

Chemical Equations Worksheets – Answer Keys

1. 1:1:2
 2. 1:2:1:2:2
 3. 1:2:1:2
 4. $\text{MgCl}_2 + 2\text{AgNO}_3 \rightarrow \text{Mg}(\text{NO}_3)_2 + 2\text{AgCl}$
 5. $2\text{Al} + 3\text{CuCl}_2 \rightarrow 2\text{AlCl}_3 + 3\text{Cu}$
 6. $\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$
 7. 2:1:2:1 double displacement
 8. 2:2:1 decomposition
 9. 1:1:1:1 single displacement
 10. 4:1:2 synthesis or combustion
 11. 1:1:2 dissociation
 12. 1:1:1 synthesis
 13. single displacement: $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$ or $2\text{Fe} + 3\text{CuSO}_4 \rightarrow \text{Fe}_2(\text{SO}_4)_3 + 3\text{Cu}$
 14. double displacement: $\text{HgSO}_4 + 2\text{NH}_4\text{NO}_3 \rightarrow (\text{NH}_4)_2\text{SO}_4 + \text{Hg}(\text{NO}_3)_2$
 15. double displacement: $3\text{NaOH} + \text{H}_3\text{PO}_4 \rightarrow \text{Na}_3\text{PO}_4 + 3\text{H}_2\text{O}$
 16. NR
 17. synthesis / combustion: $2\text{Zn} + \text{O}_2 \rightarrow 2\text{ZnO}$
 18. single displacement: $\text{Br}_2 + 2\text{NaI} \rightarrow 2\text{NaBr} + \text{I}_2$
 19. NR
 20. synthesis: $\text{Fe} + \text{S} \rightarrow \text{FeS}$ or $2\text{Fe} + 3\text{S} \rightarrow \text{Fe}_2\text{S}_3$
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1. decomposition: $\text{MgCO}_3 \rightarrow \text{MgO} + \text{CO}_2$
 2. synthesis / combustion: $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
 3. single displacement: $2\text{AgNO}_3 + \text{Cu} \rightarrow \text{Cu}(\text{NO}_3)_2 + 2\text{Ag}$
 4. combustion: $\text{C}_3\text{H}_8 + 5\text{O}_2 \rightarrow 3\text{CO}_2 + 4\text{H}_2\text{O}$
 5. double displacement: $3\text{H}_2\text{SO}_4 + 2\text{Al}(\text{OH})_3 \rightarrow \text{Al}_2(\text{SO}_4)_3 + 6\text{H}_2\text{O}$
 6. dissociation: $\text{FeCl}_3 \rightarrow \text{Fe}^{+3} + 3\text{Cl}^-$
 7. synthesis: $\text{H}_2\text{O} + \text{N}_2\text{O}_3 \rightarrow 2\text{HNO}_2$
 8. single displacement: $\text{F}_2 + 2\text{NH}_4\text{Br} \rightarrow 2\text{NH}_4\text{F} + \text{Br}_2$
 9. decomposition: $2\text{KNO}_3 \rightarrow 2\text{KNO}_2 + \text{O}_2$
 10. decomposition: $2\text{NaCl} \rightarrow 2\text{Na} + \text{Cl}_2$
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1. double displacement: $\text{K}_2\text{SO}_4 + \text{CaCl}_2 \rightarrow \text{CaSO}_4 + 2\text{KCl}$
 2. decomposition: $2\text{BaO} \rightarrow 2\text{Ba} + \text{O}_2$
 3. synthesis / combustion: $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
 4. single displacement: $4\text{Na} + \text{Sn}(\text{C}_2\text{H}_3\text{O}_2)_4 \rightarrow \text{Sn} + 4\text{NaC}_2\text{H}_3\text{O}_2$
 5. NR
 6. double displacement: $\text{NH}_4\text{OH} + \text{HCl} \rightarrow \text{NH}_4\text{Cl} + \text{H}_2\text{O}$
 7. single displacement: $\text{Cl}_2 + 2\text{NaI} \rightarrow 2\text{NaCl} + \text{I}_2$
 8. double displacement: $\text{Rb}_2\text{S} + \text{Fe}(\text{NO}_3)_2 \rightarrow \text{FeS} + 2\text{RbNO}_3$
 9. synthesis: $3\text{Ni} + 2\text{P} \rightarrow \text{Ni}_3\text{P}_2$
 10. dissociation: $\text{BaO} \rightarrow \text{Ba}^{+2} + \text{O}^{-2}$