

Ch 11 HW Sec Asses 25,26 Her Chm 45,47(a),48(a,b),  
 Sec 11.2 49(a,b),51(a,b)  
 obj: Predict products from a chemical reaction.

### Predicting Products

- Depends on the Type of Reaction.

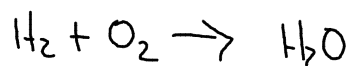
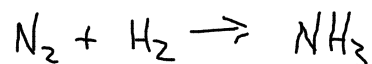
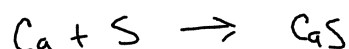
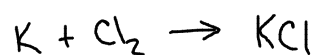
#### 1) Combination Rxn

- Possible Reactants

- 2 elements

- 2 molecular Compounds (diatomic Molecules)

- Products are a combination of both reactants.



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#### 2) Decomposition Rxn

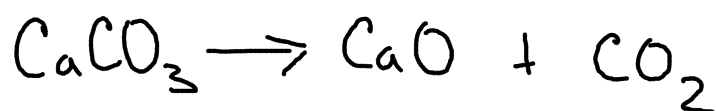
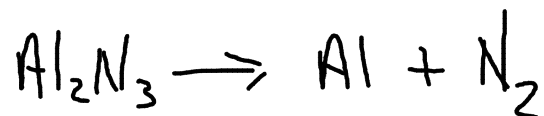
- Possible Reactant

- Binary Compound

- Ternary Compound

- Products

- 2 elements or 2 compounds



Dec 1 - 11:29 AM

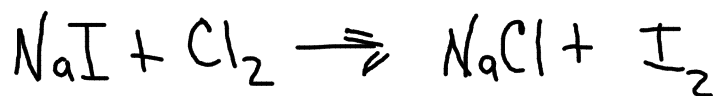
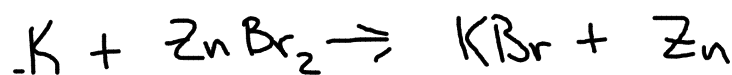
## 3) Single Replacement

- Possible Reactants

- An element + an ionic compound.  
↳ Metal or Halogen

- Products

- \* Depends on the activity series



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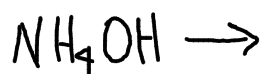
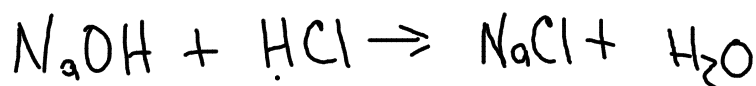
## 4) Double Replacement

- Possible reactants

- 2 Ionic Compounds.

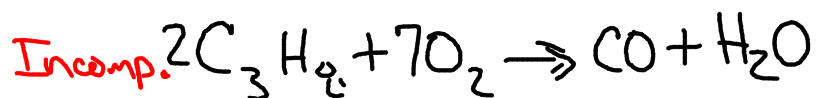
- Products

- Must have a precipitate, molecular compound ( $H_2O$ ) or a gas.



Dec 1 - 11:45 AM

- 5) Combustion Rxn
- Possible Reactants
    - Fuel and  $O_2 \Rightarrow \text{Fuel}(C_xH_y)$
  - Products  $CO_2 + H_2O \rightarrow$  Complete  
 $CO + H_2O \rightarrow$  Incomplete.



Dec 1 - 11:53 AM