

Balancing Equations Worksheet

- 1) $\underline{\hspace{1cm}}$ Na₃PO₄ + $\underline{\hspace{1cm}}$ KOH \rightarrow $\underline{\hspace{1cm}}$ NaOH + $\underline{\hspace{1cm}}$ K₃PO₄
- 2) $\underline{\hspace{1cm}}$ MgF₂ + $\underline{\hspace{1cm}}$ Li₂CO₃ \rightarrow $\underline{\hspace{1cm}}$ MgCO₃ + $\underline{\hspace{1cm}}$ LiF
- 3) $\underline{\hspace{1cm}}$ P₄ + $\underline{\hspace{1cm}}$ O₂ \rightarrow $\underline{\hspace{1cm}}$ P₂O₃
- 4) $\underline{\hspace{1cm}}$ RbNO₃ + $\underline{\hspace{1cm}}$ BeF₂ \rightarrow $\underline{\hspace{1cm}}$ Be(NO₃)₂ + $\underline{\hspace{1cm}}$ RbF
- 5) $\underline{\hspace{1cm}}$ AgNO₃ + $\underline{\hspace{1cm}}$ Cu \rightarrow $\underline{\hspace{1cm}}$ Cu(NO₃)₂ + $\underline{\hspace{1cm}}$ Ag
- 6) $\underline{\hspace{1cm}}$ CF₄ + $\underline{\hspace{1cm}}$ Br₂ \rightarrow $\underline{\hspace{1cm}}$ CBr₄ + $\underline{\hspace{1cm}}$ F₂
- 7) $\underline{\hspace{1cm}}$ HCN + $\underline{\hspace{1cm}}$ CuSO₄ \rightarrow $\underline{\hspace{1cm}}$ H₂SO₄ + $\underline{\hspace{1cm}}$ Cu(CN)₂
- 8) $\underline{\hspace{1cm}}$ GaF₃ + $\underline{\hspace{1cm}}$ Cs \rightarrow $\underline{\hspace{1cm}}$ CsF + $\underline{\hspace{1cm}}$ Ga
- 9) $\underline{\hspace{1cm}}$ BaS + $\underline{\hspace{1cm}}$ PtF₂ \rightarrow $\underline{\hspace{1cm}}$ BaF₂ + $\underline{\hspace{1cm}}$ PtS
- 10) $\underline{\hspace{1cm}}$ N₂ + $\underline{\hspace{1cm}}$ H₂ \rightarrow $\underline{\hspace{1cm}}$ NH₃
- 11) $\underline{\hspace{1cm}}$ NaF + $\underline{\hspace{1cm}}$ Br₂ \rightarrow $\underline{\hspace{1cm}}$ NaBr + $\underline{\hspace{1cm}}$ F₂
- 12) $\underline{\hspace{1cm}}$ Pb(OH)₂ + $\underline{\hspace{1cm}}$ HCl \rightarrow $\underline{\hspace{1cm}}$ H₂O + $\underline{\hspace{1cm}}$ PbCl₂
- 13) $\underline{\hspace{1cm}}$ AlBr₃ + $\underline{\hspace{1cm}}$ K₂SO₄ \rightarrow $\underline{\hspace{1cm}}$ KBr + $\underline{\hspace{1cm}}$ Al₂(SO₄)₃
- 14) $\underline{\hspace{1cm}}$ CH₄ + $\underline{\hspace{1cm}}$ O₂ \rightarrow $\underline{\hspace{1cm}}$ CO₂ + $\underline{\hspace{1cm}}$ H₂O
- 15) $\underline{\hspace{1cm}}$ Na₃PO₄ + $\underline{\hspace{1cm}}$ CaCl₂ \rightarrow $\underline{\hspace{1cm}}$ NaCl + $\underline{\hspace{1cm}}$ Ca₃(PO₄)₂
- 16) $\underline{\hspace{1cm}}$ K + $\underline{\hspace{1cm}}$ Cl₂ \rightarrow $\underline{\hspace{1cm}}$ KCl
- 17) $\underline{\hspace{1cm}}$ Al + $\underline{\hspace{1cm}}$ HCl \rightarrow $\underline{\hspace{1cm}}$ H₂ + $\underline{\hspace{1cm}}$ AlCl₃
- 18) $\underline{\hspace{1cm}}$ N₂ + $\underline{\hspace{1cm}}$ F₂ \rightarrow $\underline{\hspace{1cm}}$ NF₃
- 19) $\underline{\hspace{1cm}}$ SO₂ + $\underline{\hspace{1cm}}$ Li₂Se \rightarrow $\underline{\hspace{1cm}}$ SSe₂ + $\underline{\hspace{1cm}}$ Li₂O
- 20) $\underline{\hspace{1cm}}$ NH₃ + $\underline{\hspace{1cm}}$ H₂SO₄ \rightarrow $\underline{\hspace{1cm}}$ (NH₄)₂SO₄

