

Competition Corner: Representation Constraints

g12_u01_w01

Original fictional structure-card challenges. No synthesis or chemical action is implied.

Challenge 21. A fictional formula card is $\text{C}_3\text{H}_6\text{O}$. Give two distinct possible functional-group classes consistent with this formula, describe one representation for each in words, and explain why formula alone cannot determine the correct structure.

Challenge 22. A fictional card shows a four-carbon parent chain with a methyl branch at carbon 2 and an alcohol group at carbon 1. Construct a systematic name, then state one stereochemical or conformational detail that the name alone does not determine.