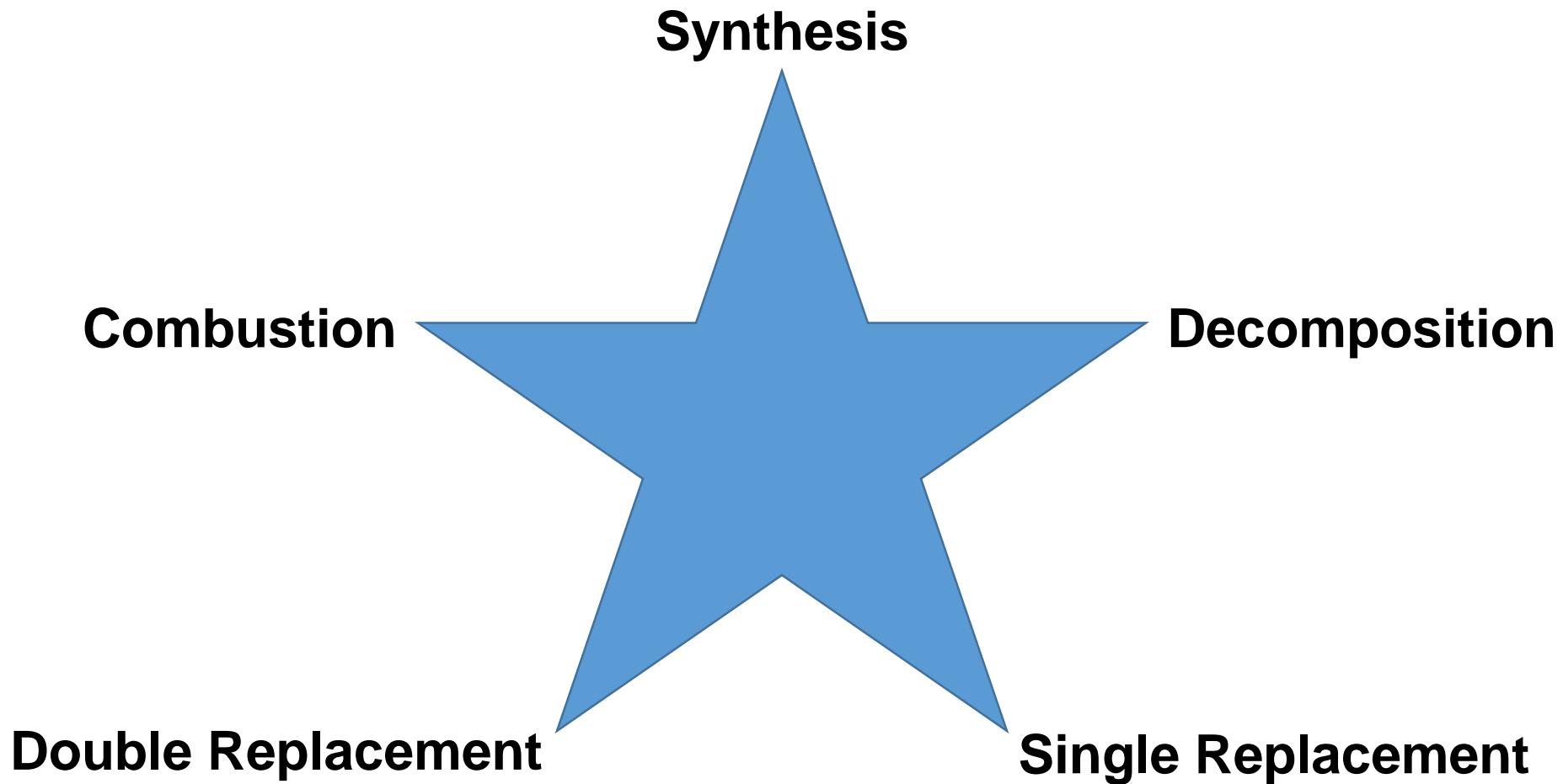


N23 - Types of Reactions



5 Main Categories

Helps us predict things about the reactions

Know the reactants?

You can predict the products

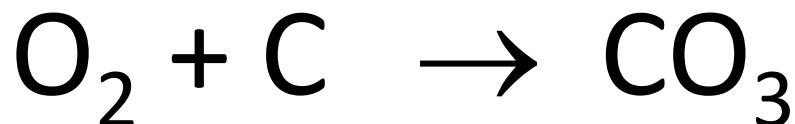
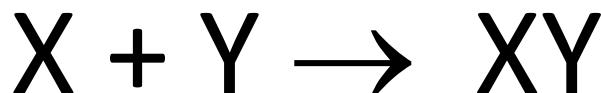
Know the products?

