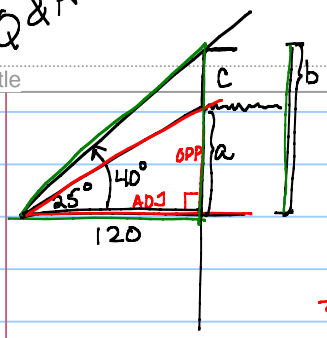
HW Q&A

Note Title 3/11/2015

7.



c = how much taller will tower be?

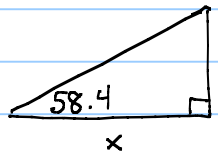
$\tan 25 = \frac{a}{120} \Rightarrow 120(\tan 25) = a$

$55.96 \approx a$

$\tan 40 = \frac{b}{120} \rightarrow 120 \cdot \tan 40 = b \rightarrow b \approx 100.69$

$b - a = c \rightarrow 100.69 - 55.96 \approx 44.73 m$

20.



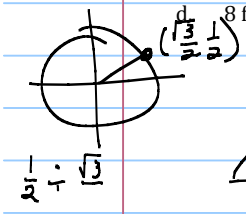
$x \cdot \tan 58.4 = \frac{180}{x} \cdot x$

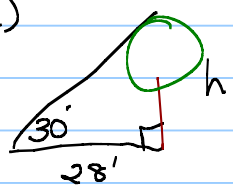
$\frac{x \cdot \tan 58.4}{\tan 58.4} = \frac{180}{\tan 58.4}$

$x = 180 / \tan(58.4) \approx 110.74 in$

3. The angle of elevation of the top of a tree is 30° from a point 28 ft away from the foot of the tree. Find the height of the tree rounded to the nearest feet.

a. 23 ft
b. 10 ft
c. 16 ft
d. 8 ft





$\tan 30^\circ = \frac{h}{28}$

$28 \cdot \sqrt{3}/3 = h \approx 16.17$

NEW PACKET

Intro Trig Worksheet

① $\sin 40^\circ$ sin(40 .6427876097 ≈ 0.64

② $\tan x = \frac{5}{7.5}$

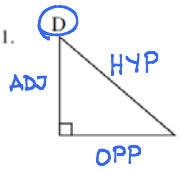
If ∠ is unknown then arc function

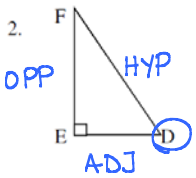
$x = \tan^{-1}(5/7.5)$

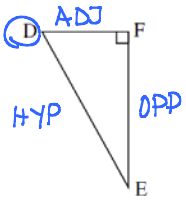
tan⁻¹(5/7.5) 33.69006753

$x \approx 33.70^\circ$

The three sides of the triangles are referred to as Hypotenuse (H), Adjacent (A), and Opposite (O). Label each side of each triangle using angle D as your reference.

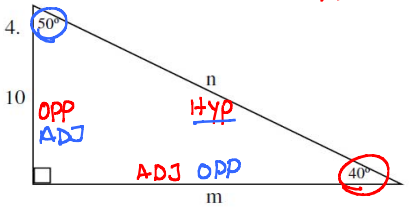
1. 

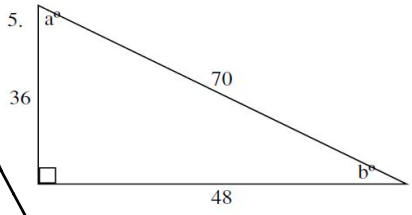
2. 

3. 

3 sinθ, cosθ, & tanθ

Use the triangles below to write all ~~4~~ trig equation from the two acute angles.

4. 

5. 

$\sin 40^\circ = \frac{O}{H} = \frac{10}{n}$ $\sin 50 = \frac{m}{n}$

$\cos 40^\circ = \frac{m}{n}$ $\cos 50 = \frac{10}{n}$

$\tan 40^\circ = \frac{10}{m}$ $\tan 50 = \frac{m}{10}$