TRIANGULAR PLANE FUNDAMENTALS

The primary objective of this section is to explore the geometrical properties and relationships of triangles. This includes the study of triangle congruence, similarity, and the application of trigonometric ratios to solve problems involving triangles. The section will also cover the use of vector algebra in triangle geometry, which provides a powerful tool for solving complex problems.

1. **Triangle Congruence**
   - Criteria for congruence (SSS, SAS, ASA, AAS, SSA)
   - CPCTC (Corresponding Parts of Congruent Triangles are Congruent)

2. **Triangle Similarity**
   - AA Similarity, SSS Similarity, SAS Similarity
   - Proportional segments and theorems

3. **Trigonometry**
   - Sine, cosine, and tangent ratios
   - Solving triangles using trigonometric ratios

4. **Vector Algebra**
   - Addition, subtraction, and scalar multiplication of vectors
   - Dot product and cross product
   - Applications in solving triangle problems

5. **Problem-Solving Techniques**
   - Strategies for solving triangle problems
   - Real-world applications of triangle geometry