

CHAPTER 7	Balancing Chemical Reactions Answer Key	BLM 7.0.3A
ANSWER KEY		

- (a) $1\text{C}_6\text{H}_{10}\text{O}_5(\text{s}) + 6\text{O}_2(\text{g}) \rightarrow 6\text{CO}_2(\text{g}) + 5\text{H}_2\text{O}(\text{g})$
- (b) $1\text{AuCl}_3(\text{aq}) + 3\text{Ag}(\text{s}) \rightarrow 3\text{AgCl}(\text{s}) + 1\text{Au}(\text{s})$
- (c) $1\text{Sc}_2\text{O}_3(\text{s}) + 3\text{H}_2\text{O}(\text{l}) \rightarrow 2\text{Sc}(\text{OH})_3(\text{s})$
- (d) $2\text{Hg}(\text{l}) + 1\text{O}_2(\text{g}) \rightarrow 2\text{HgO}(\text{s})$
- (e) $1\text{CH}_3\text{COOH}(\text{l}) + 2\text{O}_2(\text{g}) \rightarrow 2\text{CO}_2(\text{g}) + 2\text{H}_2\text{O}(\text{g})$
- (f) $2\text{C}(\text{s}) + 4\text{H}_2(\text{g}) + 1\text{O}_2(\text{g}) \rightarrow 2\text{CH}_3\text{OH}(\text{l})$
- (g) $1\text{C}_3\text{H}_8(\text{g}) + 5\text{O}_2(\text{g}) \rightarrow 3\text{CO}_2(\text{g}) + 4\text{H}_2\text{O}(\text{g})$
- (h) $1\text{Br}_2(\text{l}) + 2\text{NaI}(\text{aq}) \rightarrow 2\text{NaBr}(\text{aq}) + 1\text{I}_2(\text{s})$
- (i) $2\text{Ca}(\text{s}) + 2\text{C}(\text{s}) + 3\text{O}_2(\text{g}) \rightarrow 2\text{CaCO}_3(\text{s})$
- (j) $8\text{H}_2\text{SO}_4(\text{l}) \rightarrow 8\text{H}_2(\text{g}) + 1\text{S}_8(\text{s}) + 16\text{O}_2(\text{g})$
- (k) $6\text{S}_2\text{Cl}_2(\text{l}) + 16\text{NH}_3(\text{g}) \rightarrow \text{S}_4\text{N}_4(\text{s}) + 1\text{S}_8(\text{s}) + 12\text{NH}_4\text{Cl}(\text{s})$
- (l) $2\text{C}_6\text{H}_6(\text{l}) + 15\text{O}_2(\text{g}) \rightarrow 12\text{CO}_2(\text{g}) + 6\text{H}_2\text{O}(\text{g})$
- (m) $2\text{Ag}(\text{s}) + 1\text{O}_2(\text{g}) + 1\text{H}_2(\text{g}) \rightarrow 2\text{AgOH}(\text{s})$
- (n) $2\text{HClO}_4(\text{l}) \rightarrow 1\text{H}_2(\text{g}) + 1\text{Cl}_2(\text{g}) + 4\text{O}_2(\text{g})$
- (o) $1\text{CrCl}_2(\text{aq}) + 1\text{Mg}(\text{s}) \rightarrow 1\text{MgCl}_2(\text{aq}) + 1\text{Cr}(\text{s})$
- (p) $1\text{Ba}(\text{NO}_3)_2(\text{aq}) + 2\text{NaCl}(\text{aq}) \rightarrow 1\text{BaCl}_2(\text{s}) + 2\text{NaNO}_3(\text{aq})$
- (q) $2\text{C}_8\text{H}_{18}(\text{l}) + 25\text{O}_2(\text{g}) \rightarrow 16\text{CO}_2(\text{g}) + 18\text{H}_2\text{O}(\text{g})$
- (r) $1\text{I}_2(\text{s}) + 1\text{Na}_2\text{Se}(\text{aq}) \rightarrow 2\text{NaI}(\text{aq}) + 1\text{Se}(\text{s})$
- (s) $8\text{Cu}(\text{s}) + 1\text{S}_8(\text{s}) + 12\text{O}_2(\text{g}) \rightarrow 8\text{CuSO}_3(\text{s})$
- (t) $2\text{Au}(\text{s}) + 3\text{Cl}_2(\text{g}) \rightarrow 2\text{AuCl}_3(\text{s})$
- (u) $8\text{CuSO}_4(\text{s}) \rightarrow 8\text{Cu}(\text{s}) + 1\text{S}_8(\text{s}) + 16\text{O}_2(\text{g})$
- (v) $2\text{C}_2\text{H}_2(\text{g}) + 5\text{O}_2(\text{g}) \rightarrow 4\text{CO}_2(\text{g}) + 2\text{H}_2\text{O}(\text{g})$
- (w) $8\text{Pb}(\text{s}) + 1\text{S}_8(\text{s}) + 16\text{O}_2(\text{g}) \rightarrow 8\text{PbSO}_4(\text{s})$
- (x) $1\text{P}_4\text{O}_{10}(\text{s}) + 6\text{H}_2\text{O}(\text{l}) \rightarrow 4\text{H}_3\text{PO}_4(\text{l})$
- (y) $1\text{BCl}_3(\text{g}) + 3\text{H}_2\text{O}(\text{l}) \rightarrow 1\text{H}_3\text{BO}_3(\text{s}) + 3\text{HCl}(\text{g})$
- (z) $1\text{TiCl}_4(\text{l}) \rightarrow 1\text{Ti}(\text{s}) + 2\text{Cl}_2(\text{g})$