

Balancing Chemical Equations

Outcomes:

S2-2-06 Balance chemical equations

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Balance the chemical equations below

1. $\underline{\quad}$ N₂ + $\underline{\quad}$ H₂ \rightarrow $\underline{\quad}$ NH₃
2. $\underline{\quad}$ KClO₃ \rightarrow $\underline{\quad}$ KCl + $\underline{\quad}$ O₂
3. $\underline{\quad}$ NaCl + $\underline{\quad}$ F₂ \rightarrow $\underline{\quad}$ NaF + $\underline{\quad}$ Cl₂
4. $\underline{\quad}$ H₂ + $\underline{\quad}$ O₂ \rightarrow $\underline{\quad}$ H₂O
5. $\underline{\quad}$ Pb(OH)₂ + $\underline{\quad}$ HCl \rightarrow $\underline{\quad}$ H₂O + $\underline{\quad}$ PbCl₂
6. $\underline{\quad}$ AlBr₃ + $\underline{\quad}$ K₂SO₄ \rightarrow $\underline{\quad}$ KBr + $\underline{\quad}$ Al₂(SO₄)₃
7. $\underline{\quad}$ CH₄ + $\underline{\quad}$ O₂ \rightarrow $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
8. $\underline{\quad}$ C₃H₈ + $\underline{\quad}$ O₂ \rightarrow $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
9. $\underline{\quad}$ C₈H₁₈ + $\underline{\quad}$ O₂ \rightarrow $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
10. $\underline{\quad}$ FeCl₃ + $\underline{\quad}$ NaOH \rightarrow $\underline{\quad}$ Fe(OH)₃ + $\underline{\quad}$ NaCl
11. $\underline{\quad}$ P + $\underline{\quad}$ O₂ \rightarrow $\underline{\quad}$ P₂O₅
12. $\underline{\quad}$ Na + $\underline{\quad}$ H₂O \rightarrow $\underline{\quad}$ NaOH + $\underline{\quad}$ H₂
13. $\underline{\quad}$ Ag₂O \rightarrow $\underline{\quad}$ Ag + $\underline{\quad}$ O₂
14. $\underline{\quad}$ S₈ + $\underline{\quad}$ O₂ \rightarrow $\underline{\quad}$ SO₃
15. $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O \rightarrow $\underline{\quad}$ C₆H₁₂O₆ + $\underline{\quad}$ O₂
16. $\underline{\quad}$ K + $\underline{\quad}$ MgBr₂ \rightarrow $\underline{\quad}$ KBr + $\underline{\quad}$ Mg
17. $\underline{\quad}$ HCl + $\underline{\quad}$ CaCO₃ \rightarrow $\underline{\quad}$ CaCl₂ + $\underline{\quad}$ H₂O + $\underline{\quad}$ CO₂
18. $\underline{\quad}$ HNO₃ + $\underline{\quad}$ NaHCO₃ \rightarrow $\underline{\quad}$ NaNO₃ + $\underline{\quad}$ H₂O + $\underline{\quad}$ CO₂
19. $\underline{\quad}$ H₂O + $\underline{\quad}$ O₂ \rightarrow $\underline{\quad}$ H₂O₂
20. $\underline{\quad}$ NaBr + $\underline{\quad}$ CaF₂ \rightarrow $\underline{\quad}$ NaF + $\underline{\quad}$ CaBr₂
21. $\underline{\quad}$ H₂SO₄ + $\underline{\quad}$ NaNO₂ \rightarrow $\underline{\quad}$ HNO₂ + $\underline{\quad}$ Na₂SO₄

Word Equations

Write the word equations below as chemical equations and balance:

1. Aluminum + Oxygen gas \rightarrow Aluminum oxide
2. Carbon + Water \rightarrow Carbon monoxide + Hydrogen gas
3. Tricarbon octahydride + Oxygen gas \rightarrow Carbon dioxide + Water
4. Iron + Water \rightarrow Iron (III) oxide + Hydrogen gas
5. Aluminum bromide and chlorine gas react to form aluminum chloride and bromine gas
6. Aluminum metal and hydrogen chloride combine to form aluminum chloride and hydrogen gas
7. Hydrogen gas and nitrogen monoxide react to form water and nitrogen gas
8. Dicarbon dihydride and Oxygen gas react to form carbon dioxide and water