Titrations

Write a balanced reaction for the neutralization of Mg(OH)2 with HCl.

Write a balanced reaction for the neutralization of NaOH by H3PO4.

50.0 ml of a phosphoric acid solution (H3PO4) was titrated with KOH. It took 32.2 ml of 1.45 M KOH to reach the endpoint. What was the concentration of the original phosphoric acid solution?

A sample of solid Ca(OH)2 was neutralized with a solution of HCl. It required 250.0 ml of the HCl solution to neutralize 50.0 mg of Ca(OH)2. What is the concentration of the HCl solution?

Which of the following solutions would be pink when phenolphthalein is added?

A) HCl  
B) H2SO4  
C) KOH  
D) A and B

In a neutralization reaction \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A) two acids react with each other to form water  
B) an acid and base react to form salt and water  
C) two bases react to form a salt and water  
D) an acid reacts with a salt to form a base

Which of the following is **not** a balanced neutralization reaction?

A) KOH + HBr 🡪 KBr + H2O  
B) NH4OH + HCl 🡪 NH4Cl + H2O  
C) H3PO4 + NaOH 🡪 Na3PO4 + H2O  
D) 2 HCl + Mg(OH)2 🡪 2 H2O + MgCl2

It required 50.0 ml of a 2.00 M NaOH solution to completely neutralize 50.0 ml of a H2SO4 solution. What is the concentration of the H2SO4 solution?

A) 4.00 M  
B) 2.00 M  
C) 1.00 M  
D) 0.500 M