

Review: Chapter 7 + 8
Chemical Reactions: An Introduction

I. Matching

Match the description in Column B with the correct term in Column A. Write the letter in the blank provided. Each term matches with only one description, so be sure to choose the best description for each term.

Column A

- _____ 1. chemical reaction
_____ 2. reactant
_____ 3. product
_____ 4. coefficients

Column B

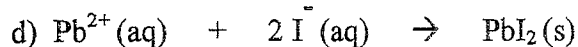
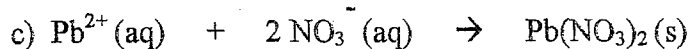
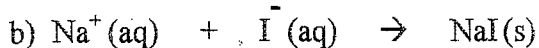
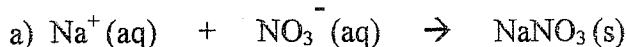
- A. numbers used to balance chemical equations
B. substance that enters into a chemical reaction
C. process in which a new substance is formed
D. written on the right side of the arrow in a chemical equation

II. Multiple Choice

Choose the one best answer and write its letter in the blank.

- _____ 5. Which of the following statements is INCORRECT?
- a) An equation is balanced by changing subscripts as needed.
 - b) Chemical equations are balanced to show that matter is conserved.
 - c) Reactants are substances written to the left of the arrow.
 - d) Coefficients indicate the relative number of molecules of each substance in a chemical reaction.
- _____ 6. Which set of coefficients balance the following equation?
- $$\text{AlCl}_3 + \text{NaOH} \rightarrow \text{Al(OH)}_3 + \text{NaCl}$$
- a) 1, 3, 1, 3
 - b) 3, 1, 3, 1
 - c) 1, 1, 1, 3
 - d) 3, 1, 1, 1
- _____ 7. When the equation $\text{Al} + \text{O}_2 \rightarrow \text{Al}_2\text{O}_3$ is balanced using smallest whole number coefficients, what is the coefficient for Al_2O_3 ?
- a) 1
 - b) 2
 - c) 3
 - d) 4

8. Aqueous solutions of sodium iodide and lead (II) nitrate are mixed. A yellow precipitate forms. The balanced net ionic equation for this reaction would be:



9. The reaction in Question 8 is an example of which type of reaction?
described

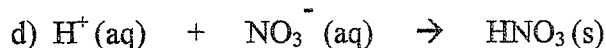
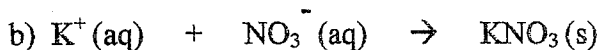
a) decomposition

c) synthesis

b) double replacement

d) single replacement

10. Aqueous solutions of potassium hydroxide and nitric acid are mixed. The net ionic equation for this reaction is:



11. The reaction in Question 10 is an example of which type of reaction?
described

a) single replacement

c) decomposition

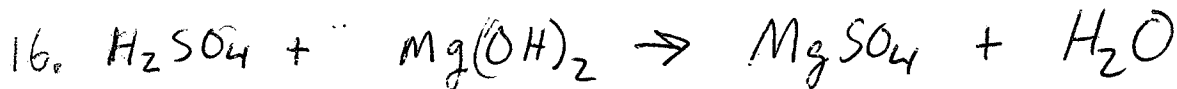
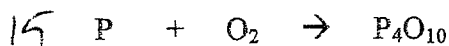
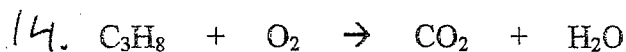
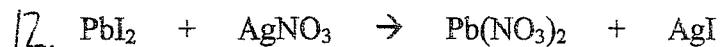
b) double replacement

d) combustion

III. Free Response

Balance the following chemical equations:

And tell what type of reaction each represents



Write balanced equations for the following reactions: And tell what type

