Reactions

cracking - reaction in which hydrocarbons are broken into smaller fragments

• this reaction occurs in the absence of air, and with a catalyst or heat, to speed up the reaction.

Ex.
$$C_{17}H_{36(l)}$$
 \longrightarrow $C_9H_{20(l)} + C_8H_{16(l)}$ *atoms must be conserved!

reforming - reaction in which large molecules are formed from smaller ones

• this reaction normally occurs with the help of a catalyst or heat

Ex.
$$C_5H_{12(l)} + C_5H_{12(l)} \longrightarrow C_{10}H_{22(l)} + H_{2(g)}$$

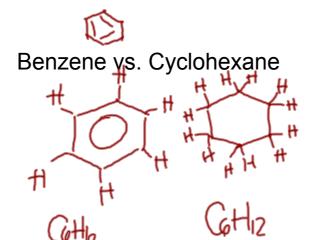
combustion - a reaction between a compound and oxygen to produce the most common oxides.

Ex.
$$2C_8H_{18(l)} + 25O_2 \longrightarrow 16CO_{2(g)} + 18H_2O_{(g)} + energy$$
"burning"

addition (hydrogenation) reaction - a reaction in which an unsaturated molecule reacts with hydrogen (diatomic).

CnH2n+2

Common Mistakes...



Benzene as a branch (phenyl)

ortho, meta, para-dimethylbenzene

dimethyl-2-butene

Worksheet - Naming Hydrocarbons

Worksheet

Quiz - Tomorrow