



# Trigonometric Equations

Section 1 – Trigonometric Functions & Radians

Section 2 – Exact Values & The CAST Diagram

Section 3 – Solving Basic Trigonometric Equations

Section 4 – Solving Trigonometric Equations Involving Identities

Section 5 – Solving Equations with Reciprocal Trigonometric Functions

## Section 1 – Trigonometric Functions & Radians

The Unit Circle Definitions of the Trig Functions

The Graph of the Sine Function

The Graph of the Cosine Function

The Graph of the Tangent Function

The Secant Function

The Cosecant Function

The Cotangent Function

Starting Radians

Using Radians

## Section 2 – Exact Values & The CAST Diagram

Trigonometric Exact Values for Common Angles

Trigonometric Values for Multiples of Common Angles

Trigonometric Values for Reciprocal Functions

The CAST Diagram in Degrees

The CAST Diagram in Radians

## Section 3 – Solving Basic Trigonometric Equations

Solving Trigonometric Equations Using a Calculator in Degrees

Solving Trigonometric Equations Using a Calculator in Radians

Solving Trigonometric Equations Using Exact Values in Degrees

Solving Trigonometric Equations Using Exact Values in Radians



## **Section 4 - Solving Trigonometric Equations Involving Identities**

Trigonometric Equations with Double Angles Only  
Trigonometric Equations with Double and Single Angles  
Trigonometric Equations with Phase Shifts

## **Section 5 - Equations with Reciprocal Trigonometric Functions**

Trigonometric Equations with Secant, Cosecant, or Cotangent in Degrees  
Trigonometric Equations with Secant, Cosecant, or Cotangent in Radians