

Trigonometry

Introduction

Trigonometry is a branch of mathematics that deals with the study of angles and their relationships with sides of triangles. It has wide applications in fields such as engineering, physics, astronomy, and many others.

Topics in Trigonometry:

✚ Basic concepts of trigonometry

✚ Trigonometric functions

✚ Trigonometric identities

✚ Inverse trigonometric functions

✚ Applications of trigonometry

✚ Solving trigonometric equations

Basic Concepts of Trigonometry:

a. Angles: An angle is formed when two lines or rays meet at a point. The measure of an angle is usually expressed in degrees or radians. A degree is $1/360$ th of a circle, and a radian is the angle subtended at the center of a circle by an arc equal in length to the radius of the circle.

b. Right triangles: A right triangle is a triangle in which one of the angles is a right angle (90 degrees). The side opposite the right angle is called the hypotenuse, and the other two sides are called the legs.