

ch 8 when to use trigonometry

I What is it?

A. way to solve for parts of a Right Triangle

B. The word of glory

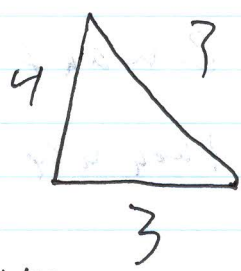
Soh CAH TOA

S in is Cosine is Tangent is
 O pp. over Adjacent over O pp. over
 H yp. H yp. Adj.

II when to use it

If you have... 2 sides

& want... a side



then use... Pythagorean Thm

$$a^2 + b^2 = c^2$$

If you have a side & an angle

& want 30-60-90 or 45, 45, 90
a side

then use... Special Triangles

30 → x	45 → x
60 → x√3	45 → x
90 → 2x	90 → x√2

If you have ... 2 sides
& want ... an angle

then use ... Trig

SOH

CAH

$$\sin(\text{angle}) = \frac{\text{OPP}}{\text{HYP}}$$

$$\cos(\text{angle}) = \frac{\text{ADJ}}{\text{HYP}}$$

TOA

$$\tan(\text{angle}) = \frac{\text{OPP}}{\text{ADJ}}$$

If you have ... a side & an angle

& want

a side

then use

Trig