Trigonometric Identities and Applications Key Words

Trigonometric Identities Lesson

fundamental identities – basic relationships between the trigonometric functions, including reciprocal, quotient, and Pythagorean identities

Sum and Difference Formulas Lesson

sum and difference formulas – trigonometric identities that relate the sums and differences of two angles with their trigonometric ratios

Double-Angle Formulas Lesson

double-angle formulas – formulas that relate trigonometric functions of an angle θ to trigonometric functions of the angle that is double the original angle measure, or 2θ

half-angle formulas – formulas that relate trigonometric functions of an angle θ to trigonometric functions of the angle that is half of the original angle measure, or θ divided by 2

power-reducing formulas – formulas that relate the square of a trigonometric function of an angle θ to trigonometric functions of the angle that is double the original measure, or 2θ

Law of Sines Lesson

AAS – a triangle whose given measurements are two angles and a non-included side

ambiguous case – when data is given about a triangle that cannot be used to determine a unique triangle

ASA – a triangle whose given measurements are two angles and their included side

Law of Sines – In any triangle, the ratio of the length of a side to the sine of the opposite angle is the same for all three sides of the triangle.

SSA – a triangle whose given measurements are two sides and a non-included angle

Law of Cosines Lesson

Law of Cosines – a trigonometric formula for any triangle that shows the relationship between the cosine of one angle and the lengths of all three sides

Trigonometric Equations Lesson

extraneous solution – a solution of a simplified (or modified) equation that is not a solution of the original equation