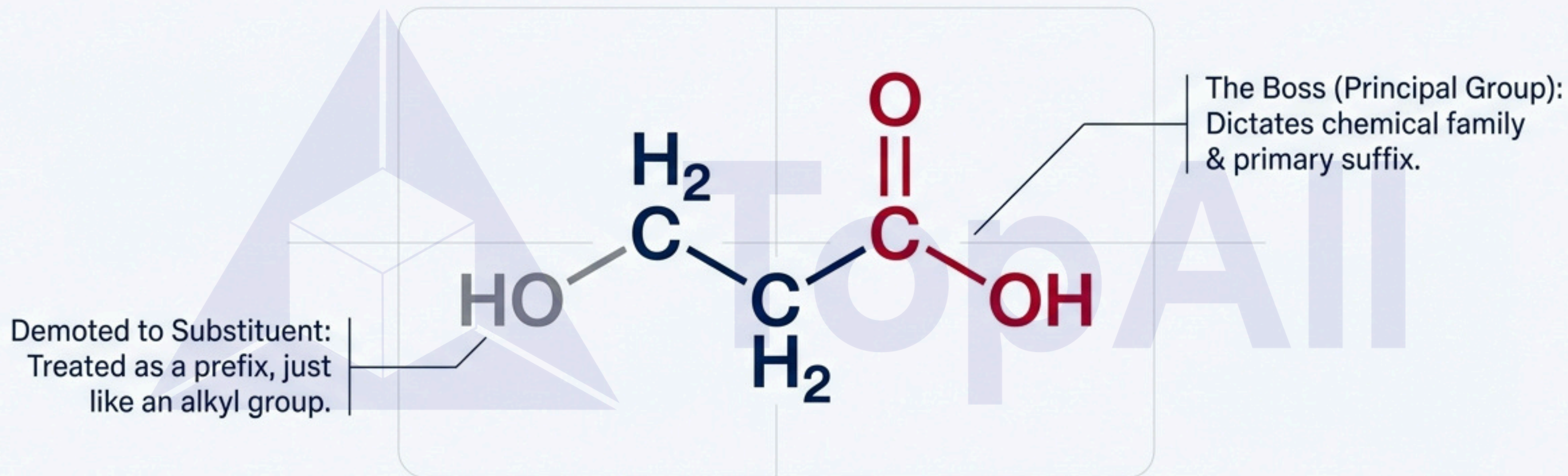
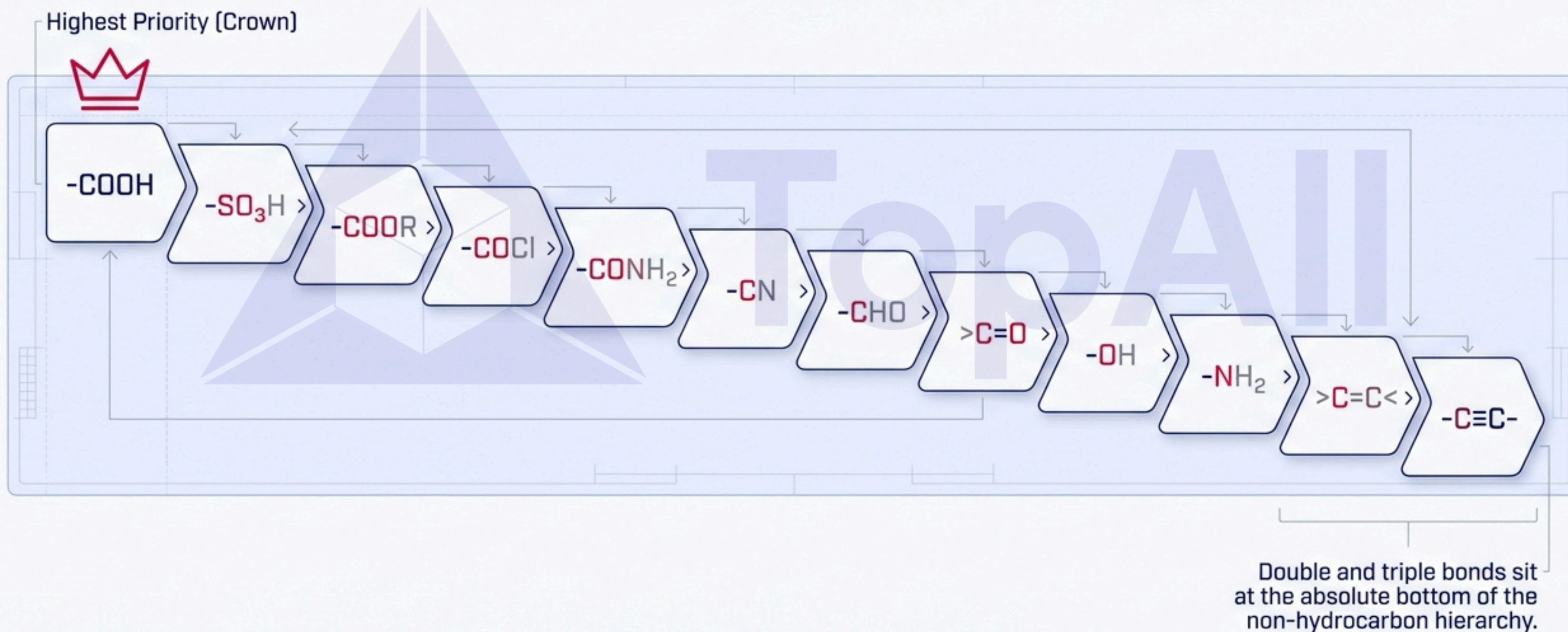


