

WORKSHEET: BALANCING EQUATIONS

Balance the following equations by placing small whole-number coefficients in the appropriate places.

Synthesis

1. $\underline{\quad}$ Ba + $\underline{\quad}$ O₂ → $\underline{\quad}$ BaO
2. $\underline{\quad}$ C + $\underline{\quad}$ S → $\underline{\quad}$ CS₂
3. $\underline{\quad}$ Li + $\underline{\quad}$ O₂ → $\underline{\quad}$ Li₂O
4. $\underline{\quad}$ Mg + $\underline{\quad}$ N₂ → $\underline{\quad}$ Mg₃N₂
5. $\underline{\quad}$ FeCl₂ + $\underline{\quad}$ Cl₂ → $\underline{\quad}$ FeCl₃

Decomposition or Analysis

6. $\underline{\quad}$ KClO₃ → $\underline{\quad}$ KCl + $\underline{\quad}$ O₂
7. $\underline{\quad}$ Ag₂O → $\underline{\quad}$ Ag + $\underline{\quad}$ O₂
8. $\underline{\quad}$ CuCO₃ → $\underline{\quad}$ CuO + $\underline{\quad}$ CO₂
9. $\underline{\quad}$ AuBr₃ → $\underline{\quad}$ Au + $\underline{\quad}$ Br₂
10. $\underline{\quad}$ UF₄ → $\underline{\quad}$ U + $\underline{\quad}$ F₂

Single Replacement

11. $\underline{\quad}$ Zn + $\underline{\quad}$ HCl → $\underline{\quad}$ ZnCl₂ + $\underline{\quad}$ H₂
12. $\underline{\quad}$ Zn + $\underline{\quad}$ CuSO₄ → $\underline{\quad}$ ZnSO₄ + $\underline{\quad}$ Cu
13. $\underline{\quad}$ Cu + $\underline{\quad}$ AgNO₃ → $\underline{\quad}$ Cu(NO₃)₂ + $\underline{\quad}$ Ag
14. $\underline{\quad}$ K + $\underline{\quad}$ H₂O → $\underline{\quad}$ KOH + $\underline{\quad}$ H₂
15. $\underline{\quad}$ Al + $\underline{\quad}$ CuCl₂ → $\underline{\quad}$ AlCl₃ + $\underline{\quad}$ Cu

Double Replacement

16. $\underline{\quad}$ BaCl₂ + $\underline{\quad}$ Na₂SO₄ → $\underline{\quad}$ NaCl + $\underline{\quad}$ BaSO₄
17. $\underline{\quad}$ ZnCl₂ + $\underline{\quad}$ (NH₄)₂S → $\underline{\quad}$ NH₄Cl + $\underline{\quad}$ ZnS
18. $\underline{\quad}$ NaOH + $\underline{\quad}$ HCl → $\underline{\quad}$ NaCl + $\underline{\quad}$ H₂O
19. $\underline{\quad}$ FeS + $\underline{\quad}$ HCl → $\underline{\quad}$ FeCl₂ + $\underline{\quad}$ H₂S
20. $\underline{\quad}$ AlCl₃ + $\underline{\quad}$ NaOH → $\underline{\quad}$ Al(OH)₃ + $\underline{\quad}$ NaCl

Combustion

21. $\underline{\quad}$ CH₄ + $\underline{\quad}$ O₂ → $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
22. $\underline{\quad}$ C₂H₆ + $\underline{\quad}$ O₂ → $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
23. $\underline{\quad}$ C₃H₆ + $\underline{\quad}$ O₂ → $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
24. $\underline{\quad}$ C₄H₈ + $\underline{\quad}$ O₂ → $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
25. $\underline{\quad}$ C₅H₁₀ + $\underline{\quad}$ O₂ → $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O

Identify and write a balanced equation for each of the following word equations.

