Chapter 11: Gram-to-Gram Conversions Name: _____

Stoichiometry

1) What mass of LiOH is produced when 0.38g of lithium nitride reacts?

$Li_3N + 3H_2O \rightarrow NH_3 + 3LiOH$

0.78g

2) What mass of hydrogen peroxide must decompose according to the equation below to produce 0.77g of water? $2H_2O_2 \rightarrow O_2 + 2H_2O$

1.45g

3) For the reaction $4FeS + 7O_2 \rightarrow 2Fe_2O_3 + 4SO_2$ how many grams of Fe_2O_3 can be formed if we start with 50.3 g of FeS?

45.69g

4) If 2.50 g silver reacts in the following equation, how many grams of HNO_3 will be used up?

$Ag + 2HNO_3 \rightarrow NO_2 + AgNO_3 + H_2O$

2.92g

5) What mass of ammonia must decompose to produce 0.87 g of hydrogen?

$2NH_3 \rightarrow 3H_2 + N_2$

4.89g

6) What mass of sodium chloride is produced when chlorine reacts with 0.29 g of sodium?

Step 1: Write a balanced equation

Step 2: Solve the gram to gram conversion

$2Na + Cl_2 \rightarrow 2NaCl$

0.74g