

Trigonometric Identities and Applications

Lesson Objectives

Trigonometric Identities Lesson

Identify reciprocal, quotient, and Pythagorean identities

Use the fundamental identities to verify other identities and to simplify trigonometric expressions

Sum and Difference Formulas Lesson

Develop and apply the sum and difference formulas to simplify trigonometric expressions

Use the sum and difference formulas to find exact values of trigonometric expressions

Use the sum and difference formulas to verify trigonometric identities

Double-Angle Formulas Lesson

Develop and apply double-angle formulas to simplify trigonometric expressions, find exact values, and verify trigonometric identities

Law of Sines Lesson

Prove and apply the Law of Sines

Identify conditions necessary for zero, one, or two triangles

Law of Cosines Lesson

Prove and apply the Law of Cosines

Trigonometric Equations Lesson

Solve trigonometric equations and interpret them graphically