You can predict the reactants

Synthesis

Two things combining into one

Example:



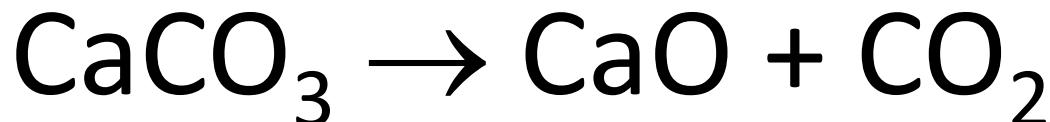
What to look for:

More reactants than products

Decomposition

One thing falling apart into two

Example:



What to look for:

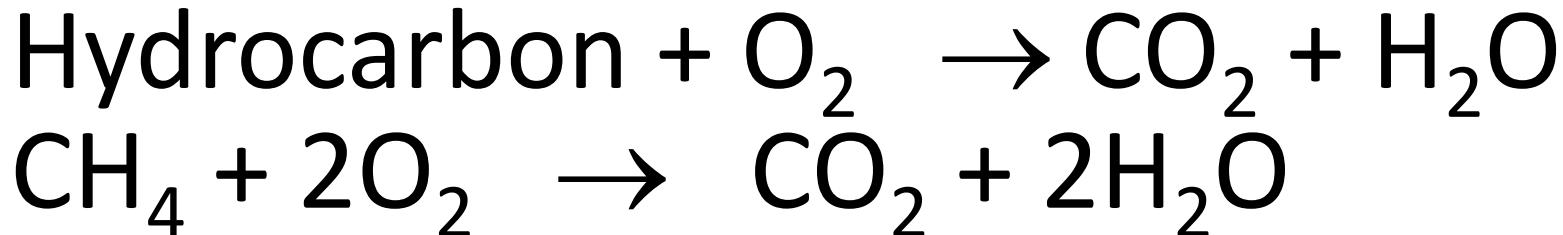
More products than reactants

Combustion

Burning

Example:

(almost always a hydrocarbon)



What to look for: (Usually)

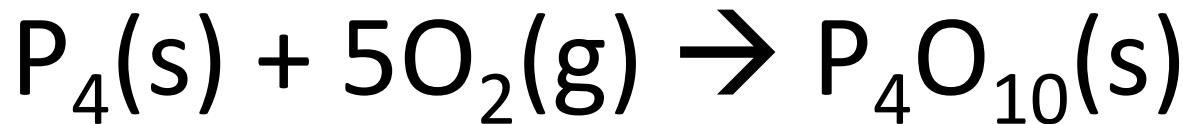
Reactants = Hydrocarbon and O₂

Products = CO₂ and H₂O

Combustion

Burning

OTHER Type of Example:



What to look for:

Reactants = Something reacting w/O₂

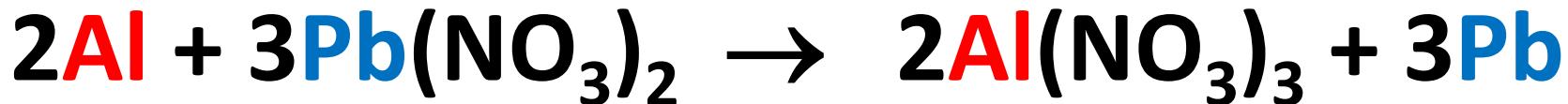
Products = *You would not be expected to know what the products are.*

Careful not to say it's synthesis!
That isn't specific enough!

Single Replacement

Swapping one element

Example:



What to look for:

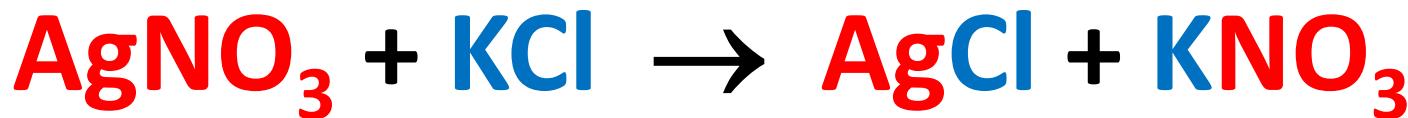
Reactants = 1 element and 1 compound

Products = 1 element and 1 compound,
but different ones

Double Replacement

Swapping two elements

Example:



What to look for:

Reactants = 2 Compounds

Products = 2 Compounds but different ones

For Replacement Rxns

- *If element is a cation, replace it with the other cation. If it is an anion, replace it with the other anion*
- *All neutral compounds need to have a cation and anion when finished (IN THAT ORDER)*
- *You need NEW subscripts – cross over FROM SCRATCH*
- *Careful about diatomic elements in single replacements – they need to be diatomic!*