Name KEY Date _____ Class _____

11–1 Review and Reinforcement

Stoichiometry

Complete the following sentences by filling in the appropriate word or phrase from the list below. Each word or phrase may be used once, more than once, or not at all.

reactants	actual	coefficients
molar ratio	particles	subscripts
quantitative	conservation of matter	mass

1. Stoichiometry is the study of the Quantitative relationships that exist in chemical reactions.
2. Stoichiometry can be used to determine how much product will form from a given amount of reactants.
3. The coefficients in a balanced equation indicate(s) the number of particles of each substance taking place in the reaction.
4. It is possible to interpret the coefficients in a balanced chemical equation as either the number of moles or the number of particles involved in the reaction.
5. The coefficients in an equation do not show the actual number of moles, only the relative number involved.
6. You must determine the molar ratio or coefficients in a balanced equation before solving any stoichiometry problem.
7. A balanced equation verifies the law of conservation of matter

If the statement is true, write "true." If it is false, change the underlined word or words to make the statement true. Write your answer on the line provided.

True 8. The term stoichiometry is derived from the Greek words *stoicheion*, meaning element, and *metron*, meaning measure.

FALSE/ONE 9. You can determine the number of moles of any substance produced in a reaction if you know the number of moles of at least two of the reactants.

FALSE/2:1 10. The molar ratio of hydrogen to oxygen in the equation $2H_2 + O_2 \rightarrow 2H_2O$ is 1:2.

True 11. The total mass of the reactants is equal to the total mass of the products in a chemical reaction.

False/Moles 12. Mole-mole problems involve conversions from moles of one substance to mass of another.