

Definitions: Actual Yield: _____

Theoretical Yield: _____

Percent Yield: _____

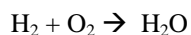
Directions: Determine the theoretical yield, actual yield and percent yield in each of the following cases.

1. Dinitrogen pentoxide combines with water to form nitric acid according to the given equation. During an experiment 2.50-g of N_2O_5 reacts with excess water forming 2.85-g of nitric acid. What is the percent yield in the reaction?



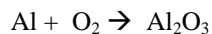
Actual Yield: _____ Theoretical Yield: _____ Percent Yield: _____

2. When hydrogen gas combines with oxygen gas in the following reaction, it is only 92.0% efficient due to leaks in the apparatus. If a chemist wants to prepare 9.58-g of water, what mass of oxygen should be used?



Actual Yield: _____ Theoretical Yield: _____ Percent Yield: _____

3. What mass of aluminum oxide will form when 15.0-g of oxygen combine with excess aluminum in a combination reaction that is 85.0% efficient?



Actual Yield: _____ Theoretical Yield: _____ Percent Yield: _____

4. If 10.0-g of sodium carbonate, Na_2CO_3 , react with excess sulfuric acid, H_2SO_4 , and 1.89L of carbon dioxide, CO_2 , forms at STP, what is the percent yield of the reaction?



Actual Yield: _____ Theoretical Yield: _____ Percent Yield: _____