

Q1W6-Ch.-Test 1-Chemical reactions and equations

True/False

Indicate whether the statement is true or false.

- _____ 1. Word equations use words to indicate reactants and products of chemical reactions.
- _____ 2. A piece of paper burns faster than pieces of shredded paper.
- _____ 3. If the temperature of the reactants is increased, the rate of the reaction will decrease.

Multiple Choice

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

- _____ 4. What type of reaction takes place when fluorine reacts with sodium bromide?
 - a. Single-displacement
 - b. Combination
 - c. Decomposition
 - d. Double-displacement
- _____ 5. What is the probable product of a double-displacement reaction?
 - a. A new compound and the replaced nonmetal
 - b. A single compound
 - c. A new compound and the replaced metal
 - d. Two different compounds
- _____ 6. Which of the following factors does not affect the rate of reaction?
 - a. The temperature at which the reaction is carried out.
 - b. The size of the container used.
 - c. The physical state of the reactants.
 - d. The amount of the reactants.

Matching

Match each statement with the correct item below.

- a. $2\text{Na} + \text{Cl}_2 \rightarrow 2\text{NaCl}$
- b. burning of coal in oxygen
- c. an amount of reactant present in a small enough amount to determine when the reaction will stop
- d. NaCl in $2\text{Na} + \text{Cl}_2 \rightarrow 2\text{NaCl}$
- e. substance that slows down a reaction
- f. energy required to get a reaction started
- g. $\text{Cl}_2 + 2\text{NaBr} \rightarrow \text{Br}_2 + 2\text{NaCl}$
- h. the 2 in 2NaCl
- i. substance that speeds up a reaction without being used up
- j. any chemical change
- k. $2\text{KBr} + \text{Pb}(\text{NO}_3)_2 \rightarrow 2\text{KNO}_3 + \text{PbBr}_2$
- l. substance that appears as a precipitate
- m. rate of $\text{A} + \text{B} \rightarrow \text{AB}$ equals rate of $\text{AB} \rightarrow \text{A} + \text{B}$
- n. either Na or Cl_2 in $2\text{Na} + \text{Cl}_2 \rightarrow 2\text{NaCl}$
- o. $\text{Ca}(\text{OH})_2 \rightarrow \text{CaO} + 2\text{H}_2\text{O}$

- _____ 7. single displacement
- _____ 8. reactant
- _____ 9. catalyst
- _____ 10. product
- _____ 11. dynamic equilibrium
- _____ 12. coefficient
- _____ 13. insoluble
- _____ 14. chemical reaction
- _____ 15. limiting reactant
- _____ 16. synthesis
- _____ 17. decomposition
- _____ 18. combustion
- _____ 19. inhibitor
- _____ 20. double displacement
- _____ 21. activation energy

Match each item with the correct statement below.

- | | |
|----------------------|------------------------|
| a. activation energy | i. equilibrium |
| b. catalyst | j. inhibitor |
| c. chemical reaction | k. insoluble |
| d. coefficient | l. product |
| e. combustion | m. reactant |
| f. concentration | n. single-displacement |
| g. decomposition | o. soluble |
| h. enzymes | p. synthesis |

- ____ 22. A precipitate forms in a chemical reaction when a(n) ____ substance is formed during the reaction.
- ____ 23. The human body contains ____, which are catalysts that change the rates of biochemical reactions.
- ____ 24. In order to balance a chemical equation, it may be necessary to add a(n) ____ before one or more of the symbols or formulas.
- ____ 25. ____ is a type of chemical reaction in which a substance combines rapidly with oxygen to form oxides.
- ____ 26. The carbon dioxide formed when coal burns is a(n) ____ of that reaction because it is formed as a result of the reaction.
- ____ 27. A chemical change is also known as a(n) ____.
- ____ 28. In order for a chemical reaction to take place, the particles involved must collide with a sufficient amount of ____.
- ____ 29. A(n) ____ reaction is one in which two or more substances combine to form a single product.
- ____ 30. A(n) ____ is any substance that produces other substances in a chemical reaction.
- ____ 31. Chemists often add a(n) ____ to a reaction if they want to increase the rate at which the reaction is taking place.
- ____ 32. A term used to describe the amount of substance contained in a certain volume is ____.
- ____ 33. A chemical reaction is in a state of ____ when the rate of products being formed equals the rate of reactants being reformed.
- ____ 34. You can slow down a chemical reaction by adding a(n) ____ to the reaction.
- ____ 35. The replacement of hydrogen from water by sodium is an example of a(n) ____ reaction.

=====