

Instructional Flow – Unit 3 – Trigonometric Identities

5.1 Fundamental Identities

- reciprocal, quotient, Pythagorean, cofunction, and odd-even
- simplification of trigonometric expressions
- solution of trigonometric equations



5.2 Proving Trigonometric Identities

- proving identities
- confirmation of non-identities



5.3 Sum and Difference Identities

- sine, cosine, and tangent of a sum or difference
- *sums of sinusoids*



5.4 Multiple-Angle Identities

- double-angle
- half-angle
- solution of trigonometric equations



5.5 The Law of Sines

- derivation
- solution of triangles (AAS, ASA, SSA: including the ambiguous case)
- applications



5.6 The Law of Cosines

- derivation
- solution of triangles (SAS, SSS)
- area of a triangle
- applications