

Writing Complete Equations Practice

For each of the following problems, write complete chemical equations to describe the chemical process taking place. Important note: There are two physical processes on this sheet – remember, you can't write an equation for a physical process!

- 1) When lithium hydroxide pellets are added to a solution of sulfuric acid, a lithium sulfate solution and water are formed.

- 2) When dirty water is boiled for purification purposes, the temperature is brought up to 100⁰ C for 15 minutes.

- 3) If a copper coil is placed into a solution of silver nitrate, solid silver crystals form on the surface of the copper. Additionally, highly soluble copper (I) nitrate is generated.

- 4) When crystalline C₆H₁₂O₆ is burned in oxygen, carbon dioxide gas and water vapor are formed.

- 5) When a chunk of palladium metal is ground into a very fine powder and heated to drive off any atmospheric moisture, the resulting powder is an excellent catalyst for chemical reactions.

Word Equations

Write the word equations below as chemical equations and balance:

1) Zinc and lead (II) nitrate react to form zinc nitrate and lead.

2) Aluminum bromide and chlorine gas react to form aluminum chloride and bromine gas.

3) Sodium phosphate and calcium chloride react to form calcium phosphate and sodium chloride.

4) Potassium metal and chlorine gas combine to form potassium chloride.

5) Aluminum and hydrochloric acid react to form aluminum chloride and hydrogen gas.

6) Calcium hydroxide and phosphoric acid react to form calcium phosphate and water.

7) Copper and sulfuric acid react to form copper (II) sulfate and water and sulfur dioxide.

8) Hydrogen gas and nitrogen monoxide react to form water and nitrogen gas.
