

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.
-

Identify whether the problem involves angle of elevation or depression.

-

Write down the chosen formula before calculating.

-

Practice different types of application problems.