

Balancing Chemical Equations

ODD Answers

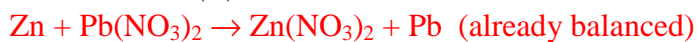
Balance the equations below:

- 1) $\text{N}_2 + \underline{3} \text{H}_2 \rightarrow \underline{2} \text{NH}_3$
- 2) $\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$
- 3) $\underline{2} \text{NaCl} + \text{F}_2 \rightarrow \underline{2} \text{NaF} + \text{Cl}_2$
- 4) $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$
- 5) $\text{Pb(OH)}_2 + \underline{2} \text{HCl} \rightarrow \underline{2} \text{H}_2\text{O} + \text{PbCl}_2$
- 6) $\text{AlBr}_3 + \text{K}_2\text{SO}_4 \rightarrow \text{KBr} + \text{Al}_2(\text{SO}_4)_3$
- 7) $\text{CH}_4 + \underline{2} \text{O}_2 \rightarrow \text{CO}_2 + \underline{2} \text{H}_2\text{O}$
- 8) $\text{C}_3\text{H}_8 + \underline{5} \text{O}_2 \rightarrow \underline{3} \text{CO}_2 + \underline{4} \text{H}_2\text{O}$
- 9) $\underline{2} \text{C}_8\text{H}_{18} + \underline{25} \text{O}_2 \rightarrow \underline{16} \text{CO}_2 + \underline{18} \text{H}_2\text{O}$
- 10) $\text{FeCl}_3 + \text{NaOH} \rightarrow \text{Fe(OH)}_3 + \text{NaCl}$
- 11) $\underline{4} \text{P} + \underline{5} \text{O}_2 \rightarrow \underline{2} \text{P}_2\text{O}_5$
- 12) $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$
- 13) $\underline{2} \text{Ag}_2\text{O} \rightarrow \underline{4} \text{Ag} + \text{O}_2$
- 14) $\text{S}_8 + \text{O}_2 \rightarrow \text{SO}_3$
- 15) $\underline{6} \text{CO}_2 + \underline{6} \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \underline{6} \text{O}_2$
- 16) $\text{K} + \text{MgBr}_2 \rightarrow \text{KBr} + \text{Mg}$
- 17) $\underline{2} \text{HCl} + \text{CaCO}_3 \rightarrow \text{CaCl}_2 + \text{H}_2\text{O} + \text{CO}_2$
- 18) $\text{HNO}_3 + \text{NaHCO}_3 \rightarrow \text{NaNO}_3 + \text{H}_2\text{O} + \text{CO}_2$
- 19) $\underline{2} \text{H}_2\text{O} + \text{O}_2 \rightarrow \underline{2} \text{H}_2\text{O}_2$
- 20) $\text{NaBr} + \text{CaF}_2 \rightarrow \text{NaF} + \text{CaBr}_2$

Useful Information: Phosphoric Acid is H_3PO_4 , Chlorate is ClO_3^- , Zn has a +2 charge, Silver (Ag) has a +1 charge.

Write the word equations below as chemical equations and balance:

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



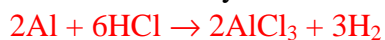
2) Aluminum bromide and chlorine gas react to form aluminum chloride + bromine gas.

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



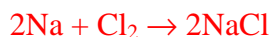
6) Calcium hydroxide and phosphoric acid react to form calcium phosphate and water.

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



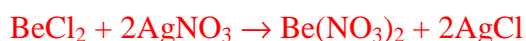
8) Hydrogen gas and nitrogen monoxide react to form water and nitrogen gas.

9) Solid sodium combines with chlorine gas to produce solid sodium chloride.



10) Magnesium and hydrochloric acid react to produce magnesium chloride and hydrogen.

11) Beryllium chloride reacts with silver nitrate to produce beryllium nitrate + silver chloride.



12) Sodium hydroxide reacts with sulfuric acid to produce sodium sulfate and water.

13) Fluorine gas reacts with calcium metal to produce calcium fluoride.



14) Sodium metal reacts with iron (II) chloride to produce iron metal + sodium chloride.

15) Potassium chlorate when heated yields potassium chloride and oxygen gas.



16) Aluminum reacts with Hydrochloric acid to yield aluminum chloride + hydrogen gas.

17) Aluminum bromide and Potassium sulfate react to yield Potassium bromide and Aluminum sulfate.



18) Iron (III) chloride reacts with Sodium hydroxide to yield Iron (III) hydroxide and Sodium chloride.

19) Zinc and lead (II) nitrate react to yield zinc nitrate and lead.



20) Methane and Oxygen react to produce carbon dioxide and water.