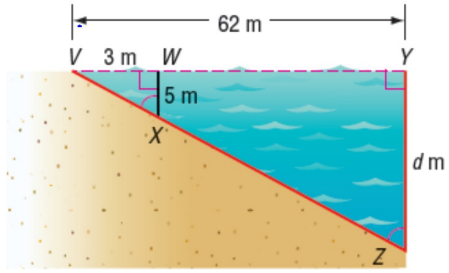
Indirect Measurement.

Finding a distance that is difficult to physically measure by using similar triangles

Δ's are Similar by AA Sim. Post.

LAKES How deep is the water 62 meters from the shore?

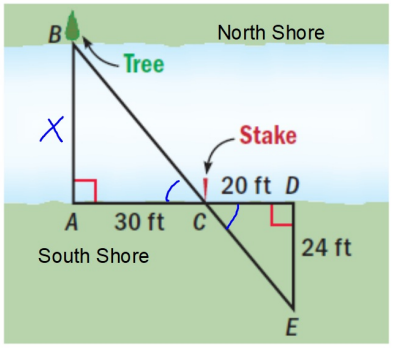


$\frac{3}{62} = \frac{5}{d}$

$d = 103.33$ m

How far is it from Pt A on the South Shore to Pt. B on the North Shore?

Δ's are similar by AA Sim. Post.

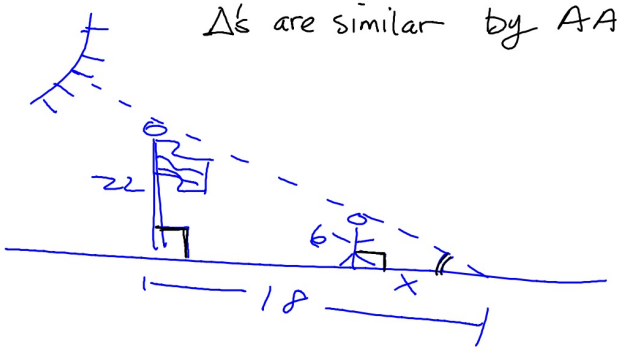


$\frac{30}{20} = \frac{X}{24}$

$X = 36$ ft

A 22 foot tall flagpole casts an 18 foot long shadow. How long would the shadow of a 6 foot tall person be?

Δ's are similar by AA - Sim. Post.



$\frac{22}{6} = \frac{18}{x}$

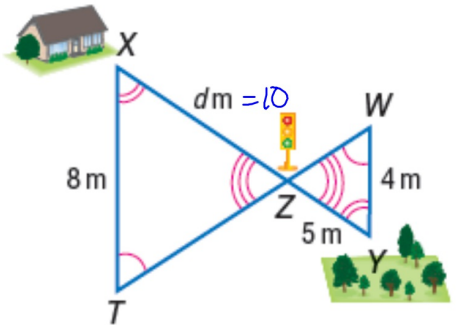
$x = 4.91$ ft

WALKING Find the distance from the park to the house.

Δ's are similar by AA Sim. Post

$\frac{d}{5} = \frac{8}{4}$

$d = 10$



TOTAL DISTANCE = XZ + ZY = 10 + 5

= 15m

Hwk #12

Sec 7-3

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Problems 4-6, 16-19, 28