

13 Introduction to organic chemistry

– Part 1 — Answers

Answers

Work through these after trying the questions yourself.

13.1 The reactive part of a molecule, which decides its reactions.

13.2 C_nH_{2n+2} .

13.3 CH_2 .

13.4 Homolytic fission splits a bond evenly (one electron to each atom, making two radicals); heterolytic fission splits it unevenly (both electrons to one atom, making two ions).

13.5 A species with a lone pair that is attracted to a positive (electron-poor) centre.

13.6 A simple zigzag of three lines (four carbons at the corners/ends), with no atoms drawn.

13.7 Bromine is more electronegative than carbon, so it pulls the bonding electrons towards itself, leaving the carbon slightly positive ($\delta+$). A nucleophile, which has a lone pair, is attracted to this electron-poor carbon and attacks there.