



BALANCE THE GIVEN CHEMICAL EQUATIONS

Worksheet - 47

1. $\text{HCOOH} + \text{O}_2 = 2 \text{CO}_2 + \text{H}_2\text{O}$
2. $3 \text{Pt} + \text{HNO}_3 + 18 \text{HCl} = \text{H}_2\text{PtCl}_6 + 4 \text{NO} + 8 \text{H}_2\text{O}$
3. $\text{N}_2 + \text{H}_2 = \text{NH}_3$
4. $\text{ZnS} + 3 \text{O}_2 = \text{ZnO} + 2 \text{SO}_2$
5. $6 \text{TeCl}_2 + \text{H}_2\text{O} = \text{TeO}_2 + \text{Te} + 2 \text{H}_2\text{TeCl}_6$
6. $\text{NH}_3 + 7 \text{O}_2 = \text{NO}_2 + 6 \text{H}_2\text{O}$
7. $10 \text{C}_5\text{H}_{11}\text{OH} + \text{O}_2 = \text{CO}_2 + 6 \text{H}_2\text{O}$
8. $2 \text{H}_2\text{S} + \text{O}_2 = \text{SO}_2 + 2 \text{H}_2\text{O}$
9. $\text{CH}_3\text{CH}_2\text{OH} + \text{O}_2 = 2 \text{CO}_2 + \text{H}_2\text{O}$
10. $\text{Al}(\text{NO}_3)_3 = \text{Al}_2\text{O}_3 + 12 \text{NO}_2 + 3 \text{O}_2$
11. $\text{C}_6\text{H}_8\text{O}_6(\text{s}) + \text{O}_2(\text{g}) = \text{CO}_2(\text{g}) + 4 \text{H}_2\text{O}(\text{g})$
12. $\text{NH}_4\text{ClO}_4 = \text{N}_2 + \text{Cl}_2 + \text{O}_2 + 4 \text{H}_2\text{O}$
13. $\text{AlI}_3 + 3 \text{HgCl}_2 = \text{AlCl}_3 + 3 \text{HgI}_2$
14. $2 (\text{CH}_3(\text{CH}_2)_4\text{CH}_3) + \text{O}_2 = \text{CO}_2 + 14 \text{H}_2\text{O}$
15. $\text{I}_2\text{O}_3 + \text{CO} = \text{I}_2 + \text{CO}_2$
16. $\text{HCl}(\text{aq}) + \text{K}_2\text{SO}_3(\text{aq}) = \text{KCl} + \text{H}_2\text{O} + \text{SO}_2(\text{g})$
17. $3 \text{Ca}(\text{OH})_2 + \text{H}_3\text{PO}_4 = \text{Ca}_3(\text{PO}_4)_2 + \text{H}_2\text{O}$
18. $\text{C}_{18}\text{H}_{36}\text{O}_2 + \text{O}_2 = \text{CO}_2 + 18 \text{H}_2\text{O}$
19. $\text{P}_{4010} + 1203 \text{H}_2\text{O} = 8020 \text{H}_3\text{PO}_4$
20. $\text{Si}(\text{s}) + \text{HF}(\text{aq}) = \text{SiF}_4(\text{g}) + \text{H}_2(\text{g})$



ANSWERS

1. $2 \text{HCOOH} + \text{O}_2 = 2 \text{CO}_2 + 2 \text{H}_2\text{O}$
2. $3 \text{Pt} + 4 \text{HNO}_3 + 18 \text{HCl} = 3 \text{H}_2\text{PtCl}_6 + 4 \text{NO} + 8 \text{H}_2\text{O}$
3. $\text{N}_2 + 3 \text{H}_2 = 2 \text{NH}_3$
4. $2 \text{ZnS} + 3 \text{O}_2 = 2 \text{ZnO} + 2 \text{SO}_2$
5. $6 \text{TeCl}_2 + 2 \text{H}_2\text{O} = \text{TeO}_2 + 3 \text{Te} + 2 \text{H}_2\text{TeCl}_6$
6. $4 \text{NH}_3 + 7 \text{O}_2 = 4 \text{NO}_2 + 6 \text{H}_2\text{O}$
7. $10 \text{C}_5\text{H}_{11}\text{OH} + 45 \text{O}_2 = 50 \text{CO}_2 + 6 \text{H}_2\text{O}$
8. $2 \text{H}_2\text{S} + 3 \text{O}_2 = 2 \text{SO}_2 + 2 \text{H}_2\text{O}$
9. $\text{CH}_3\text{CH}_2\text{OH} + 3 \text{O}_2 = 2 \text{CO}_2 + 3 \text{H}_2\text{O}$
10. $4 \text{Al}(\text{NO}_3)_3 = 2 \text{Al}_2\text{O}_3 + 12 \text{NO}_2 + 3 \text{O}_2$
11. $\text{C}_6\text{H}_8\text{O}_6(\text{s}) + 5 \text{O}_2(\text{g}) = 6 \text{CO}_2(\text{g}) + 4 \text{H}_2\text{O}(\text{g})$
12. $2 \text{NH}_4\text{ClO}_4 = \text{N}_2 + \text{Cl}_2 + 2 \text{O}_2 + 4 \text{H}_2\text{O}$
13. $2 \text{AlI}_3 + 3 \text{HgCl}_2 = 2 \text{AlCl}_3 + 3 \text{HgI}_2$
14. $2 (\text{CH}_3(\text{CH}_2)_4\text{CH}_3) + 19 \text{O}_2 = 12 \text{CO}_2 + 14 \text{H}_2\text{O}$
15. $\text{I}_2\text{O}_3 + 3 \text{CO} = \text{I}_2 + 3 \text{CO}_2$
16. $2 \text{HCl}(\text{aq}) + \text{K}_2\text{SO}_3(\text{aq}) = 2 \text{KCl} + \text{H}_2\text{O} + \text{SO}_2(\text{g})$
17. $3 \text{Ca}(\text{OH})_2 + 2 \text{H}_3\text{PO}_4 = \text{Ca}_3(\text{PO}_4)_2 + 6 \text{H}_2\text{O}$
18. $\text{C}_{18}\text{H}_{36}\text{O}_2 + 26 \text{O}_2 = 18 \text{CO}_2 + 18 \text{H}_2\text{O}$
19. $8 \text{P}_{4010} + 1203 \text{H}_{20} = 8020 \text{H}_3\text{P}_{04}$
20. $\text{Si}(\text{s}) + 4 \text{HF}(\text{aq}) = \text{SiF}_4(\text{g}) + 2 \text{H}_2(\text{g})$



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