



BALANCE THE GIVEN CHEMICAL EQUATIONS

Worksheet - 50

1. $\text{K} + \text{Cl}_2 = \text{KCl}$
2. $\text{KIO}_3 + 5 \text{KI} + \text{H}_2\text{SO}_4 = 3 \text{I}_2 + \text{K}_2\text{SO}_4 + 3 \text{H}_2\text{O}$
3. $\text{P}_4\text{O}_{10} + \text{H}_2\text{O} = \text{H}_3\text{PO}_4$
4. $\text{Al}_4\text{C}_3 + \text{H}_2\text{O} = \text{CH}_4 + 4 \text{Al}(\text{OH})_3$
5. $2 \text{N} + \text{O}_2 = \text{NO}_3$
6. $2 \text{H}_3\text{PO}_4 + \text{Ca}(\text{OH})_2 = \text{H}_2\text{O} + \text{Ca}_3(\text{PO}_4)_2$
7. $\text{KI} + \text{H}_3\text{PO}_4 = \text{HI} + \text{K}_3\text{PO}_4$
8. $3 \text{Fe}_3\text{O}_4 + \text{Al} = \text{Al}_2\text{O}_3 + 9 \text{Fe}$
9. $9 \text{Zn}(\text{NO}_3)_2 + \text{C}_2\text{H}_5\text{NO}_2 = \text{ZnO} + 20 \text{CO}_2 + 14 \text{N}_2 + 25 \text{H}_2\text{O}$
10. $4 \text{KNO}_3 + \text{C} = \text{K}_2\text{CO}_3 + 3 \text{CO}_2 + 2 \text{N}_2$
11. $\text{NH}_3 + 5 \text{O}_2 = \text{NO} + 6 \text{H}_2\text{O}$
12. $\text{N}_2 + \text{H}_2 = \text{NH}_3$
13. $\text{C}_6\text{H}_{12} + \text{O}_2 = \text{CO} + 6 \text{H}_2\text{O}$
14. $\text{C}_7\text{H}_5\text{N}_3\text{O}_6 + 21 \text{O}_2 = \text{CO}_2 + 10 \text{H}_2\text{O} + 6 \text{N}_2$
15. $2 \text{CH}_3(\text{CH}_2)_2\text{CH}_3 + \text{O}_2 = \text{CO}_2 + 10 \text{H}_2\text{O}$
16. $\text{P}_4(\text{s}) + \text{F}_2(\text{g}) = \text{PF}_5(\text{g})$
17. $3 \text{Cl}_2 + \text{H}_2\text{O} = \text{HCl} + \text{HClO}_3$
18. $\text{P}_4\text{O}_{10} + \text{H}_2\text{O} = \text{H}_3\text{PO}_4$
19. $3 \text{Cl}_2 + \text{H}_2\text{O} = \text{HCl} + \text{HClO}_3$
20. $\text{H}_2\text{S} + 8 \text{SO}_2 = \text{S}_8 + 16 \text{H}_2\text{O}$



ANSWERS

1. $2 \text{K} + \text{Cl}_2 = 2 \text{KCl}$
2. $\text{KIO}_3 + 5 \text{KI} + 3 \text{H}_2\text{SO}_4 = 3 \text{I}_2 + 3 \text{K}_2\text{SO}_4 + 3 \text{H}_2\text{O}$
3. $\text{P}_4\text{O}_{10} + 6 \text{H}_2\text{O} = 4 \text{H}_3\text{PO}_4$
4. $\text{Al}_4\text{C}_3 + 12 \text{H}_2\text{O} = 3 \text{CH}_4 + 4 \text{Al}(\text{OH})_3$
5. $2 \text{N} + 3 \text{O}_2 = 2 \text{NO}_3$
6. $2 \text{H}_3\text{PO}_4 + 3 \text{Ca}(\text{OH})_2 = 6 \text{H}_2\text{O} + \text{Ca}_3(\text{PO}_4)_2$
7. $3 \text{KI} + \text{H}_3\text{PO}_4 = 3 \text{HI} + \text{K}_3\text{PO}_4$
8. $3 \text{Fe}_3\text{O}_4 + 8 \text{Al} = 4 \text{Al}_2\text{O}_3 + 9 \text{Fe}$
9. $9 \text{Zn}(\text{NO}_3)_2 + 10 \text{C}_2\text{H}_5\text{NO}_2 = 9 \text{ZnO} + 20 \text{CO}_2 + 14 \text{N}_2 + 25 \text{H}_2\text{O}$
10. $4 \text{KNO}_3 + 5 \text{C} = 2 \text{K}_2\text{CO}_3 + 3 \text{CO}_2 + 2 \text{N}_2$
11. $4 \text{NH}_3 + 5 \text{O}_2 = 4 \text{NO} + 6 \text{H}_2\text{O}$
12. $\text{N}_2 + 3 \text{H}_2 = 2 \text{NH}_3$
13. $\text{C}_6\text{H}_{12} + 6 \text{O}_2 = 6 \text{CO} + 6 \text{H}_2\text{O}$
14. $4 \text{C}_7\text{H}_5\text{N}_3\text{O}_6 + 21 \text{O}_2 = 28 \text{CO}_2 + 10 \text{H}_2\text{O} + 6 \text{N}_2$
15. $2 \text{CH}_3(\text{CH}_2)_2\text{CH}_3 + 13 \text{O}_2 = 8 \text{CO}_2 + 10 \text{H}_2\text{O}$
16. $\text{P}_4(\text{s}) + 10 \text{F}_2(\text{g}) = 4 \text{PF}_5(\text{g})$
17. $3 \text{Cl}_2 + 3 \text{H}_2\text{O} = 5 \text{HCl} + \text{HClO}_3$
18. $\text{P}_4\text{O}_{10} + 6 \text{H}_2\text{O} = 4 \text{H}_3\text{PO}_4$
19. $3 \text{Cl}_2 + 3 \text{H}_2\text{O} = 5 \text{HCl} + \text{HClO}_3$
20. $16 \text{H}_2\text{S} + 8 \text{SO}_2 = 3 \text{S}_8 + 16 \text{H}_2\text{O}$



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