

TRIGONOMETRY MASTER NOTES

CBSE CLASS 10

NCERT 2026-27

Complete Zero → Advanced Concept, Tricks, Hacks & PYQ Guide

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1. Introduction to Trigonometry & Trigonometric Ratios

① WHAT?

Trigonometry (derived from Greek: *Trigonon* = Triangle, *Metron* = Measure) is the study of relationships between side lengths and angles of a right-angled triangle.

② WHY?

It allows us to measure heights and distances that are otherwise impossible to measure directly (e.g., height of a mountain, width of a river, distance to stars).

③ HOW & CONDITIONS?

Always applicable in a **Right-Angled Triangle** ($\angle B = 90^\circ$). The sides are designated with respect to an acute angle θ :

- **Hypotenuse (H)**: Side opposite to 90° (longest side).
- **Perpendicular (P)**: Side opposite to angle θ .
- **Base (B)**: Side adjacent to angle θ .

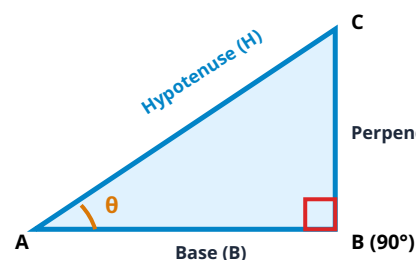


Fig 1.1: Right Triangle ABC with reference angle θ

THE 6 TRIGONOMETRIC RATIOS

Ratio	Formula	Reciprocal Relation
Sine ($\sin \theta$)	$P / H = BC / AC$	$\sin \theta = 1 / \operatorname{cosec} \theta$
Cosine ($\cos \theta$)	$B / H = AB / AC$	$\cos \theta = 1 / \sec \theta$
Tangent ($\tan \theta$)	$P / B = BC / AB$	$\tan \theta = 1 / \cot \theta = \sin \theta / \cos \theta$
Cosecant ($\operatorname{cosec} \theta$)	$H / P = AC / BC$	$\operatorname{cosec} \theta = 1 / \sin \theta$
Secant ($\sec \theta$)	$H / B = AC / AB$	$\sec \theta = 1 / \cos \theta$
Cotangent ($\cot \theta$)	$B / P = AB / BC$	$\cot \theta = 1 / \tan \theta = \cos \theta / \sin \theta$

🔥 TINKU SIR TRICK: The Golden Memory Mnemonic

To remember *sin*, *cos*, *tan* ratios effortlessly:

"Pandit Badri Prasad // Har Har Bhole" → P/H (*sin*) | B/H (*cos*) | P/B (*tan*)

Alternatively in English: **"Some People Have // Curly Brown Hair // Through Proper Brushing"**

● COMMON MISTAKE: Changing Reference Angle

WRONG: Thinking Perpendicular is ALWAYS the vertical side.

RIGHT: Perpendicular is ALWAYS the side *opposite to the chosen angle*! If reference angle changes to $\angle C$:

• $\sin C = AB / AC$ (Base of $\angle A$ becomes Perpendicular for $\angle C$!).

🚀 ONEPATH HACK: PYTHAGOREAN TRIPLETS (Fast Calculation)

Memorize these fundamental triplets to bypass Pythagoras Theorem steps in MCQs:

(3, 4, 5)

(5, 12, 13)

(7, 24, 25)

(8, 15, 17)

(9, 40, 41)

Note: Any multiple of a triplet is also a triplet! E.g., double of (3,4,5) $\rightarrow$ (6,8,10).

📝 SOLVED EXAMPLE 1 (Standard CBSE 2-Mark Pattern)

Question: Given $15 \cot A = 8$, find $\sin A$ and $\sec A$.

🔍 **Concept Identification:** Trigonometric ratio definitions & Pythagoras Theorem.

✏️ Step-by-Step Solution:

1. Given $15 \cot A = 8 \Rightarrow \cot A = 8 / 15$.
2. Since $\cot A = \text{Base} / \text{Perpendicular} = B / P$, let $B = 8k$ and $P = 15k$ (where $k > 0$ is a constant).
3. By Pythagoras Theorem: $H^2 = P^2 + B^2 = (15k)^2 + (8k)^2 = 225k^2 + 64k^2 = 289k^2$.
4. Taking square root: $H = 17k$ (Triplet 8, 15, 17!).
5. Now, $\sin A = P / H = 15k / 17k = 15 / 17$.
6. $\sec A = H / B = 17k / 8k = 17 / 8$.

