

Stoichiometry from Balanced Equations



Translating the Chemical Sentence

Deconstructing the Formula



Stoichiometric Coefficients

These integers represent the exact number of molecules (and moles) taking part in or formed by the reaction.



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



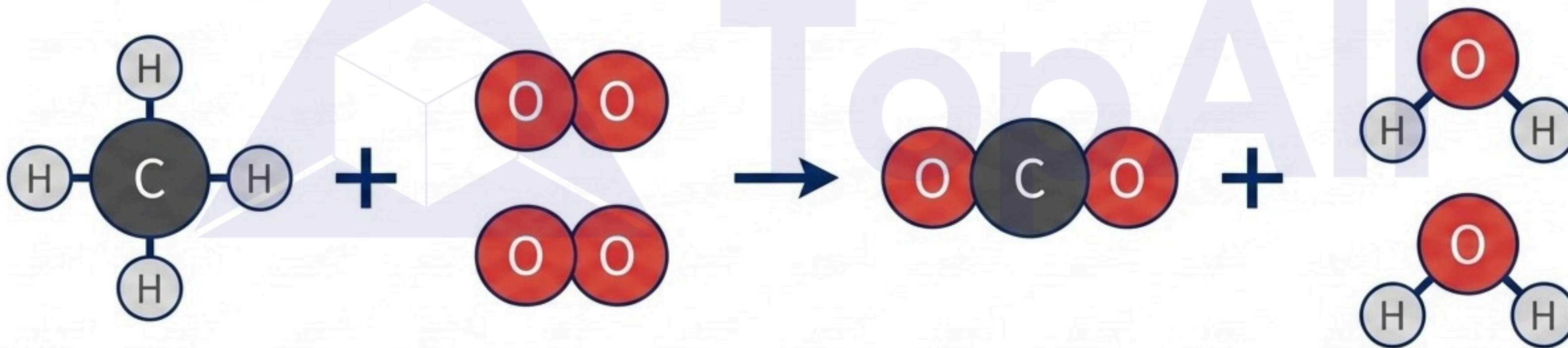
At prep.topall.app

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 Molecular Reality



Every single atom is accounted for. The coefficients balance the physical reality.

The Rosetta Stone: 4 Ways to Translate a Ratio



Ratio: 1 : 2 : 1 : 2

Ratio: 1 : 2 : 1 : 2			
Molecule Ratio	Mole Ratio	Volume Ratio (STP)	Mass Relation
1 molecule : 2 molecules → 1 molecule : 2 molecules	1 mol : 2 mol → 1 mol : 2 mol	22.7 L : 45.4 L → 22.7 L : 45.4 L	16 g : 64 g (2×32) → 44 g : 36 g (2×18)

Masses are derived from molar mass, not directly from the coefficient integer.

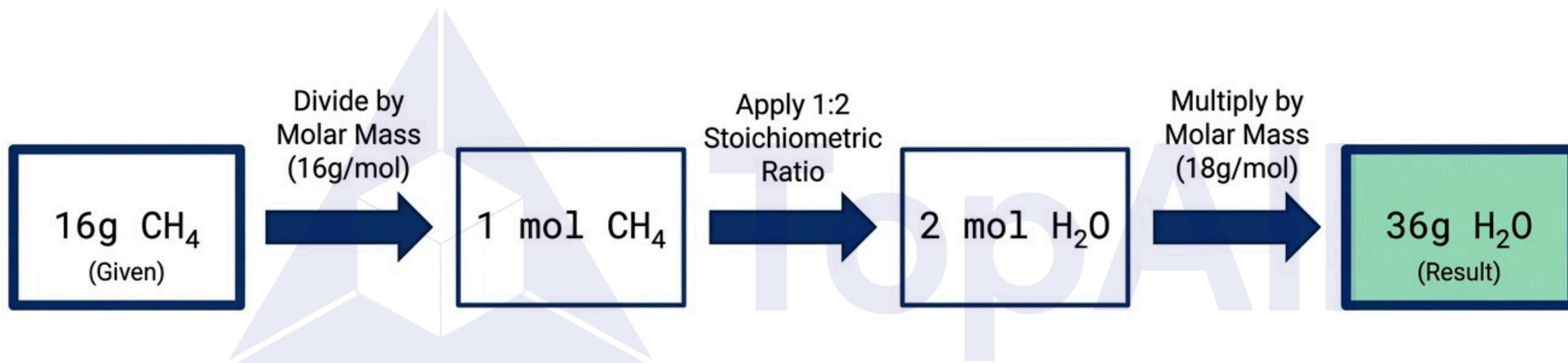
JEE TRAP ALERT: THE MASS FALLACY



- Stoichiometric coefficients represent MOLE ratios, never directly gram/mass ratios.
- Do not read a coefficient of '2' as '2 grams'. Always convert mass to moles first.

Mini Application: Calculating Yield

Ref: Problem 1.3: Calculate the amount of water (g) produced by the combustion of 16 g of methane.



Revision: Rule Zero of Stoichiometry



Rule Zero: You cannot do math on an unbalanced equation.

Subscripts dictate the chemical identity. Coefficients dictate the quantities. Always verify the atom count matches on both sides before applying mole ratios, volumes, or masses.





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