Balancing Equations Worksheet – Answers

Note to students: It is acceptable to leave spaces blank when balancing equations – blank spaces are interpreted as containing the number “1”.

- 1) $1 \text{ Na}_3\text{PO}_4 + 3 \text{ KOH} \rightarrow 3 \text{ NaOH} + 1 \text{ K}_3\text{PO}_4$
- 2) $1 \text{ MgF}_2 + 1 \text{ Li}_2\text{CO}_3 \rightarrow 1 \text{ MgCO}_3 + 2 \text{ LiF}$
- 3) $1 \text{ P}_4 + 3 \text{ O}_2 \rightarrow 2 \text{ P}_2\text{O}_3$
- 4) $2 \text{ RbNO}_3 + 1 \text{ BeF}_2 \rightarrow 1 \text{ Be}(\text{NO}_3)_2 + 2 \text{ RbF}$
- 5) $2 \text{ AgNO}_3 + 1 \text{ Cu} \rightarrow 1 \text{ Cu}(\text{NO}_3)_2 + 2 \text{ Ag}$
- 6) $1 \text{ CF}_4 + 2 \text{ Br}_2 \rightarrow 1 \text{ CBr}_4 + 2 \text{ F}_2$
- 7) $2 \text{ HCN} + 1 \text{ CuSO}_4 \rightarrow 1 \text{ H}_2\text{SO}_4 + 1 \text{ Cu}(\text{CN})_2$
- 8) $1 \text{ GaF}_3 + 3 \text{ Cs} \rightarrow 3 \text{ CsF} + 1 \text{ Ga}$
- 9) $1 \text{ BaS} + 1 \text{ PtF}_2 \rightarrow 1 \text{ BaF}_2 + 1 \text{ PtS}$
- 10) $1 \text{ N}_2 + 3 \text{ H}_2 \rightarrow 2 \text{ NH}_3$
- 11) $2 \text{ NaF} + 1 \text{ Br}_2 \rightarrow 2 \text{ NaBr} + 1 \text{ F}_2$
- 12) $1 \text{ Pb(OH)}_2 + 2 \text{ HCl} \rightarrow 2 \text{ H}_2\text{O} + 1 \text{ PbCl}_2$
- 13) $2 \text{ AlBr}_3 + 3 \text{ K}_2\text{SO}_4 \rightarrow 6 \text{ KBr} + 1 \text{ Al}_2(\text{SO}_4)_3$
- 14) $1 \text{ CH}_4 + 2 \text{ O}_2 \rightarrow 1 \text{ CO}_2 + 2 \text{ H}_2\text{O}$
- 15) $2 \text{ Na}_3\text{PO}_4 + 3 \text{ CaCl}_2 \rightarrow 6 \text{ NaCl} + 1 \text{ Ca}_3(\text{PO}_4)_2$
- 16) $2 \text{ K} + 1 \text{ Cl}_2 \rightarrow 2 \text{ KCl}$
- 17) $2 \text{ Al} + 6 \text{ HCl} \rightarrow 3 \text{ H}_2 + 2 \text{ AlCl}_3$
- 18) $1 \text{ N}_2 + 3 \text{ F}_2 \rightarrow 2 \text{ NF}_3$
- 19) $1 \text{ SO}_2 + 2 \text{ Li}_2\text{Se} \rightarrow 1 \text{ SSe}_2 + 2 \text{ Li}_2\text{O}$
- 20) $2 \text{ NH}_3 + 1 \text{ H}_2\text{SO}_4 \rightarrow 1 \text{ (NH}_4\text{)}_2\text{SO}_4$