Alkenes

Longest chain has six carbons - hexene
Double bond in 3\textsuperscript{rd} position - 3-hexene
Methyl on 2\textsuperscript{nd} and 4\textsuperscript{th} carbon - 2,4-dimethylhex-3-ene

E - heavy (high priority) on opposite side
Z - heavy (high priority) on same side

(E)-2,4-dimethylhex-3-ene  (Z)-2,4-dimethylhex-3-ene

How many \( \text{C}_5\text{H}_{10} \) alkene isomers can you draw?
A 4  B 5  C 6  D 8  E 10  F 11  G 12  H 13  I 14
Include stereoisomers

Draw the structure of
(E)-4-chlorohept-3-ene

E - heavy (high priority) on opposite side
Z - heavy (high priority) on same side

A  B  C  D

Are any of these chiral?
How many $C_5H_{10}$ isomers can you draw?

A 4   B 5   C 6   D 8   E 10   F 11   G 12   H 13   I 14

Include stereoisomers

Mirror Plane

Achiral

Chiral

Mirror plane goes through the molecule

Mirror plane goes between the molecules

Alkynes

$C_nH_{2n-2}$

alkynes

dienes

allenes - 2 double bonds in a row

How many acyclic (no rings) compounds with formula $C_5H_8$ can you draw?

A 4   B 5   C 6   D 8   E 10   F 11   G 12   H 13   I 14