



Chem!stry

Name: ()

Class:

Date: / /

Balancing Chemical Equations – Advanced

• Balance each of the following chemical equations by writing a whole number (e.g. 2, 3) in front of the chemical formulae where required:

a) magnesium + steam → magnesium oxide + hydrogen

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b) sodium + water → sodium hydroxide + hydrogen

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c) calcium + water → calcium hydroxide + hydrogen

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d) hydrogen + oxygen → water

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e) aluminium + oxygen → aluminium oxide

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f) aluminium + iodine → aluminium iodide

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g) hydrogen + nitrogen → ammonia

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h) hydrogen + chlorine → hydrogen chloride

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i) potassium + chlorine → potassium chloride

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j) hydrochloric acid + zinc → zinc chloride + hydrogen

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k) sulfuric acid + magnesium → magnesium sulfate + hydrogen

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l) hydrochloric acid + calcium carbonate → calcium chloride + carbon dioxide + water

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m) sulfuric acid + iron → iron(II) sulfate + hydrogen

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n) sulfuric acid + sodium carbonate → sodium sulfate + carbon dioxide + water

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o) copper(II) carbonate → copper(II) oxide + carbon dioxide

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p) zinc carbonate → zinc oxide + carbon dioxide

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q) potassium nitrate → potassium nitrite + oxygen

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r) lead(II) nitrate → lead(II) oxide + nitrogen dioxide + oxygen

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s) ammonium chloride → hydrogen chloride + ammonia

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t) hydrogen iodide → hydrogen + iodine

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u) calcium nitrate + sodium hydroxide → calcium hydroxide + sodium nitrate

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v) sulfuric acid + sodium hydroxide → sodium sulfate + water

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w) aluminium + iron(III) oxide → iron + aluminium oxide

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x) copper(II) oxide + hydrogen → copper + water

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y) iron(III) oxide + carbon monoxide → iron + carbon dioxide

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z) manganese(IV) oxide + hydrochloric acid → manganese(II) chloride + chlorine +
water

- Scan the QR code below for the answers to this assignment.



http://www.chemist.sg/formulae_equations/balance_equ_3_ans.pdf