



Chemistry

Name: _____

Section _____ ACIDS AND METALS WS Date: _____

Directions (1-7): For each statement or question, choose the word or expression that, of those given, best completes the statement or answers the question. Some questions may require the use of the 2011 Edition Reference Tables for Physical Setting/Chemistry.

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| <p>1 Which metal would react spontaneously with hydrochloric acid?</p> <p>(1) gold (3) copper
(2) silver (4) zinc</p> <p>2 Which compound is classified as a salt?</p> <p>(1) Na_3PO_4 (3) CH_3COOH
(2) H_3PO_4 (4) $\text{Ca}(\text{OH})_2$</p> <p>3 Which compound is a salt?</p> <p>(1) CH_3COOH (3) NaOH
(2) $\text{C}_2\text{H}_5\text{OH}$ (4) $\text{NaC}_2\text{H}_3\text{O}_2$</p> <p>4 Which compound reacts with an acid to produce water and a salt?</p> <p>(1) CH_3Cl (3) KCl
(2) CH_3COOH (4) KOH</p> | <p>5 Which products are formed when an acid reacts with a base?</p> <p>(1) carbon dioxide and water
(2) alcohol and carbon dioxide
(3) soap and glycerin
(4) salt and water</p> <p>6 Which of the following 1.0-molar solutions would cause the light bulb of a conductivity tester to glow most brightly?</p> <p>(1) CH_3COOH (3) NaOH
(2) $\text{C}_2\text{H}_5\text{OH}$ (4) $\text{NaC}_2\text{H}_3\text{O}_2$</p> <p>7 Which metal would react most readily with HCl to release hydrogen gas?</p> <p>(1) $\text{Al}_{(s)}$ (3) $\text{Hg}_{(l)}$
(2) $\text{Zn}_{(s)}$ (4) $\text{Ag}_{(s)}$</p> |
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If the following reactions do occur, write the balanced equation and the name of the salt formed. If no reaction occurs, write 'no reaction.'

- 8 calcium and hydrochloric acid
- 9 zinc and dilute nitric acid
- 10 lead and carbonic acid
- 11 aluminum and acetic acid
- 12 copper and phosphoric acid

Write the name of the salt formed and the balanced equation for each of the following reactions.

- 13 nitric acid and sodium hydroxide
- 14 nitric acid and magnesium hydroxide
- 15 sulfuric acid and magnesium hydroxide
- 16 sulfuric acid and potassium hydroxide
- 17 phosphoric acid and lithium hydroxide
- 18 phosphoric acid and calcium hydroxide