Stoichiometry Using Molarity Worksheet

1) __ HCl + __ Al → ___ $AlCl_3$ + __ H_2

How many grams of aluminum are required to react with 35 mL of 2.0 *M* hydrochloric acid, HCl?

2) __ Na + __ H_2SO_4 → ___ Na_2SO_4 + __ H_2

How many grams of sodium can be reacted with 750 mL of a 6.0 *M* solution of sulfuric acid?

3) __ H_3PO_4 + __ Zn → ___ $Zn_3(PO_4)_2$ + __ H_2

How many liters of a 3.0 *M* H_3PO_4 solution are required to react with 4.5 g of zinc?

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

Calcium hydroxide reacts with hydrochloric acid:

4) Write a balanced equation for the above reaction:

5) How many liters of 0.100 M HCl would be required to react completely with 5.00 grams of calcium hydroxide?

6) 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? (Limiting Reactant)

7) 50.0 grams of calcium hydroxide is dissolved in 600 ml of water. Determine the concentration of the solution.