Identify the Principal Functional Group First

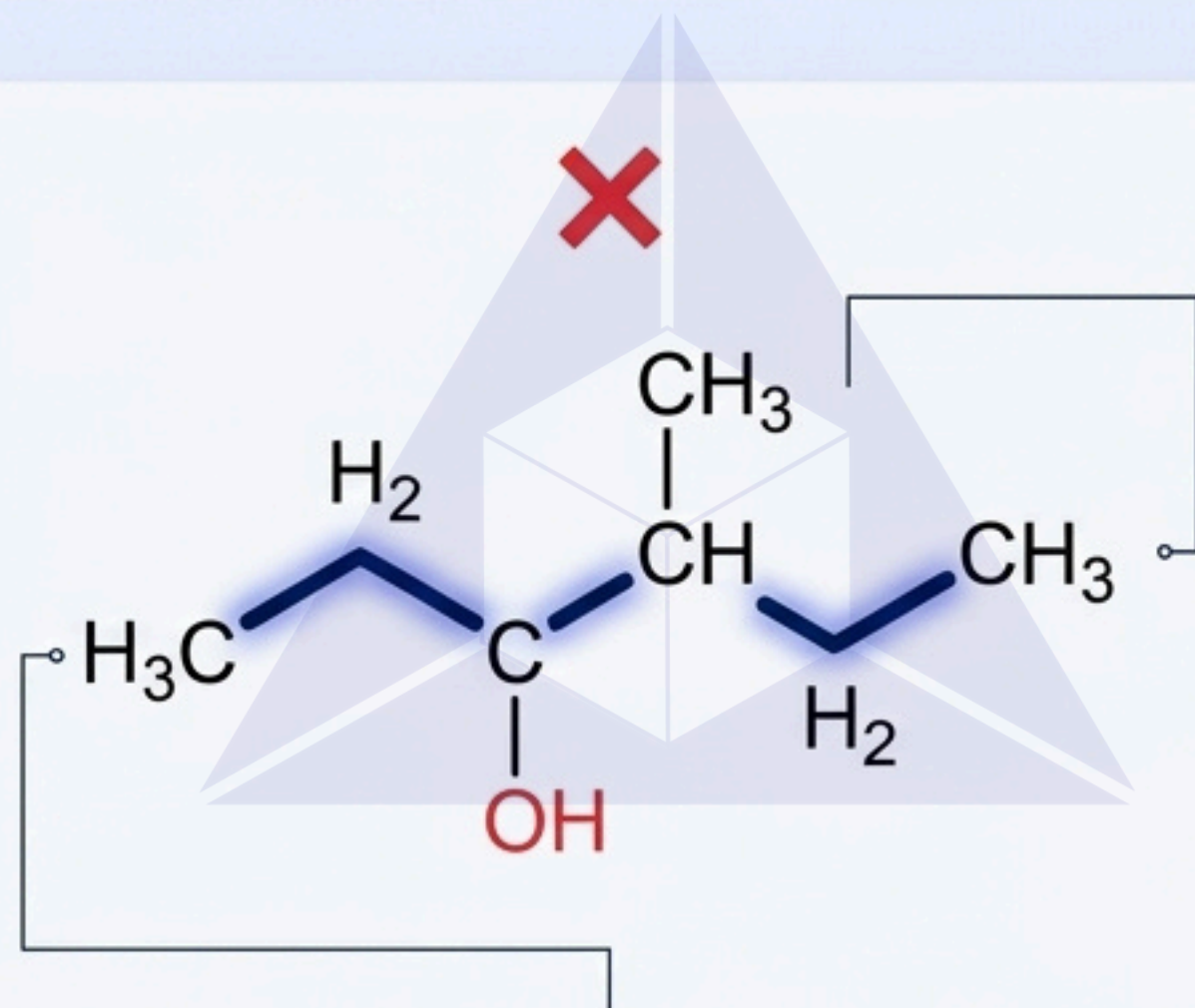


When ≥ 2 functional groups are present, one acts as the Principal Group.
