

Class 10 Mathematics – Chapter: Applications of Trigonometry

1. Introduction

Applications of trigonometry involve using trigonometric ratios to find heights, distances, angles, and lengths in various real-world problems.

2. Solving Problems Using Right Triangles

Use \sin , \cos , and \tan to find:

- Height of a building or tree
- Distance between two points

- Angle of elevation and depression

3. Angle of Elevation and Depression

- Angle of elevation: Angle between the horizontal and line of sight when looking upwards.
- Angle of depression: Angle between the horizontal and line of sight when looking downwards.

4. Steps to Solve Application Problems

- Draw a clear diagram.

- Label the known and unknown sides and angles.
- Choose the appropriate trigonometric ratio.
- Set up the equation and solve for the unknown.
- Use calculator if needed.

5. Important Tips for Exams

- Always draw the figure and label it.
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Identify whether the problem involves angle of elevation or depression.

- Write down the chosen formula before calculating.
- Practice different types of application problems.