

Revision Exercise – Balanced Equations

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Use symbols and formulae to write **balanced** chemical equations for each of the following reactions.

- a) The reaction of carbon with oxygen to produce carbon dioxide.
- b) The formation of hydrogen bromide from bromine and hydrogen gas.
- c) The reaction of silicon with chlorine to produce a new substance.
- d) The decomposition of hydrogen chloride.
- e) The reaction between hydrogen and oxygen.
- f) The formation of sulphur trioxide.
- g) The formation of carbon tetrafluoride.
- h) The production of ammonia (nitrogen hydride).

- i) sulfur + oxygen \longrightarrow sulfur dioxide
- j) magnesium + oxygen \longrightarrow magnesium oxide
- k) calcium + water \longrightarrow calcium hydroxide + hydrogen
- l) phosphorous + chlorine \longrightarrow phosphorous chloride
- m) carbon hydride + oxygen \longrightarrow carbon dioxide + water
- n) magnesium + sulphur dioxide \longrightarrow magnesium oxide + sulfur
- o) iron + oxygen \longrightarrow iron (III) oxide
- p) silver (I) nitrate + sodium chloride \longrightarrow sodium nitrate + silver (I) chloride
- q) aluminium + iron (III) oxide \longrightarrow iron + aluminium oxide
- r) iron (II) chloride + barium hydroxide \longrightarrow iron (II) hydroxide + barium chloride
- s) strontium oxide + hydrogen nitrate \longrightarrow strontium nitrate + water
- t) barium chloride + lithium sulfate \longrightarrow lithium chloride + barium sulfate
- u) calcium carbonate + hydrogen chloride \longrightarrow calcium chloride + carbon dioxide + water
- v) calcium carbonate \longrightarrow calcium oxide + carbon dioxide
- w) calcium nitrate + potassium carbonate \longrightarrow calcium carbonate + potassium nitrate
- x) sodium hydroxide + hydrogen sulfate \longrightarrow sodium sulfate + water
- y) aluminium + hydrogen sulfate \longrightarrow aluminium sulfate + hydrogen
- z) potassium hydroxide + lead (II) chloride \longrightarrow lead (II) hydroxide + potassium chloride