**In-class exercise #4A: Simple Dozen Calculations**

***1 dozen = 12***

**1 DOZEN EGGS WEIGHS \_\_\_\_ g**

*(obtained from* ***experiment****)*

**a) ~how many dozen eggs in 2000 g ?**

**b) How many grams in 50 dozen eggs ?**

**c) How many eggs (the count) are in**

**2000 grams of eggs ?**

# In-class exercise #4B Chemist’s Dozen Calculations (chapter 3, pp 89-93)

***The mole is the chemist’s “dozen”.***

***1 mole = 1 chemist’s dozen=6.02\*1023***

***(say what ????..why later)***

**1 mole METHANE (CH4**) **WEIGHS 16.0 g**

*(obtained from ADDING* ***experimental*** *element masses printed*

*on Periodic Table)*

***CH4 mass/mole = mass of C + mass of 4 H***

***= 12 + 4\*1***

***= 16***

**a) How many moles of methane in 2000 g ?**

**b) How many grams in 50 moles of methane?**

**c) How many molecules (the count) are in**

**2000 grams of methane ?**