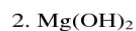


**Worksheet – Mole Conversions****Name:****Show all work, including conversion factors and units. Watch sig digs.****I. Practice Problems**

A. What is the mass of 1 mole (molar mass) of:



B. Convert from grams to moles, or moles to grams

1. How many moles is 12.5 g of magnesium hydroxide?

2. How many moles is 1.46 g of hydrogen gas ( $\text{H}_2$ )?

3. How many grams are in 4.3 moles of ammonium chloride?

C. Convert from moles to molecules, or molecules to moles

1. How many molecules are in 2.0 moles of hydrogen gas ( $\text{H}_2$ )?2. How many moles is  $2.0 \times 10^{25}$  molecules of silver nitrate?D. How many atoms of oxygen are in  $2.4 \times 10^{23}$  molecules of copper(II) sulfate?**II. Application Problems**

A. How many molecules are in 96 g of carbon dioxide?

B. How many oxygen atoms are in 96 g of  $\text{CO}_2$ ?C. How many grams would  $1.0 \times 10^{25}$  molecules of copper(II) sulfate weigh?

D. How much does each individual molecule of copper(II) sulfate weigh?