✅ **Final Answer:** $\sin A = 15/17$, $\sec A = 17/8$.

2. Trigonometric Ratios of Specific Angles (0° , 30° , 45° , 60° , 90°)

CBSE Class 10 requires exact evaluation of ratios for standard angles. Below is the master table and memory structure.

Ratio \ Angle ($^\circ$)	0°	30°	45°	60°	90°
$\sin \theta$	0	$1/2$	$1/\sqrt{2}$	$\sqrt{3}/2$	1
$\cos \theta$	1	$\sqrt{3}/2$	$1/\sqrt{2}$	$1/2$	0
$\tan \theta$	0	$1/\sqrt{3}$	1	$\sqrt{3}$	Not Defined (∞)
$\operatorname{cosec} \theta$	Not Defined (∞)	2	$\sqrt{2}$	$2/\sqrt{3}$	1
$\sec \theta$	1	$2/\sqrt{3}$	$\sqrt{2}$	2	Not Defined (∞)
$\cot \theta$	Not Defined (∞)	$\sqrt{3}$	1	$1/\sqrt{3}$	0

TINKU SIR TRICK: The Finger Trick / Square-Root Trick for Table

To construct the $\sin \theta$ row in 5 seconds without memorization:

Write numbers 0, 1, 2, 3, 4 $\rightarrow$ Divide each by 4 $\rightarrow$ Take Square Root:

$$\sqrt{(0/4)} = 0 \mid \sqrt{(1/4)} = 1/2 \mid \sqrt{(2/4)} = 1/\sqrt{2} \mid \sqrt{(3/4)} = \sqrt{3}/2 \mid \sqrt{(4/4)} = 1$$

Reverse this order for $\cos \theta$! Then divide $\sin \theta / \cos \theta$ to get $\tan \theta$!

ONEPATH HACK: Important Values to Remember for Quick Verification

- $\tan 45^\circ = 1$ and $\cot 45^\circ = 1$ (Extremely common in height & distance and identity problems!).
- $\sin 30^\circ = \cos 60^\circ = 1/2$.
- $\sin 60^\circ = \cos 30^\circ = \sqrt{3}/2$.
- As θ increases from 0° to 90° : $\sin \theta$ increases from 0 to 1, while $\cos \theta$ decreases from 1 to 0.

SOLVED EXAMPLE 2 (Board-Style Angle Equation)

Question: If $\sin(A - B) = 1/2$ and $\cos(A + B) = 1/2$, where $0^\circ < A + B \leq 90^\circ$ and $A > B$, find A and B .

 **Concept Identification:** Comparing values from Trigonometric Table.

 **Step-by-Step Solution:**

1. Since $\sin 30^\circ = 1/2$, we have: $\sin(A - B) = \sin 30^\circ \Rightarrow A - B = 30^\circ$ --- (Eq. 1)
2. Since $\cos 60^\circ = 1/2$, we have: $\cos(A + B) = \cos 60^\circ \Rightarrow A + B = 60^\circ$ --- (Eq. 2)
3. Adding (Eq. 1) and (Eq. 2): $(A - B) + (A + B) = 30^\circ + 60^\circ \Rightarrow 2A = 90^\circ \Rightarrow A = 45^\circ$.
4. Substituting $A = 45^\circ$ in Eq. 2: $45^\circ + B = 60^\circ \Rightarrow B = 15^\circ$.

 **Final Answer:** $A = 45^\circ$ and $B = 15^\circ$.

3. Fundamental Trigonometric Identities & Proofs

An identity is an equation involving trigonometric ratios of an angle, valid for all values of the angle for which the ratios are defined.

THE 3 FUNDAMENTAL IDENTITIES

Primary Identity	Rearranged Form 1	Rearranged Form 2
$\sin^2\theta + \cos^2\theta = 1$	$\sin^2\theta = 1 - \cos^2\theta$	$\cos^2\theta = 1 - \sin^2\theta$
$1 + \tan^2\theta = \sec^2\theta$	$\sec^2\theta - \tan^2\theta = 1$	$\tan^2\theta = \sec^2\theta - 1$
$1 + \cot^2\theta = \operatorname{cosec}^2\theta$	$\operatorname{cosec}^2\theta - \cot^2\theta = 1$	$\cot^2\theta = \operatorname{cosec}^2\theta - 1$

