

Trigonometric Functions Key Words

Graphs of Trigonometric Functions Lesson

oscillate – to alternate between two extreme values, usually in rhythm or on a set interval

Domain and Range of Trigonometric Functions Lesson

domain of a function – the set of input values for which a function is defined

range of a function – the set of output values for every element of the function's domain

Behavior of Trigonometric Functions Lesson

amplitude – half the distance between the maximum and minimum values of a periodic function

asymptote – a line that gradually approaches the graph of a function as the function extends to infinity

even function – a function in which $f(-x) = f(x)$ for every x in the domain

odd function – a function in which $f(-x) = -f(x)$ for every x in the domain

period – the smallest interval over which the function values repeat

periodic function – a function that recurs or repeats at regular intervals

zero of a function – an input value that produces an output of zero, also known as an x -intercept

Properties of Trigonometric Functions Lesson

frequency – the number of cycles a trigonometric function completes in a specified interval

phase shift – where the graph of a function is translated in the horizontal direction, either left or right

vertical shift – where the graph of a function is translated in the vertical direction, either up or down

Graphing Transformations of Trigonometric Functions Lesson

midline – the horizontal axis about which the graph of a trigonometric function oscillates; the line between the maximum and minimum values

parent function – the simplest function that satisfies the definition of an entire family of functions

Writing Equations of Trigonometric Functions Lesson

mathematical model – a mathematical tool, such as an equation or graph, used to represent a real-world system, event, or behavior

Inverse Trigonometric Functions Lesson

domain restriction – limiting a function's domain for the purpose of making its inverse a function

horizontal line test – a visual way to determine whether the inverse of a function is also a function using horizontal lines through the graph

inverse trigonometric function – the inverse of a trigonometric function whose domain has been restricted

invertible – having an inverse that is also a function

vertical line test – a visual way to determine whether a relation is a function using vertical lines through the graph

Composition of Trigonometric Functions Lesson

composition of functions – an operation between functions in which a function output becomes the input of another function

Applications of Trigonometric Functions Lesson

constructive interference – the production of a larger resultant wave from the algebraic sum of two waves with the same phase and wavelength

destructive interference – the production of a smaller resultant wave from the algebraic sum of two waves with the same phase and wavelength

resultant wave – the wave that is produced from the algebraic sum of two waves