All others become subordinate prefixes.

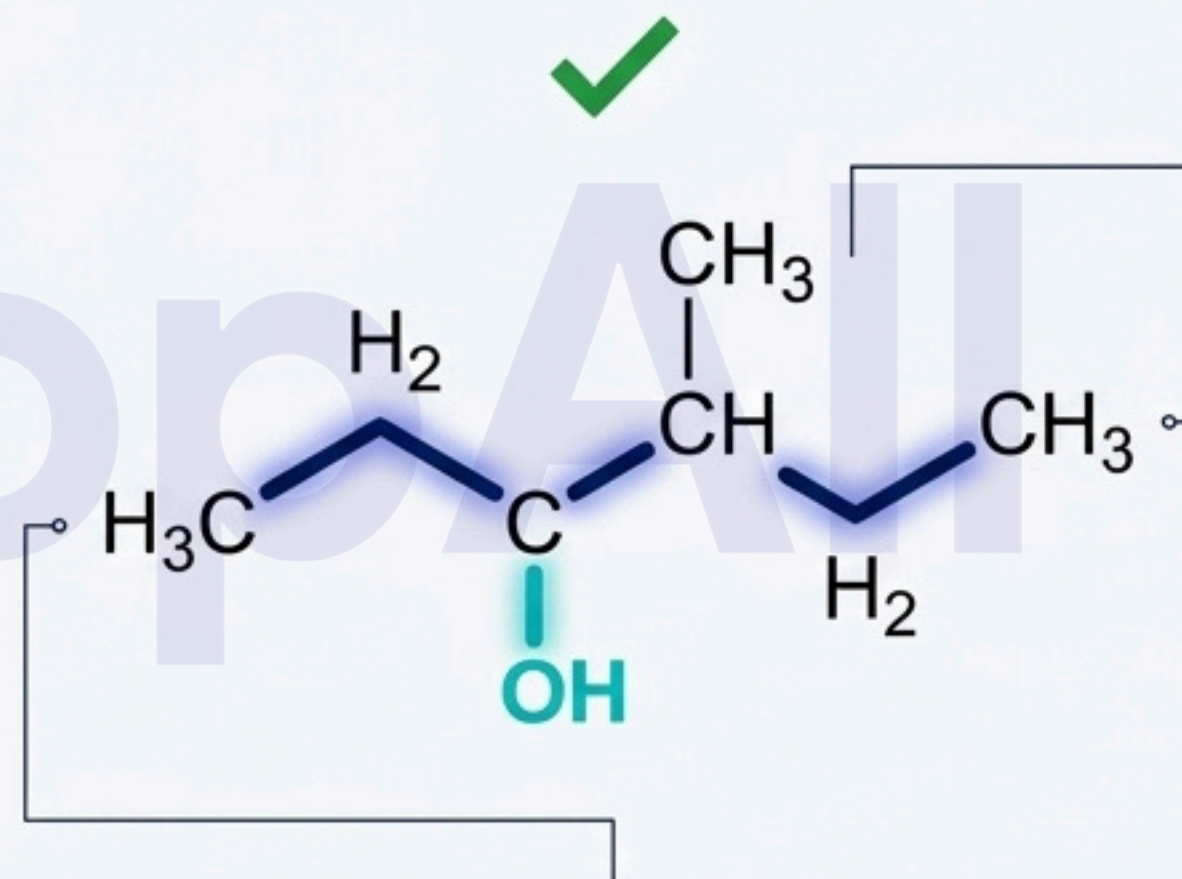
The Priority Ladder Dictates Molecular Dominance



