**Mini-quiz #11 Chemistry 1114 section 2 (Fong) 17 Sept 2014 3 pts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Show work for all problems…or no credit !

The compound n-pentane, C5H12 is a common material used as a fuel additive to promote ignition.

If a sample of pentane contains 300 grams of C ( atomic mass of 12 g/mol) how many moles of pentane

Present ?

Step 1: mol C =300 g/12 g mol-1 = 25 mol C

Step 2: mol pentane/mol C= 1/5= x/25

 25/5=x=5 mol pentane

\_\_\_\_\_\_\_\_\_\_5\_\_\_\_\_\_\_\_\_\_\_\_ moles pentane

**Mini-quiz #11 Chemistry 1114 section 2 (Fong) 17 Sept 2014 3 pts B**

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

Show work for all problems or no credit

The formula for calcium oxalate is CaC2O4. A chemist determines that a sample of this compound contains 256 grams of O (atomic weight 16 g/mol) . How many moles of calcium oxalate are present ?

Step 1: mol O= 256 g O/16 g mol\_1 =16 mol

Step 2: mol oxalate/mol O= 1/4= x/16

 16/4=x= mol oxalate

 \_\_\_\_4\_\_\_\_\_\_\_\_\_ moles Calcium Oxalate

 **Mini-quiz #11 Chemistry 1114 section 2 (Fong) 17 Sept 2014 3 pts C**

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

 Show work for all problems or no credit

TNT has the formula C9H12O3N3. A sample of this explosive material is found to contain 126 grams of N

(atomic weight 14 g/mol). How many moles of TNT are present ?

 Step 1: mol N= 126 g/14 g mol-1 = 9 mol N

 Step 2: mol TNT/mol N= 1/3= x/9

 9/3=x=3 mol TNT

 \_\_\_3\_\_\_\_\_moles TNT