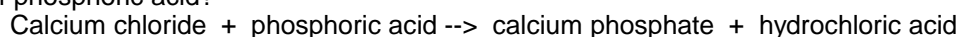


Solution Stoichiometry
CHEMISTRY 110

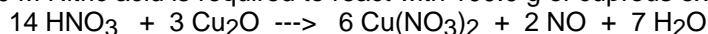
Name _____
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1] How many grams of calcium phosphate can be produced from the reaction of 2.50 L of 0.250 M Calcium chloride with an excess of phosphoric acid?



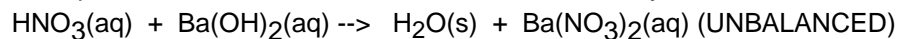
Answer _____

2] How many milliliters of 1.50 M Nitric acid is required to react with 100.0 g of cuprous oxide



Answer _____

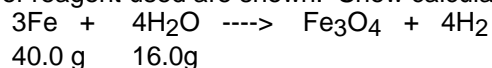
3] 60.5 mL of HNO_3 are required to react with 25.0 mL of a 1.00 M Barium hydroxide solution:



Find the **Molarity** of the nitric acid solution

Answer _____

4] For the following equation determine which reactant is the limiting reactant and which reactant is in excess. The amounts of reagent used are shown. Show calculations to support your choices



The limiting reactant is _____ The excess reactant is _____

5] 35.5 g of silver nitrite is reacted with 35.5 grams of sodium sulfide which produces silver sulfide and sodium nitrite.

a. Write and balance the equation

b.. Calculate the number of grams of silver sulfide produced.

Answer _____

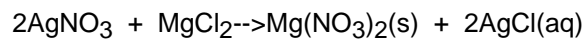
c. How many grams of silver nitrite will remain at the end of the reaction?

Answer _____

d. How many grams of sodium sulfide will remain at the end of the reaction?

Answer _____

6] Calculate the grams of silver chloride produced from 10.00 ml of 10.0M magnesium chloride with 100.0 ml of 2.20 M silver nitrate



Answer _____

7] Aluminum reacts with oxygen to form aluminum oxide: $\text{Al} + \text{O}_2 \rightarrow \text{Al}_2\text{O}_3$ (unbalanced)

If 75.0g of Al and 200.0 g of oxygen are reacted, and 75.0 g of aluminum oxide is produced, what is the percent yield for the reaction?

Answer _____

8] . According to the following reaction:..... $2 \text{Cu}(\text{s}) + \text{O}_2(\text{g}) \rightarrow + 2 \text{CuO}(\text{s})$

a. If the percentage yield is 96.7% how many grams of CuO will be produced from 13.4 g of Cu?

Answer _____

b..How many grams of Cu must you use to produce 5.00×10^{13} mg CuO?

Answer _____