★ **PROOF OF FUNDAMENTAL IDENTITIES (CBSE Exam Presentation)**

Consider right triangle ABC right-angled at B . By Pythagoras Theorem:

$$AB^2 + BC^2 = AC^2 \text{ --- (Eq. 1)}$$

Proof 1: Divide Eq. 1 by AC^2 :

$$(AB/AC)^2 + (BC/AC)^2 = (AC/AC)^2 \Rightarrow (\cos A)^2 + (\sin A)^2 = 1 \Rightarrow \sin^2 A + \cos^2 A = 1 \text{ (Proved)}$$

Proof 2: Divide Eq. 1 by AB^2 :

$$1 + (BC/AB)^2 = (AC/AB)^2 \Rightarrow 1 + (\tan A)^2 = (\sec A)^2 \Rightarrow 1 + \tan^2 A = \sec^2 A \text{ (Proved)}$$

Proof 3: Divide Eq. 1 by BC^2 :

$$(AB/BC)^2 + 1 = (AC/BC)^2 \Rightarrow (\cot A)^2 + 1 = (\operatorname{cosec} A)^2 \Rightarrow 1 + \cot^2 A = \operatorname{cosec}^2 A \text{ (Proved)}$$

TINKU SIR TRICK: The Algebraic Difference of Squares Hack

Identity $\sec^2 \theta - \tan^2 \theta = 1$ can be factored as $(\sec \theta - \tan \theta)(\sec \theta + \tan \theta) = 1$.

$\Rightarrow (\sec \theta + \tan \theta)$ and $(\sec \theta - \tan \theta)$ are **RECIPROCALs** of each other!

If $\sec \theta + \tan \theta = x$, then automatically $\sec \theta - \tan \theta = 1/x$! Same applies to $(\operatorname{cosec} \theta \pm \cot \theta)$.

ONEPATH HACK: 4 Golden Rules to Solve ANY Identity Proof

- 1. Convert Everything to Sin and Cos:** If you get stuck with $\tan$, $\cot$, $\sec$, cosec , rewrite them as $\sin \theta / \cos \theta$, $1 / \cos \theta$, etc.
- 2. Look for Algebraic Formulas:** Use $a^2 - b^2 = (a-b)(a+b)$, $(a \pm b)^2$, $a^3 + b^3 = (a+b)(a^2 - ab + b^2)$.
- 3. Rationalize / Multiply Conjugates:** For terms like $\sqrt{(1 + \sin A) / (1 - \sin A)}$, multiply numerator and denominator inside the root by $(1 + \sin A)$.
- 4. Take LCM of Fractions:** Combine split fractions into a single fraction first.

SOLVED EXAMPLE 3 (Classic 3-Mark Board Identity Proof)

Question: Prove that $\sqrt{[(1 + \sin A) / (1 - \sin A)]} = \sec A + \tan A$.

 **Concept Identification:** Rationalization under square root using $1 - \sin^2 A = \cos^2 A$.

 **Step-by-Step Solution:**

$$\text{LHS} = \sqrt{[(1 + \sin A) / (1 - \sin A)]}$$

1. Multiply numerator and denominator inside the square root by conjugate $(1 + \sin A)$:

$$\text{LHS} = \sqrt{[(1 + \sin A)(1 + \sin A)] / [(1 - \sin A)(1 + \sin A)]}$$

2. Apply $(a - b)(a + b) = a^2 - b^2$ in denominator:

$$\text{LHS} = \sqrt{[(1 + \sin A)^2 / (1 - \sin^2 A)]}$$

3. Substitute identity $1 - \sin^2 A = \cos^2 A$:

$$\text{LHS} = \sqrt{[(1 + \sin A)^2 / \cos^2 A]} = (1 + \sin A) / \cos A$$

4. Split the fraction:

$$\text{LHS} = (1 / \cos A) + (\sin A / \cos A) = \sec A + \tan A = \text{RHS}$$

✓ Hence Proved.

SOLVED EXAMPLE 4 (High Order / HOTS 5-Mark Question)

Question: Prove that $(\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2 = 7 + \tan^2 A + \cot^2 A$.

