**Mini-quiz #19 Chemistry 1114 section 2 (Fong) 15 October 2014 3 pts A**

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

**Propane (C3H8) burns according to the stoichiometrically balanced reaction below:**

**C3H8 +5 O2 🡪 3CO2 + 4H2O**

**MW (g/mol) 44 32 44 18**

**How many moles of CO2  can form if we burn 22 grams of C3H8 and 32 g of O2 ? (Show work !)**

**22 g C3H8/44=0.5 mol C3H8 =>mol CO2/mol C3H8 =3/1=x/0.5=> 1.5 mol CO2**

**32 g O2/32=1 mol O2 => mol CO2/mol O2 =3/5 =x/1=> x= 0.6 mol CO2**

**moles CO2 =\_\_\_\_\_0.6\_\_\_\_\_\_\_\_**

**Mini-quiz #19 Chemistry 1114 section 2 (Fong) 13 October 2014 4 pts B**

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

**Propane (C3H8) burns according to the stoichiometrically balanced reaction below:**

**C3H8 +5 O2 🡪 3CO2 + 4H2O**

**MW (g/mol) 44 32 44 18**

**a) How many moles of H2O can form if we burn 88 grams of C3H8 and 80 g O2? (Show work !)**

**88 g C3H8/44=2 mol C3H8 =>mol H2O/mol C3H8 =4/1=x/2=> 8 mol H2O**

**80 g O2/32=2.5 mol O2 => mol H2O/mol O2 =4/5 =x/2.5=> x= 2 mol H2O**

**Moles H2O =\_\_\_\_\_\_\_2\_\_\_\_\_\_**

**Mini-quiz #19 Chemistry 1114 section 2 (Fong) 13 October 2014 4 pts C**

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

**Propane (C3H8) burns according to the stoichiometrically balanced reaction below:**

**C3H8 +5 O2 🡪 3CO2 + 4H2O**

**MW (g/mol) 44 32 44 18**

**How many moles of CO2 can form if we combine 88 grams of C3H8 and 64 grams of O2?**

**88 g C3H8/44=2 mol C3H8 =>mol CO2/mol C3H8 =3/1=x/2=> 6 mol CO2**

**64 g O2/32=2 mol O2 => mol CO2/mol O2 =3/5 =x/2=> x= 6/5 mol CO2=1.2 mol**

**Moles CO2 \_\_\_1.2\_\_\_\_**