

Introduction to Trigonometry with Applications



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Objective

- Introduce Trigonometry
- Apply Concepts to Analyze Engineering Problems



What is Trigonometry?


- Trigonometry => Greek
- Τρι-γωνια-μετρω => Three – Angles – Measure

**Measure with three angles**

- So, trigonometry helps us to measure or analyze using three angles or
- by forming triangles (three angles) with three connected sides



Triangle Types

- Different types of triangles
 - General: unequal sides & unequal angles
 - Equilateral: all sides & all angles are equal $\frac{180^\circ}{3} = 60^\circ$
 - Isosceles: two sides equal & two angles equal
 - Right angle: one angle 90° 
 - Sum of angles of a triangle: 180°



EXERCISE Triangle Types and Shapes

- Equilateral
- Isosceles
- General
- Right angle