Step-by-Step Solution:

$$\text{LHS} = (\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2$$

1. Expand both squared binomials using $(a + b)^2 = a^2 + 2ab + b^2$:

$$\text{LHS} = (\sin^2 A + 2 \sin A \operatorname{cosec} A + \operatorname{cosec}^2 A) + (\cos^2 A + 2 \cos A \sec A + \sec^2 A)$$

2. Use reciprocal relations $\sin A \cdot \operatorname{cosec} A = 1$ and $\cos A \cdot \sec A = 1$:

$$\begin{aligned} \text{LHS} &= \sin^2 A + 2(1) + \operatorname{cosec}^2 A + \cos^2 A + 2(1) + \sec^2 A \\ \text{LHS} &= (\sin^2 A + \cos^2 A) + 4 + \operatorname{cosec}^2 A + \sec^2 A \end{aligned}$$

3. Substitute primary identity $\sin^2 A + \cos^2 A = 1$:

$$\text{LHS} = 1 + 4 + \operatorname{cosec}^2 A + \sec^2 A = 5 + \operatorname{cosec}^2 A + \sec^2 A$$

4. Substitute secondary identities $\operatorname{cosec}^2 A = 1 + \cot^2 A$ and $\sec^2 A = 1 + \tan^2 A$:

$$\text{LHS} = 5 + (1 + \cot^2 A) + (1 + \tan^2 A) = 7 + \tan^2 A + \cot^2 A = \text{RHS}$$

✓ Hence Proved.

4. Question Identification Matrix (DEKHO → PEHCHANO → CHUNO)

Question Clue / Given Format	Identified Concept	Best Method / Winning Strategy
Single ratio given (e.g. $\tan \theta = a/b$)	Triangle Ratios	Assume sides as ak, bk , find 3rd side via Pythagoras, then substitute.
Equation in $A \pm B$ with ratio values	Specific Angles Table	Replace value with trigonometric ratio angle (e.g. $1/2 \rightarrow \sin 30^\circ$), solve linear equations.
Identity involving square roots $\sqrt{1 \pm \sin A}$	Conjugate Rationalization	Multiply inside root by numerator's conjugate, use $1 - \sin^2 A = \cos^2 A$.
Complex ratios $\tan, \cot, \sec, \operatorname{cosec}$	Sin / Cos Conversion	Convert all terms to $\sin \theta$ and $\cos \theta$, take common denominators (LCM).
Given $\sec \theta + \tan \theta = k$	Reciprocal Identity	Write $\sec \theta - \tan \theta = 1/k$, then add/subtract equations to isolate $\sec \theta$ or $\tan \theta$.

5. Authentic CBSE Board Past Year Questions (PYQs 2023 - 2026)

VERIFIED CBSE PYQ 2024 (1 Mark MCQ)

Question: If $\tan \theta = 4/3$, then $(\sin \theta + \cos \theta)$ is equal to:

- (A) $7/5$ (B) $1/5$ (C) $5/7$ (D) $3/5$

Solution:

$\tan \theta = P/B = 4/3$. Triplet is (3, 4, 5) $\Rightarrow H = 5$.

$\sin \theta = P/H = 4/5$, $\cos \theta = B/H = 3/5$.

$\sin \theta + \cos \theta = 4/5 + 3/5 = 7/5$.

Correct Option: (A) $7/5$

VERIFIED CBSE PYQ 2023 (3 Marks)

Question: Prove that: $(\sin A / (1 + \cos A)) + ((1 + \cos A) / \sin A) = 2 \operatorname{cosec} A$.

Solution:

1. Take LCM on LHS:

$$\text{LHS} = [\sin^2 A + (1 + \cos A)^2] / [\sin A (1 + \cos A)]$$

2. Expand $(1 + \cos A)^2$:

$$\text{LHS} = [\sin^2 A + 1 + 2 \cos A + \cos^2 A] / [\sin A (1 + \cos A)]$$

3. Group $\sin^2 A + \cos^2 A = 1$:

$$\text{LHS} = [(1 + 1) + 2 \cos A] / [\sin A (1 + \cos A)] = [2 + 2 \cos A] / [\sin A (1 + \cos A)]$$

4. Factor out 2 in numerator:

$$\text{LHS} = [2 (1 + \cos A)] / [\sin A (1 + \cos A)] = 2 / \sin A = 2 \operatorname{cosec} A = \text{RHS.}$$

✓ Hence Proved.

VERIFIED CBSE PYQ 2025 (5 Marks Long Answer)

Question: If $\operatorname{cosec} \theta + \cot \theta = p$, prove that $\cos \theta = (p^2 - 1) / (p^2 + 1)$.

