**Mole HomeWork 3**

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

**Do these problems and turn your completed work to class**

**Friday 25 September. You can put your work on a separate piece of paper or copy this off and do the work in the spaces provided. SHOW WORK or NO CREDIT!!!!**

**(2 pts each/4 pts total)**

**The molecular mass of crystal meth (C10H13N) is 149 g/mol.**

**Assuming the atomic weights of C=12 g/mol; H=1 g/mol and N=14 g/mol:**

**3.1. How many grams of crystal meth are formed from 0.4362**

**g H?**

**step 1: 0.4362 g H/1 g mol-1 H = 0.4324 mol H**

**step 2: mol meth/mol H= 1/13= x/0.4362 x= 0.4362/13**

**=0.03356 mol meth**

**step 3: 0.03356 mol\*149 g/mol= 5 g meth**

**\_\_\_5\_\_\_\_\_ g meth**

**3.2 How many grams of C are found in 1.6666 mol crystal meth?**

**Step 1: no need…data starts with moles**

**Step 2: Mol C/mol meth=10/1= x/ 1.66666**

**1.66666\*10=16.666=x=mol C**

**Step 3: 16.666 mol C \*12 g C/mol C=200 g \_\_\_200\_\_\_\_ g C**