



# Chem!stry

Name: ..... ( )

Class: .....

Date: ..... / ..... / .....

## Balancing Chemical Equations – Advanced

• Write the balanced chemical equation for each one of the following word equations.

**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

.....

**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

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

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

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

.....  
**p)** zinc carbonate → zinc oxide + carbon dioxide

.....  
**q)** potassium nitrate → potassium nitrite + oxygen

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

.....  
**s)** ammonium chloride → hydrogen chloride + ammonia

.....  
**t)** hydrogen iodide → hydrogen + iodine

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

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

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

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

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

.....  
**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](http://www.chemist.sg/formulae_equations/balance_equ_3_ans.pdf)