

# BALANCING EQUATIONS...

...THE EASY WAY

## The basis of this method

Write out, Check for balance, Add new row, Repeat, Count your rows

## Simple fully worked example

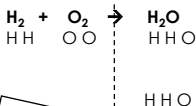
1. Write out atoms on either side of the arrow line
2. Check for balance – H yes, O no
3. Add new row for the side which needs more of the unbalanced O – new row of H<sub>2</sub>O (remember H<sub>2</sub>O comes as a whole package)

### Back to step 2

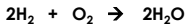
2. Check for balance – H no, O yes
3. Add new row for the side which needs more H – new row of H<sub>2</sub>

### Back to step 2

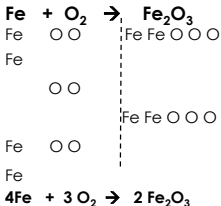
2. Check for balance – H yes, O yes
3. No longer required!
4. Count how many rows you have used for each substance in total and add numbers in the front of the equation (remember we don't use 1 we leave it blank)



H<sub>2</sub>O is a molecule – we can't split it up when we want to add new atoms



Posh word for numbers in-front is stoichiometry



## More tricky worked example

Doesn't balance. Let's start with Fe. Add to left side

Balances for Fe but not O. Add to left side

Balances for Fe but not O. Add to right side

Doesn't balance for either. Add to left side

Doesn't balance for Fe. Add to left side

Count the rows and add the numbers

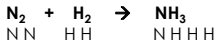
# BALANCING EQUATIONS...

...THE EASY WAY

## The basis of this method

Write out, Check for balance, Add new row, Repeat, Count your rows

## Your turn



Check for balancing

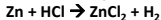
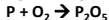
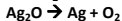
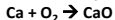
Add to the side with least N

Check then add to the side with least H

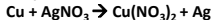
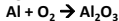
Check then add to side with the least H

Count rows then add numbers

## This seems quite hard and need to practice the basics...



## I get this now I need some good solid practice...



## I've practiced examples above and want a challenge...