Solution:

1. Given $\operatorname{cosec} \theta + \cot \theta = p$ --- (Eq. 1)

2. Using identity $\operatorname{cosec}^2 \theta - \cot^2 \theta = 1 \Rightarrow (\operatorname{cosec} \theta - \cot \theta)(\operatorname{cosec} \theta + \cot \theta) = 1$:

$$\operatorname{cosec} \theta - \cot \theta = 1/p \text{ --- (Eq. 2)}$$

3. Add (Eq. 1) and (Eq. 2): $2 \operatorname{cosec} \theta = p + 1/p = (p^2 + 1)/p \Rightarrow \operatorname{cosec} \theta = (p^2 + 1)/(2p)$.

4. Subtract (Eq. 2) from (Eq. 1): $2 \cot \theta = p - 1/p = (p^2 - 1) / p \Rightarrow \cot \theta = (p^2 - 1) / (2p)$.

5. Divide $\cot \theta$ by $\operatorname{cosec} \theta$:

$$(\cos \theta / \sin \theta) / (1 / \sin \theta) = [(p^2 - 1) / (2p)] / [(p^2 + 1) / (2p)]$$

6. Simplifying yields: $\cos \theta = (p^2 - 1) / (p^2 + 1)$.

✓ Hence Proved.

CBSE-STYLE / COMPETENCY-BASED PRACTICE QUESTION (Case Study)

Case Scenario: Two radio towers A and B are installed. A engineer uses trigonometric ratios to check angles. If $4 \tan \theta = 3$, evaluate the value of: $(4 \sin \theta - \cos \theta + 1) / (4 \sin \theta + \cos \theta - 1)$.

OnePath Hack Solution: Divide numerator and denominator by $\cos \theta$ to directly substitute $\tan \theta = 3/4$, or build right triangle with $P=3$, $B=4$, $H=5$.

$\sin \theta = 3/5$, $\cos \theta = 4/5$.

Numerator = $4(3/5) - 4/5 + 1 = 12/5 - 4/5 + 5/5 = 13/5$.

Denominator = $4(3/5) + 4/5 - 1 = 12/5 + 4/5 - 5/5 = 11/5$.

Result = $13 / 11$.

6. Common Mistakes & Concept Comparisons

⚠ CRITICAL EXAM MISTAKES & HOW TO AVOID THEM

✗ WRONG APPROACH	✓ CORRECT APPROACH	💡 HOW TO AVOID IT
$\sin(A + B) = \sin A + \sin B$	$\sin(A + B) \neq \sin A + \sin B$	'sin' is NOT a multiplication factor; it is a trigonometric operator!
$\sin^2 \theta + \cos^2 \theta = 1 \Rightarrow \sin \theta + \cos \theta = 1$	$\sqrt{(\sin^2 \theta + \cos^2 \theta)} \neq \sin \theta + \cos \theta$	You cannot take individual square roots across addition! $\sqrt{(a^2 + b^2)} \neq a + b$.
$1 + \tan^2 \theta = \sec^2 \theta \Rightarrow \tan^2 \theta = 1 - \sec^2 \theta$	$\tan^2 \theta = \sec^2 \theta - 1$	Be careful with signs when rearranging quadratic identities!
Writing $(\sin \theta)^2$ as $\sin \theta^2$	Write as $\sin^2 \theta$	$\sin \theta^2$ means sine of angle θ^2 , which is completely different!

7. Complete Visual Chapter Mind Map

TRIGONOMETRY (CLASS 10)

- ✚ 1. TRIGONOMETRIC RATIOS (Right Triangle ABC, $\angle B = 90^\circ$)
 - $\sin \theta = P / H$ | $\operatorname{cosec} \theta = H / P$ (Reciprocals)
 - $\cos \theta = B / H$ | $\sec \theta = H / B$ (Reciprocals)
 - $\tan \theta = P / B$ | $\cot \theta = B / P$ ($\tan \theta = \sin \theta / \cos \theta$)
 - 🔥 Trick: "Pandit Badri Prasad / Har Har Bhole"

- ✚ 2. STANDARD ANGLE VALUES (0° , 30° , 45° , 60° , 90°)
 - $\sin \theta$: 0 | 1/2 | 1/√2 | √3/2 | 1
 - $\cos \theta$: 1 | √3/2 | 1/√2 | 1/2 | 0

tan θ : 0 | $1/\sqrt{3}$ | 1 | $\sqrt{3}$ | ND
 🚀 Hack: Reverse sin row to get cos row!

