**Mole Worksheet 1: Molar Mass and the Mole Hill**

1) **Calculate the molar mass of each of the following chemicals.**

The **molar mass** is the mass of 1 mole of the substance.

Use the average molar masses of each of the elements from the periodic table.

The numbers are not whole because, just like the eggs, atoms of each element are not all created equal—they have different numbers of isotopes with different percentages.

A) HCl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B) NaBr \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C) CO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D) Mg3(PO4)2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) **How many grams of each substance are represented by the following?**

A) 2.0 moles of MgO

B) 0.50 moles of NaCl

C) 0.10 moles of Cu

D) 1.5 moles of Be(OH)2

3) **Calculate the number of atoms in the following:**

A) 0.25 moles of Mg metal

B) 1.2 moles of Ne gas

C) 4.0 moles of O2 gas

4) **Calculate how many moles there are in the following:**

A) 34.00 g of sodium metal

B) 0.67 g of N2 gas

C) 0.045 g of Fe

5) **Calculate how many moles are represented by the following:**

A) 4.03 x 1018 atoms of Ca

B) 1.28 x 1027 molecules of O2