**53.25 g cubandiol/142 g mol-1 =0.375 mol cubandiol**

**Mol C/mol cubandiol = 8/1=x/0.375**

**X=3 mol C**

 \_\_\_\_**3**\_\_\_\_ mol C

b) If a sample of cubandiol contains 0.296 g H (atomic mass 1 g/mol H), how many grams of

 cubandiol are present ?

**0.296 g H = 0.296 mol H**

**Mol cubandiol/mol H = 1/14=x/0.296=> x= mol cubandiol=0.296/14=0.02114 mol cubandiol**

**Mass cubandiol = 0.02114 ^142=3 g**

 \_\_\_**\_3\_**\_\_\_\_ g cubandiol