3. TRIGONOMETRIC IDENTITIES

- Identity 1: $\sin^2\theta + \cos^2\theta = 1 \Rightarrow \sin^2\theta = 1 - \cos^2\theta$
- Identity 2: $1 + \tan^2\theta = \sec^2\theta \Rightarrow \sec^2\theta - \tan^2\theta = 1$
- Identity 3: $1 + \cot^2\theta = \operatorname{cosec}^2\theta \Rightarrow \operatorname{cosec}^2\theta - \cot^2\theta = 1$
- 🔥 Trick: $(\sec \theta + \tan \theta)$ and $(\sec \theta - \tan \theta)$ are reciprocals!

4. PROOF & SOLVING STRATEGY (DEKHO → PECHANNO → CHUNO)

- Convert all terms to Sin & Cos
- Use Algebraic Identities: $(a^2 - b^2)$, $(a + b)^3$
- Rationalize expressions under square root

8. OnePath One-Page Formula & Revision Sheet

⚡ LAST-MINUTE BOARD EXAM FORMULA SHEET

1. Ratios & Reciprocals:

- $\sin \theta = 1 / \operatorname{cosec} \theta$
- $\cos \theta = 1 / \sec \theta$
- $\tan \theta = \sin \theta / \cos \theta = 1 / \cot \theta$
- $\cot \theta = \cos \theta / \sin \theta$

2. Identities:

- $\sin^2\theta + \cos^2\theta = 1$
- $\sec^2\theta - \tan^2\theta = 1$
- $\operatorname{cosec}^2\theta - \cot^2\theta = 1$

3. Key Triplet Shortcuts:

- (3, 4, 5)
- (5, 12, 13)
- (7, 24, 25)
- (8, 15, 17)

4. High-Value Angle Values:

- $\tan 45^\circ = \cot 45^\circ = 1$
- $\sin 30^\circ = \cos 60^\circ = 1/2$
- $\sin 60^\circ = \cos 30^\circ = \sqrt{3}/2$

9. Top 10 Must-Practice Questions for Board Exam

- [MCQ] If $k + 1 = \sec^2\theta(1 + \sin \theta)(1 - \sin \theta)$, find the value of k . (Ans: $k = 0$)
- [MCQ] If $x = a \cos \theta$ and $y = b \sin \theta$, evaluate $b^2x^2 + a^2y^2$. (Ans: a^2b^2)
- [2 Marks] Evaluate: $(5 \cos^2 60^\circ + 4 \sec^2 30^\circ - \tan^2 45^\circ) / (\sin^2 30^\circ + \cos^2 30^\circ)$. (Ans: 67/12)
- [3 Marks] Prove that: $(\sin \theta - 2 \sin^3 \theta) / (2 \cos^3 \theta - \cos \theta) = \tan \theta$.
- [3 Marks] If $\sin \theta + \cos \theta = \sqrt{3}$, prove that $\tan \theta + \cot \theta = 1$.
- [3 Marks] Prove: $(\cos A - \sin A + 1) / (\cos A + \sin A - 1) = \operatorname{cosec} A + \cot A$.
- [5 Marks] If $\tan \theta + \sin \theta = m$ and $\tan \theta - \sin \theta = n$, prove that $m^2 - n^2 = 4\sqrt{mn}$.
- [5 Marks] Prove that $(1 + \cot A + \tan A)(\sin A - \cos A) = (\sec A / \operatorname{cosec}^2 A) - (\operatorname{cosec} A / \sec^2 A)$.
- [Case Study] An airplane flying horizontally at height h observes two points. If ratios involved are $\sec \theta + \tan \theta = 3$, find $\sin \theta$. (Ans: $\sin \theta = 4/5$)
- [HOTS] If $\cos \theta + \sin \theta = \sqrt{2} \cos \theta$, show that $\cos \theta - \sin \theta = \sqrt{2} \sin \theta$.

10. Final Board Exam Revision Checklist

- ☒ All 6 Trigonometric ratio definitions & reciprocals revised
- ☒ Memorized Pythagorean Triplets for fast calculations

- ☑ Table values for 0° , 30° , 45° , 60° , 90° memorized & verified
- ☑ Proofs of 3 primary identities practiced on paper
- ☑ Mastered Sin/Cos conversion rule for identity proofs
- ☑ Solved authentic CBSE PYQs from 2023 to 2026
- ☑ Avoided standard traps ($\sin(A+B) \neq \sin A + \sin B$)

TINKU SIR TRICKS × ONEPATH ACADEMY — Premium Master Notes for CBSE Class 10th Mathematics