

CLASS 10

MATHS

REVISION NOTES

Revision Notes Class 10 Maths Chapter 8 – Introduction to Trigonometry

Part of the Class 10 Maths Chapter 8 cluster: Solutions | Extra Questions (HOTS) | Revision Notes | Formulas Handbook | Class 10 Maths book page. These Class 10 Mathematics Chapter 8 notes are ideal for quick revision just before exams.

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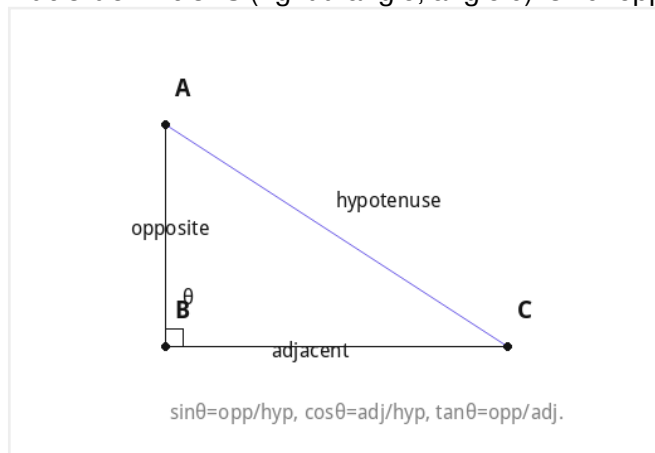
Why This Chapter Matters

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Common Mistakes to Avoid

Class 10 Mathematics Chapter 8 – Solutions and Important Questions

Ratio definitions (right triangle, angle θ): $\sin\theta = \text{opp}/\text{hyp}$, $\cos\theta = \text{adj}/\text{hyp}$, $\tan\theta = \text{opp}/\text{adj} = \sin\theta/\cos\theta$.



Reciprocals: $\text{cosec}\theta = 1/\sin\theta$, $\sec\theta = 1/\cos\theta$, $\cot\theta = 1/\tan\theta = \cos\theta/\sin\theta$.

Standard angle values: $\sin$: 0, $1/2$, $1/\sqrt{2}$, $\sqrt{3}/2$, 1 (for $0^\circ, 30^\circ, 45^\circ, 60^\circ, 90^\circ$); $\cos$ is the reverse order; $\tan$: 0, $1/\sqrt{3}$, 1, $\sqrt{3}$, undefined.

Pythagorean identities: $\sin^2\theta + \cos^2\theta = 1$; $1 + \tan^2\theta = \sec^2\theta$; $1 + \cot^2\theta = \text{cosec}^2\theta$.

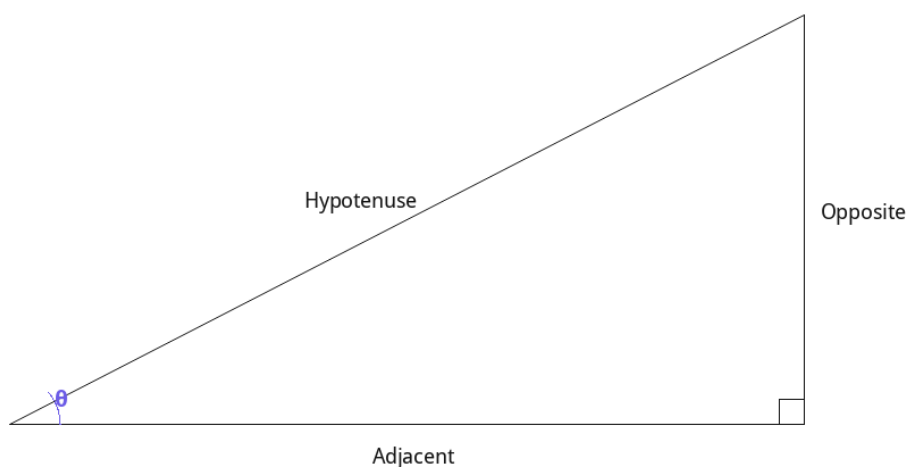
Complementary angle rules ($A+B=90^\circ$): $\sin(90^\circ - \theta) = \cos\theta$, $\cos(90^\circ - \theta) = \sin\theta$, $\tan(90^\circ - \theta) = \cot\theta$, $\cot(90^\circ - \theta) = \tan\theta$, $\sec(90^\circ - \theta) = \text{cosec}\theta$, $\text{cosec}(90^\circ - \theta) = \sec\theta$.

Undefined cases: $\tan\theta$ and $\sec\theta$ undefined at 90° ; $\cot\theta$ and $\text{cosec}\theta$ undefined at 0° .

Behaviour $0^\circ \rightarrow 90^\circ$: $\sin\theta$ and $\tan\theta$ increase; $\cos\theta$ and $\cot\theta$ decrease; $\sec\theta$ increases, $\text{cosec}\theta$ decreases.

Common trap: trigonometric ratios are never treated as ordinary algebraic products — “ $\sin A$ ” is one symbol, not $\sin \times A$.

Part of the Class 10 Maths Chapter 8 cluster: [Solutions](#) | [Extra Questions \(HOTS\)](#) | [Revision Notes](#) | [Formulas Handbook](#) | [Class 10 Maths book page](#). These Class 10 Mathematics Chapter 8 notes are ideal for quick revision just before exams.



$\sin\theta = \text{Opposite/Hypotenuse}$, $\cos\theta = \text{Adjacent/Hypotenuse}$, $\tan\theta = \text{Opposite/Adjacent}$.

Reference figure — trigonometric ratios of a right triangle

Why This Chapter Matters

Introduction to Trigonometry is one of the standard chapters in the CBSE/NCERT Class 10 Maths syllabus and questions from it appear regularly in board exams, in formats ranging from 1-mark objective questions to longer 3-5 mark descriptive or numerical questions. Because the concepts here often build on earlier chapters (and feed into later ones), a solid grip on this chapter also makes the rest of the Maths syllabus easier to follow.

How to Use These Notes

These revision notes are meant for quick recall in the last few days before an exam or unit test — they are not a substitute for first reading the full chapter and working through examples in the NCERT textbook. A good routine is: read the chapter once, solve the in-text and end-of-chapter questions using the linked Solutions, then come back to this page a day or two before the exam to refresh the key definitions and formulas without re-reading the whole chapter.

Common Mistakes to Avoid

Students often mix up which side is “opposite” and which is “adjacent” when the angle changes position in a right triangle — always identify the angle first, then label the sides relative to it. Another frequent error is forgetting that trigonometric ratios are defined only for right-angled triangles, and applying formulas meant for angles between 0° and 90° to obtuse angles without adjustment. Practising with a variety of triangle orientations, not just the standard textbook diagram, builds the flexibility needed for exam questions.

Class 10 Mathematics Chapter 8 – Solutions and Important Questions

Need full answers or more practice? See the [Class 10 Mathematics Chapter 8 Solutions](#) and [Class 10 Mathematics Chapter 8 Extra Questions](#).

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