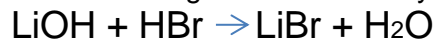# Stoichiometry

1) Lithium hydroxide reacts with hydrobromic acid to produce lithium bromide and water. If you start with 6.2 grams of lithium hydroxide, how many grams of lithium bromide will be produced?

$LiOH + HBr \rightarrow LiBr + H_2O$

22.48 grams

2) Ethylene (C_2H_4) reacts with oxygen gas to produce carbon dioxide and water. If you start with 17.6 grams of ethylene, how many grams of carbon dioxide will be produced?

$C_2H_4 + 3\ O_2 \rightarrow 2\ CO_2 + 2\ H_2O$

55.21 grams

3) Given the equation: $2HCl + Na_2SO_4 \rightarrow 2NaCl + H_2SO_4$
If you start with 62 grams of hydrochloric acid, how many grams of sulfuric acid will be produced?

83.4 grams

4) Given the following equation: $LiOH + KCl \rightarrow LiCl + KOH$
If you start with 1.9 grams of potassium chloride, how many grams of potassium hydroxide will be produced?

 1.43 grams

5) Given the following equation: $C_3H_8 + 5O_2 \rightarrow 3CO_2 + 4H_2O$
How much C3H8 would you need to produce 53.3 grams of carbon dioxide from this reaction?

17.8 grams

6) $Be + 2\ HCl \rightarrow BeCl2 + H2$
How much hydrochloric acid would you need to produce 12.5 grams of beryllium chloride from this reaction?

11.41 grams