Trigonometric Ratios

Trigonometry

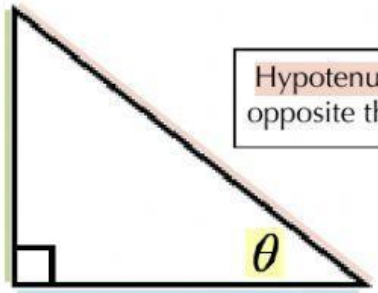
_____ is the study of the properties of triangles, trigonometric functions, and their applications

Only works for _____ triangles

The three most common trigonometric ratios are _____ , _____ , and _____

Trigonometric ratios are used to find the missing _____ or _____ of a right triangle.

Parts of a right triangle



Opposite: the side opposite the angle

Hypotenuse: the side opposite the right angle

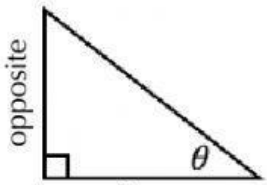
Adjacent: the side next to the angle

θ is pronounced "theta"

Trigonometric Ratios

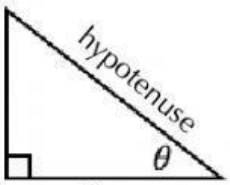
TOA

$$tan(\theta) = \frac{opposite}{adjacent}$$



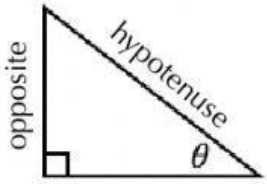
CAH

$$cos(\theta) = \frac{adjacent}{hypotenuse}$$



SOH

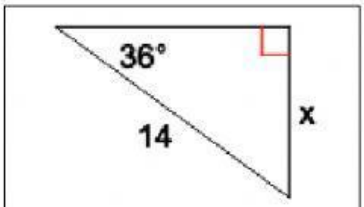
$$sin(\theta) = \frac{opposite}{hypotenuse}$$

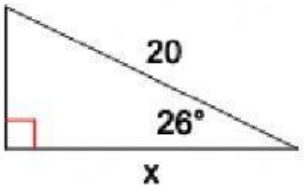


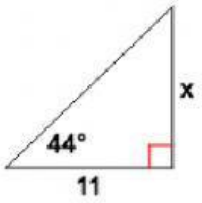
Trigonometric Ratios

Examples:

Finding a missing **side**







Finding a missing **angle**