Name_____ Date_____

Chemistry Review: Moles and Chemical Equations

The following Review Worksheet is to be completed using only the following resources:

- ✓ Periodic Table of elements (inside the back cover of your textbook)
- ✓ Reference Sheet: Names, formulas and charges of some common ions
- ✓ Reference Sheet: Solubility Rules for Ionic Compounds in Water
- ✓ Reference Sheet: "Spiffy Hints" for completing mole calculations

You may work in teams during class time. Any portion of the review that is not completed during class can be done at home. The completed review is due next class.

Part I: Vocabulary – Match the terms with their definitions (2 points each)

____1.	Molar Mass	A.	6.02×10^{23}. The number of particles in a mole of a substance.
____2.	Balanced	B.	An element's atomic mass, expressing in AMU.
____3.	Atomic Mass	C.	The collective mass of all atoms in a compound, in AMU.
____4.	Mass Number	D.	A unit for measuring the masses of atoms and molecules.
____5.	Formula Mass	E.	The whole-number mass of an atom, expressed in grams.
____6.	AMU	F.	The collective mass of all atoms in a compound, expressed in grams.
____7.	Gram Atomic Mass	G.	The mass of a substance expressed in grams per mole.
____8.	Gram Formula Mass	H.	The mass of an element, rounded to the nearest whole number.
____9.	Mole	I.	A chemical equation with identical "element lists" on both sides.
____10.	Avogadro's Number	J.	An amount of any substance with a mass in grams numerically equal to the atomic or molecular mass, and containing 6.02×10^{23} particles.

Part II: Mole Stuff – Complete the following random assortment of mole-related problems and questions. Show all mathematical work for problems requiring calculations.

1. How many particles of any substance are in 1 mole of any substance? (2 pts)

2. How many moles of a substance are present in a mass of the substance equal to its gram formula mass? (2 pts)

3. Which has a greater mass; 1 mole of Aluminum arsenate, or 1 mole of Cobalt oxalate? (4 pts)

4. Aspirin (2-acetyloxybenzoic acid) has the formula $C_9H_8O_4$. Please answer the following items...

   a) What is the molar mass of aspirin? _____ (2 pts)

   b) A typical aspirin dose is 164 milligrams, or 0.164 grams. How many moles of aspirin are in a typical aspirin dose of 164 milligrams?

   _____ (2 pts)