

Word Equations to Balanced Molecular Equations

Write the correct balanced molecular equations for the following word equations and name the reaction types for each.

1. Carbon dioxide gas + water \longrightarrow carbonic acid
2. Phosphorus + oxygen gas \longrightarrow diphosphorus pentoxide
3. Magnesium + hydrochloric acid \longrightarrow magnesium chloride solution + hydrogen gas
4. Iron + copper (II) nitrate \longrightarrow iron (II) nitrate + copper
5. Potassium chlorate \longrightarrow potassium chloride + oxygen gas
6. Potassium hydroxide + sulphuric acid \longrightarrow potassium sulphate solution + water
7. Sodium hydroxide + phosphoric acid \longrightarrow sodium phosphate solution + water
8. Calcium chloride + nitric acid \longrightarrow calcium nitrate + hydrochloric acid
9. Potassium carbonate + barium chloride \longrightarrow potassium chloride + barium carbonate
10. Iron (II) sulphide + hydrochloric acid \longrightarrow hydrogen sulphide + ferrous chloride
11. Aluminium + tin (II) nitrate \longrightarrow aluminium nitrate + tin
12. Sodium sulphide + ferrous sulphate \longrightarrow sodium sulphate + ferrous sulphide
13. Sodium + water \longrightarrow sodium hydroxide + hydrogen gas
14. Cobalt (II) chloride + ammonium phosphate \longrightarrow cobalt (II) phosphate + ammonium chloride
15. Nitrogen gas + hydrogen gas \longrightarrow ammonia
16. Aluminium + iodine gas \longrightarrow aluminium iodide
17. Methane, (CH₄) + oxygen \longrightarrow carbon dioxide + water
18. Propane, (C₃H₈) + oxygen gas \longrightarrow carbon dioxide + water
19. Octane, (C₈H₁₈) + oxygen gas \longrightarrow carbon dioxide + water
20. Lead(II) oxide + ammonia \longrightarrow water + nitrogen gas + lead metal.