

Competition Corner: Connectivity Evidence

g10_u07_w25

Use only condensed-formula cards and the stated introductory scope. Identify connectivity evidence, distinguish a formula from a structure, and do not infer health, pharmaceutical, or hazard claims.

1. Classify $\text{CH}_3\text{CH}=\text{CHCH}_3$ and give an introductory unbranched name that includes the double-bond location.
2. Compare $\text{CH}_3\text{CH}_2\text{OH}$ and CH_3OCH_3 . What shared molecular formula might they have, and what structural information differs?
3. A formula card has -C(=O)OH and also contains -OH . Explain why the larger pattern controls the stated classification.
4. A student says that every formula with carbon is in this week's functional-group list. Critique the claim using the limited scope card.
5. State two pieces of additional evidence that would be needed before making a claim about a real substance's 3-D shape, reaction outcome, hazard, or use.