The Parent Chain Must Anchor the Principal Group



Fails to include the Principal Group.



Valid territory: The longest possible chain that contains the Principal Group.



**You've Learned the Theory.
Let's Test Them Now.**

$$E=mc^2$$



Turn theory into marks with **unlimited MCQs, smart analysis, and focused revision.**

Practice Now



At prep.topall.app

Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter



The Dual Identity: Suffix vs. Prefix Nomenclature

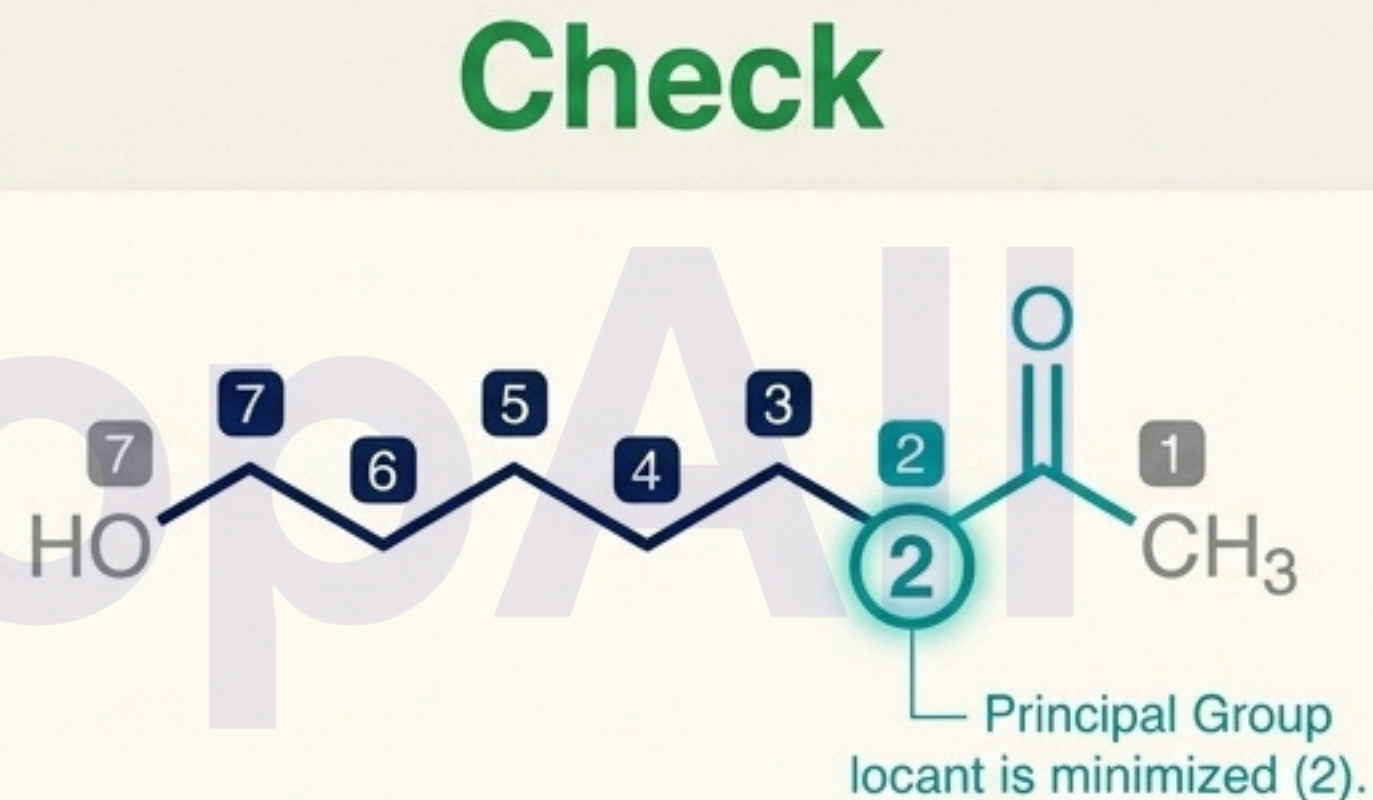
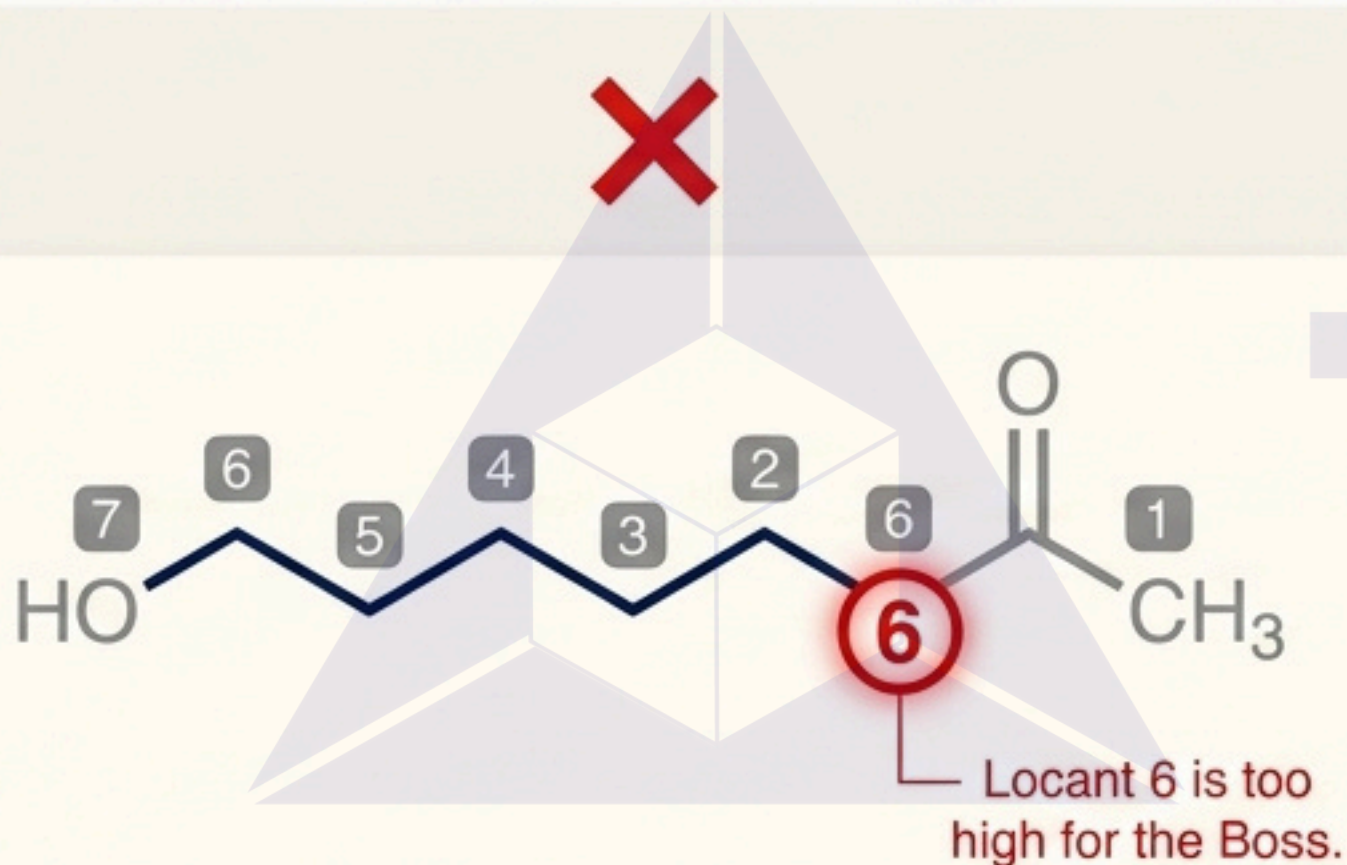
Functional Group	If Boss (Suffix)	If Subordinate (Prefix)
-COOH	-oic acid	carboxy
-CN	-nitrile	cyano
-CHO	-al	formyl / oxo
>C=O	-one	oxo
-OH	-ol	hydroxy
-NH ₂	-amine	amino

