

Practice Writing Equations

Write a balanced equation and identify the type for each description below. Assume water is in the liquid state unless otherwise noted.

1. Sulfur trioxide gas is bubbled through water to make a sulfuric acid solution.
2. Lead (II) nitrate solution and sodium iodide solution combine to produce solid lead (II) iodide and aqueous sodium nitrate.
3. Aqueous calcium fluoride and sulfuric acid combine to produce solid calcium sulfate and hydrofluoric acid.
4. Solid calcium carbonate decomposes when heated to form solid calcium oxide and carbon dioxide gas.
5. Ammonia gas when it is bubbled into water produces ammonium hydroxide solution.
6. Aqueous sodium hydroxide neutralizes carbonic acid forming water and aqueous sodium carbonate.
7. Solid zinc sulfide and oxygen gas react to form solid zinc oxide and solid sulfur.
8. Solid lithium oxide and water form aqueous lithium hydroxide.
9. Aqueous aluminum hydroxide and sulfuric acid neutralize each other to form water and aqueous aluminum sulfate.
10. Solid sulfur (S_8) burns in oxygen gas to produce sulfur dioxide gas.
11. Aqueous barium hydroxide and sulfuric acid produce water and barium sulfate precipitate.
12. Aqueous aluminum sulfate and aqueous calcium hydroxide form aluminum hydroxide and solid calcium sulfate.
13. Solid copper metal and aqueous silver nitrate react to form silver metal and copper (II) nitrate solution.

14. Solid sodium metal and chlorine gas react to form solid sodium chloride.
15. Solid calcium phosphate and sulfuric acid form solid calcium sulfate and phosphoric acid.
16. Phosphoric acid plus aqueous sodium hydroxide form aqueous sodium phosphate and water.
17. Propane (C_3H_8) gas burns in oxygen gas to produce carbon dioxide gas and water vapor.
18. Solid zinc and copper (II) sulfate solution yield aqueous zinc sulfate and copper metal.
19. Sulfuric acid reacts with solid zinc to produce hydrogen gas and aqueous zinc sulfate.
20. Chlorine gas and aqueous sodium bromide yield sodium chloride and bromine liquid.
21. Mercury (I) nitrate solution and sodium chloride solution produce mercury (I) chloride precipitate and aqueous sodium nitrate.
22. Hydrochloric acid and aqueous sodium hydroxide produce aqueous sodium chloride and liquid water.
23. Iron metal and copper (II) sulfate solution produce copper metal and iron (II) sulfate solution.
24. Solid potassium chlorate is heated to produce potassium chloride solid and oxygen gas.
25. Zinc metal is added to hydrochloric acid to produce hydrogen gas and zinc chloride solution.
26. Solid sodium bicarbonate is heated to produce solid sodium carbonate, water vapor and carbon dioxide gas.
27. Nitrogen gas and oxygen gas produce nitrogen oxide gas.
28. Water is electrolyzed to produce hydrogen gas and oxygen gas.