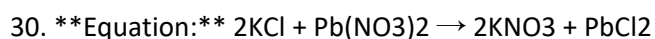
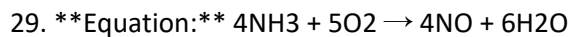
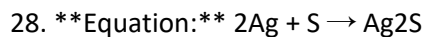
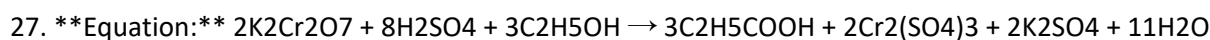
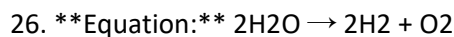




Balancing chemical equations

****Questions:****

1. ****Equation:**** $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$
2. ****Equation:**** $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
3. ****Equation:**** $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
4. ****Equation:**** $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$
5. ****Equation:**** $2\text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{O}_2$
6. ****Equation:**** $2\text{Na} + \text{Cl}_2 \rightarrow 2\text{NaCl}$
7. ****Equation:**** $\text{C}_3\text{H}_8 + 5\text{O}_2 \rightarrow 3\text{CO}_2 + 4\text{H}_2\text{O}$
8. ****Equation:**** $2\text{H}_2 + \text{Cl}_2 \rightarrow 2\text{HCl}$
9. ****Equation:**** $4\text{NH}_3 + 3\text{O}_2 \rightarrow 2\text{N}_2 + 6\text{H}_2\text{O}$
10. ****Equation:**** $2\text{C}_4\text{H}_{10} + 13\text{O}_2 \rightarrow 8\text{CO}_2 + 10\text{H}_2\text{O}$
11. ****Equation:**** $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$
12. ****Equation:**** $\text{C}_6\text{H}_{12}\text{O}_6 \rightarrow 2\text{C}_2\text{H}_5\text{OH} + 2\text{CO}_2$
13. ****Equation:**** $2\text{AgNO}_3 + \text{Cu} \rightarrow 2\text{Ag} + \text{Cu}(\text{NO}_3)_2$
14. ****Equation:**** $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$
15. ****Equation:**** $2\text{H}_2\text{S} + 3\text{O}_2 \rightarrow 2\text{H}_2\text{O} + 2\text{SO}_2$
16. ****Equation:**** $4\text{Al} + 3\text{O}_2 \rightarrow 2\text{Al}_2\text{O}_3$
17. ****Equation:**** $2\text{C}_2\text{H}_4 + 3\text{O}_2 \rightarrow 4\text{CO}_2 + 2\text{H}_2\text{O}$
18. ****Equation:**** $\text{H}_2\text{SO}_4 + 2\text{NaOH} \rightarrow \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O}$
19. ****Equation:**** $4\text{K} + \text{O}_2 \rightarrow 2\text{K}_2\text{O}$
20. ****Equation:**** $2\text{HCl} + \text{Zn} \rightarrow \text{ZnCl}_2 + \text{H}_2$
21. ****Equation:**** $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
22. ****Equation:**** $2\text{H}_2 + 2\text{NO} \rightarrow \text{N}_2 + 2\text{H}_2\text{O}$
23. ****Equation:**** $2\text{K} + 2\text{H}_2\text{O} \rightarrow 2\text{KOH} + \text{H}_2$
24. ****Equation:**** $2\text{FeS}_2 + 11\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3 + 4\text{SO}_2$
25. ****Equation:**** $2\text{C}_4\text{H}_{10} + 13\text{O}_2 \rightarrow 8\text{CO}_2 + 10\text{H}_2\text{O}$



Answers:

1. Methane reacts with oxygen to produce carbon dioxide and water.
2. Hydrogen gas reacts with oxygen gas to form water.
3. Potassium chlorate decomposes into potassium chloride and oxygen gas.
4. Iron reacts with oxygen to form iron(III) oxide.
5. Hydrogen peroxide decomposes into water and oxygen gas.
6. Sodium reacts with chlorine gas to produce sodium chloride.
7. Propane burns in oxygen to form carbon dioxide and water.
8. Hydrogen gas reacts with chlorine gas to form hydrogen chloride.
9. Ammonia reacts with oxygen to produce nitrogen and water.
10. Butane combusts in oxygen to form carbon dioxide and water.
11. Magnesium reacts with oxygen to produce magnesium oxide.
12. Glucose undergoes fermentation to yield ethanol and carbon dioxide.
13. Silver nitrate reacts with copper to produce silver and copper nitrate.
14. Nitrogen and hydrogen combine to form ammonia.
15. Hydrogen sulfide reacts with oxygen to produce water and sulfur dioxide.
16. Aluminum reacts with oxygen to form aluminum oxide.
17. Ethene combusts in oxygen to form carbon dioxide and water.
18. Sulfuric acid reacts with sodium hydroxide to produce sodium sulfate and water.
19. Potassium reacts with oxygen to form potassium oxide.
20. Hydrochloric acid reacts with zinc to produce zinc chloride and hydrogen gas.
21. Calcium carbonate decomposes into calcium oxide and carbon dioxide.



22. Hydrogen reduces nitric oxide to form nitrogen and water.
23. Potassium reacts with water to produce potassium hydroxide and hydrogen gas.
24. Iron pyrite oxidizes in the presence of oxygen to form iron(III) oxide and sulfur dioxide.
25. Butane combusts in oxygen to form carbon dioxide and water.
26. Water can be electrolyzed into hydrogen gas and oxygen gas.
27. Potassium dichromate reacts with sulfuric acid and ethanol to produce acetic acid, chromium(III) sulfate, potassium sulfate, and water.
28. Silver reacts with sulfur to form silver sulfide.
29. Ammonia reacts with oxygen to produce nitrogen monoxide and water.
30. Potassium chloride reacts with lead(II) nitrate to produce potassium nitrate and lead(II) chloride.