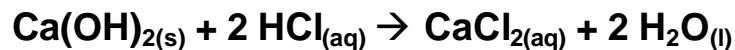


Stoichiometry Using Molarity Worksheet

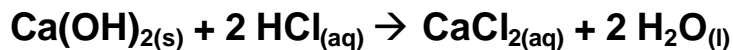
For the questions on this worksheet, consider the following equation:



- 1) What type of chemical reaction is taking place? _____
- 2) How many liters of 0.100 M HCl would be required to react completely with 5.00 grams of calcium hydroxide?
- 3) If I combined 15.0 grams of calcium hydroxide with 75.0 mL of 0.500 M HCl, how many grams of calcium chloride would be formed?
- 4) What is the limiting reagent from the reaction in problem #3? _____
- 5) How many grams of the excess reagent will be left over after the reaction in problem 3 is complete?

Stoichiometry Using Molarity Worksheet

For the questions on this worksheet, consider the following equation:



- 1) What type of chemical reaction is taking place? **acid-base reaction**
- 2) How many liters of 0.100 M HCl would be required to react completely with 5.00 grams of calcium hydroxide?

Using plain ol' stoichiometry, you should find that it will require 0.0135 moles of HCl to react with 5.00 g Ca(OH)₂. Using the equation M = mol/L, this translates to 0.135 L of 0.100 M HCl.

- 3) If I combined 15.0 grams of calcium hydroxide with 75.0 mL of 0.500 M HCl, how many grams of calcium chloride would be formed?
2.08 grams
- 4) What is the limiting reagent from the reaction in problem #3? **HCl**
- 5) How many grams of the excess reagent will be left over after the reaction in problem 3 is complete?
13.6 grams of Ca(OH)₂