

REACTION TYPES

Synthesis: $A + B \rightarrow AB$ 1 product

$2H_2 + O_2 \rightarrow 2H_2O$

Decomposition: $AB \rightarrow A + B$ 1 reactant

$2H_2O \rightarrow 2H_2 + O_2$

Combustion: $C_xH_y + O_2 \rightarrow CO_2 + H_2O$ always a reactant only products

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CHECK FOR UNDERSTANDING

Determine the type of reaction for the following:

1. $2Al + 3S \rightarrow Al_2S_3$ Synthesis
2. $Ni(OH)_2 \rightarrow NiO + H_2O$ Decomp
3. $H_2O + N_2O_5 \rightarrow 2HNO_3$ Synthesis
4. $2NaHCO_3 \rightarrow Na_2CO_3 + CO_2 + H_2O$ Decomposition
5. $4NO_2 + O_2 \rightarrow 2N_2O_5$ Syn
6. $2C_2H_6 + 7O_2 \rightarrow 4CO_2 + 6H_2O$ COMB
7. $2Al_2O_3 \rightarrow 4Al + 3O_2$ D

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Predicting Products:

-- determine the type of reaction
 -- follow the pattern outlined by the type of reaction

example:

1. type: combust.

$C_2H_4O_2 + 2O_2 \rightarrow 2CO_2 + 2H_2O$

C=2	C= 2
H=4	H= 4
O= 6	O= 6

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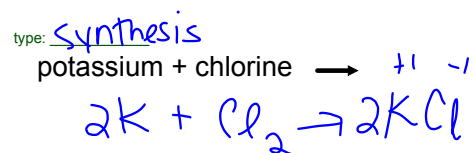
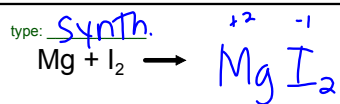
Practice:

2. type: decomp.

$2PBr_3 \rightarrow 2P + 3Br_2$

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Practice:



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