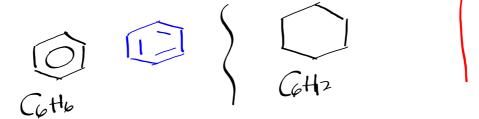
Worksheet 47 - Questions?



Common Mistakes...

Benzene vs. Cyclohexane



Benzene as a branch (phenyl)

ortho, meta, para-dimethylbenzene

dimethyl-2-butene

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.
$$C_{17}H_{36(1)} \longrightarrow C_9H_{20(1)} + C_8H_{16(1)}$$
*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.
$$C_5H_{12(1)} + C_5H_{12(1)} \longrightarrow C_{10}H_{22(1)} + H_{2(g)}$$

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).

$$C_{3}H_{4} + H_{2}$$

$$-C \equiv C - C - + H_{2} \rightarrow -C = C - C -$$

$$-C \equiv C - C - + H_{2} \rightarrow -C - C - C -$$

$$(excess)$$

$$H H$$

Worksheet - Naming Hydrocarbons

Worksheet

Quiz - Tomorrow