

Chemistry Chapter 9 Pretest

True/False

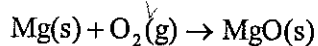
Indicate whether the statement is true or false.

- ___ 1. In a chemical reaction, the products are found on the left side of the arrow.
- ___ 2. A precipitate forms when two aqueous solutions react to form a product that cannot dissolve in water.
- ___ 3. Some single replacement reactions are not possible depending on the activity of the different elements participating in the reaction.
- ___ 4. Word equations use words to indicate reactants and products of chemical reactions.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 5. In this equation, which are the reactant(s)?



- a. A only
 b. C only
 c. A + B
 d. B only
- ___ 6. Which is the name of the kind of solid substance formed in this figure?



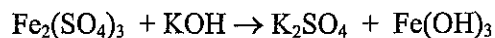
- a. aqueous
 b. precipitate
 c. coordinate complex
 d. synthesis
- ___ 7. Which type of chemical reaction is shown?



- a. double replacement
 b. combustion
 c. synthesis
 d. decomposition
- ___ 8. In a chemical equation, (aq) after one of the substances means that it is which of these?
- a. a solid formed from two ionic substances
 b. released as gas
 c. dissolved in water
 d. produced from nothing

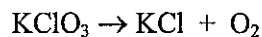
- _____ 9. How many total atoms are in $3\text{Na}_2\text{SO}_4$?
a. 21
b. 10
c. 24
d. 18
- _____ 10. How many total atoms are in $4\text{Ca}_3(\text{PO}_4)_2$?
a. 20
b. 52
c. 36
d. 40
- _____ 11. Which type of reaction can be recognized by the general pattern $\text{A} + \text{BX} \rightarrow \text{AX} + \text{B}$?
a. combustion
b. synthesis
c. single replacement
d. decomposition
- _____ 12. Which type of reaction involves one element and one compound reacting?
a. decomposition
b. double replacement
c. single replacement
d. synthesis
- _____ 13. Which type of reaction takes place in the presence of oxygen and produces carbon dioxide and water?
a. decomposition
b. double replacement
c. synthesis
d. combustion
- _____ 14. Which type of reaction is $\text{Al} + \text{O}_2 \rightarrow \text{Al}_2\text{O}_3$?
a. synthesis
b. decomposition
c. single replacement
d. combustion
- _____ 15. Which types of reactions are essentially opposites of one another?
a. combustion and synthesis
b. single replacement and double replacement
c. synthesis and single replacement
d. synthesis and decomposition
- _____ 16. What are the correct coefficients when this equation is balanced? $\text{K} + \text{Br}_2 \rightarrow \text{KBr}$
a. 1, 1, 1
b. 1, 2, 1
c. 2, 1, 2
d. 2, 1, 1
- _____ 17. Which type of chemical reaction would this be classified as:
 $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
a. synthesis
b. double replacement
c. combustion
d. decomposition
- _____ 18. Identify the type of reaction shown by this chemical equation:
 $\text{Al} + \text{HCl} \rightarrow \text{AlCl}_3 + \text{H}_2$
a. single replacement
b. synthesis
c. double replacement
d. decomposition

____ 19. Which type of chemical reaction is this an example of?



- a. synthesis
b. double replacement
c. single replacement
d. combustion

____ 20. Identify the type of chemical reaction demonstrated by this equation:



- a. decomposition
b. synthesis
c. combustion
d. single replacement

Chapter 9 Chemistry pretest part B

Please do not write on this pretest

Translate each of the following word equations into a balanced chemical equation and then identify the type of reaction each equation represents. Use the symbols or state.

- 21.** Iron metal reacts with solid iodine to form iron III iodide, a solid. What type of reaction is this?
- 22.** Magnesium carbonate, when heated, forms solid magnesium oxide and carbon dioxide gas. What type of reaction of this?
- 23.** Propane gas, C_3H_8 , burns. What type of reaction is this?
- 24.** Zinc nitrate in water solution reacts with potassium metal to produce potassium nitrate in water solution and metallic zinc. What type of reaction is this?
- 25.** Ammonium sulfate in water solution reacts with lead II chlorate in water solution to form ammonium chlorate in water solution and lead II sulfate. What type of reaction is this?