In a molecule with both $>\text{C}=\text{O}$ and -OH, $>\text{C}=\text{O}$ wins.

Therefore:

-one (suffix) +
hydroxy- (prefix).

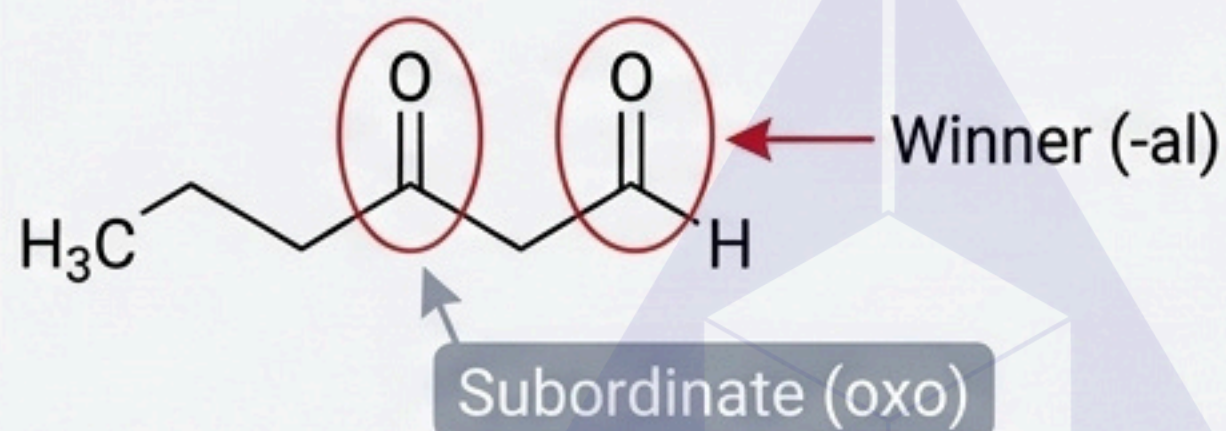
Numbering the Coordinates to Minimize the Boss Locant



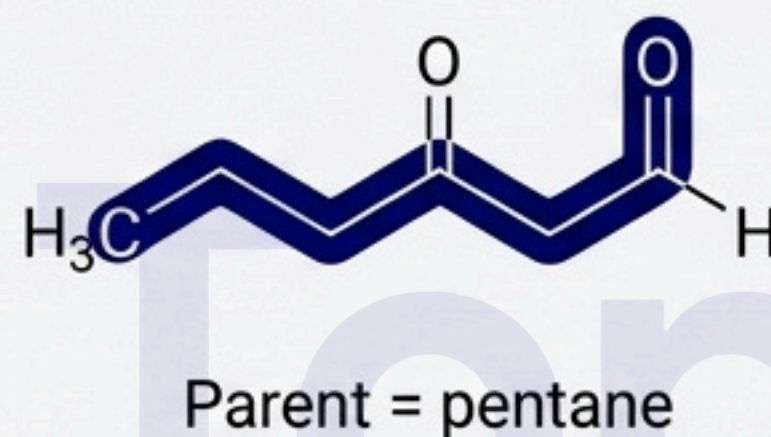
The parent chain is numbered such that the principal functional group receives the lowest possible locant, regardless of substituent positions.

