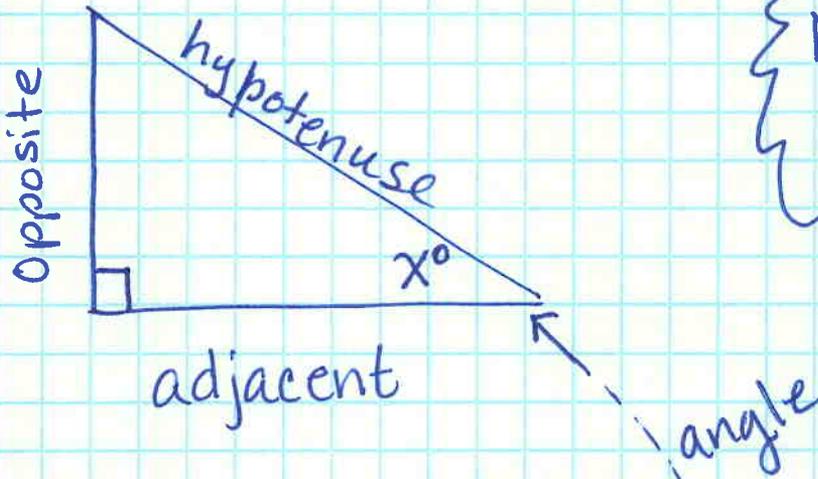


Right Triangle Trigonometry

12.1 Sine, Cosine, Tangent



MUST be a
RIGHT TRIANGLE!

Trigonometric Ratios

"sine"

$$\sin x^\circ = \frac{\text{opposite side}}{\text{hypotenuse}}$$

"cosine"

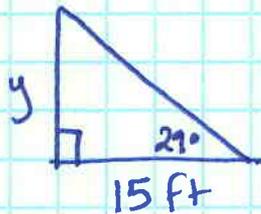
$$\cos x^\circ = \frac{\text{adjacent side}}{\text{hypotenuse}}$$

"tangent"

$$\tan x^\circ = \frac{\text{opposite side}}{\text{adjacent side}}$$

SOH CAH TAA
n p y s d y a p d
n p y s d y a p d

Ex. 1



have: angle, opp., adj $\tan = \frac{O}{A}$
use: tangent

$$(15) \tan 29^\circ = \frac{y}{15} \quad (15)$$

$$15 \tan 29^\circ = y$$

$$y = 8.3 \text{ feet}$$