Percent Yields and Limiting Reagents

Percent Yield = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ x 100

Actual Yield =

Theoretical Yield =

Iodine reacts with hydrogen sulfide to produce hydrogen iodide and sulfur.

When 2.45 grams of iodine was reacted with excess hydrogen sulfide 1.89 grams of hydrogen iodide was produced. What is the percent yield of the reaction

H2S + I2 🡪 2 HI + S

Limiting Reagent =

What if we had 3 molecules of hydrogen and 4 molecules of chlorine? What is the limiting reagent and how many molecules of HCl can we make?

H2 + Cl2 🡪 2 HCl

What if we had 5.00 grams of hydrogen and 14.0 moles of chlorine? What is the limiting reagent and how many moles of HCl can we make?

H2 + Cl2 🡪 2 HCl

If H2 is limiting…..

If Cl2 is limiting…..