

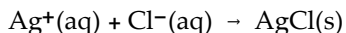
Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Which of the following is **NOT** a strong electrolyte?
A) CaCO_3 B) NaOH C) CaCl_2 D) $\text{NaC}_2\text{H}_3\text{O}_2$ E) K_2SO_4
- 2) When dissolved in water, KOH behaves as
A) a base that forms KO^- and H^+ ions. B) an acid that forms K^+ and OH^- ions.
C) an acid that forms KO^- and H^+ ions. D) a base that forms K^+ and OH^- ions.
- 3) How many of the following compounds are **soluble** in water?
 $\text{Cu}(\text{OH})_2$ NaNO_3 NH_4Cl Li_2S
A) 2 B) 3 C) 4 D) 0 E) 1
- 4) The mixing of which pair of reactants will result in a precipitation reaction?
A) $\text{NH}_4\text{Br}(\text{aq}) + \text{NH}_4\text{I}(\text{aq})$ B) $\text{K}_2\text{SO}_4(\text{aq}) + \text{Cu}(\text{NO}_3)_2(\text{aq})$
C) $\text{Ba}(\text{NO}_3)_2(\text{aq}) + \text{Na}_2\text{CO}_3(\text{aq})$ D) $\text{NaClO}_4(\text{aq}) + (\text{NH}_4)_2\text{S}(\text{aq})$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 5) What precipitate is most likely formed from a solution containing Ba^{+2} , Li^{+1} , OH^{-1} , and CO_3^{-2} .
- 6) Silver ions can be precipitated from aqueous solutions by the addition of aqueous chloride:



Silver chloride is virtually insoluble in water so that the reaction appears to go to completion. How many grams of solid NaCl must be added to 25.0 mL of 0.366 M AgNO_3 solution to completely precipitate the silver?

7) Explain the difference between a strong and weak electrolyte. Give an example of each.

8) Give the **net ionic equation** for the reaction (*if any*) that occurs when aqueous solutions of $\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$ and LiNO_3 are mixed.

9) What is a titration and how does it relate to a neutralization reaction?

Answer Key

Testname: QUIZ 4.5-4.8 (A)

- 1) A
- 2) D
- 3) B
- 4) C
- 5) BaCO_3
- 6) 0.535 g
- 7) A strong electrolyte is either an ionic compound that is soluble in water or a molecular compound that ionizes completely in water. Possible examples are NaCl or HCl. A weak electrolyte is only slightly soluble or does not ionize to any great extent in water. Possible examples are AgCl or $\text{HC}_2\text{H}_3\text{O}_2$.
- 8) No reaction occurs.
- 9)