Executing the Blueprint on a Complex Molecule

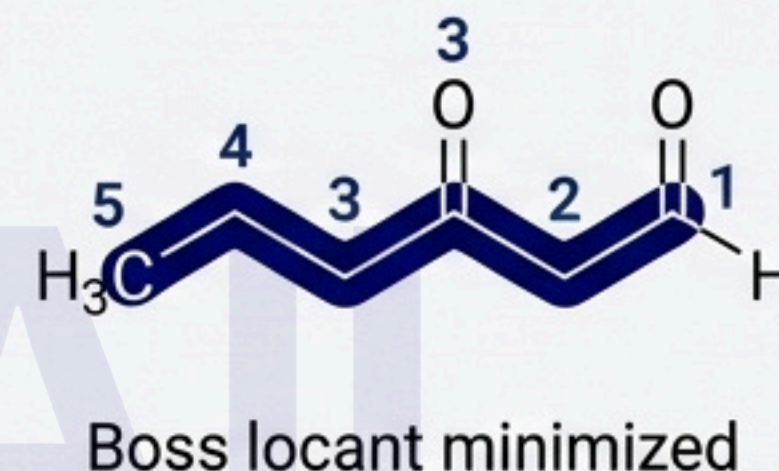
1 Identify Boss



2 Anchor Chain



3 Numbering



4 Assemble Name



Debugging Common Nomenclature Traps

The Alphabetical Trap

Trap

Ordering prefixes by their locant numbers (e.g., ~~2-methyl-3-ethyl~~).

Truth

Prefixes are ALWAYS listed in alphabetical order, completely ignoring their locant numbers.
Correct: 3-**e**thyl-2-**m**ethyl.

The Tie-Breaker Prefix Trap

Trap

Assuming all multiplier or structural prefixes count toward alphabetization.

Truth

Prefixes **iso-** and **neo-** ARE considered part of the fundamental alkyl name for alphabetizing.

However, **sec-**, **tert-**, and multipliers (**di-**, **tri-**) are **IGNORED** when alphabetizing.

Nomenclature Compilation: The Revision Frame

Master Equation

$$\left[\begin{array}{c} \text{Secondary Prefix} \\ \text{(Substituents)} \end{array} \right] + \left[\begin{array}{c} \text{Primary Prefix} \\ \text{(Cyclo)} \end{array} \right] + \left[\begin{array}{c} \text{Word Root} \\ \text{(Carbon Chain)} \end{array} \right] + \left[\begin{array}{c} \text{Primary Suffix} \\ \text{(C-C Bonds)} \end{array} \right] + \left[\begin{array}{c} \text{Secondary Suffix} \\ \text{(Principal Group)} \end{array} \right]$$

Priority Dominance

|
-COOH >
-SO₃H >
-COOR >
-COCl >
-CONH₂ >
-CN >
-CHO >
>C=O >
-OH >
-NH₂ >
= >
≡

Execution Algorithm



1. **Identify the Boss:** Highest priority group dictates the suffix.



2. **Anchor the Chain:** Longest continuous path containing the Boss.



3. **Minimize the Locant:** Numbering must give the Boss the lowest possible number. Substituent numbers are secondary.



TopAll



You've Learned the Theory.

Now Let's Test It.

Reading notes gets you knowledge.

Practicing MCQs gets you marks.

That's exactly what TopAll Pro is built for.

Try TopAll Pro Now

What TopAll Pro Does Differently

-  **Stuck? Snap it. Solve it. — Doubts AI**
Photo → step-by-step solution in seconds, 24/7
-  **Your AI Coach finds your blind spots**
Concept-level weakness detection — not just chapter-level
-  **4.5 Lakh+ questions. Never run out.**
13× more content than any other prep app in India
-  **Build your own test in 60 seconds**
Pick a chapter, set difficulty — AI does the rest instantly.
-  **AI Recommendation that helps you improve**
AI Recommendation Analysis your Tests and tell you where you need to improve.



Practice the moment you finish studying
Jump in while the concept is still fresh in your head

4.5L+
MCQs

1.5L+
Students

AI Powered
In-Depth Analysis