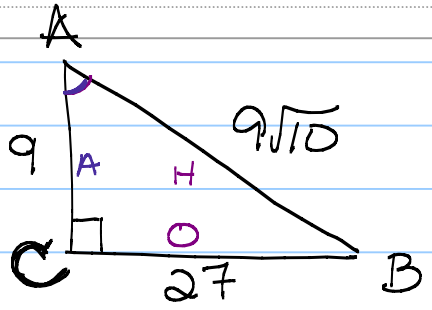
Note Title 1/19/2016

Review

SOH
CAH
TOA



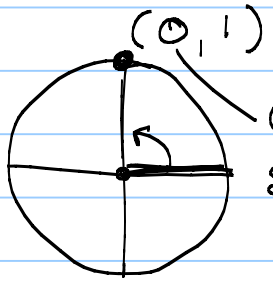
$9\left(1, 3\frac{\sqrt{10}}{\uparrow}\right)$

$\sqrt{1^2+3^2} = 10$

$\sin A = \frac{3}{9\sqrt{10}} \cdot \frac{\sqrt{10}}{\sqrt{10}} = \frac{3\sqrt{10}}{10}$ $\quad \sin B = \sqrt{10}/10$

$\cos A = \frac{1}{9\sqrt{10}} \cdot \frac{\sqrt{10}}{\sqrt{10}} = \sqrt{10}/10$ $\quad \cos B = 3\sqrt{10}/10$

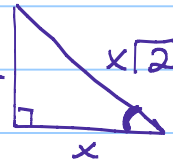
$\tan A = \frac{27}{9} = 3 \longleftrightarrow \tan B = 1/3$



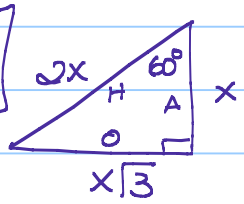
$\cos 90° = 0$

$\sin 90° = 1$

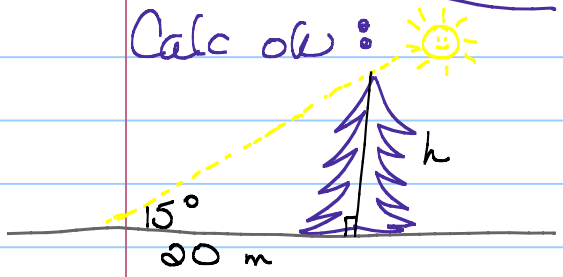
Find $\cos 45° = \frac{x}{x\sqrt{2}} = \boxed{\frac{\sqrt{2}}{2}}$

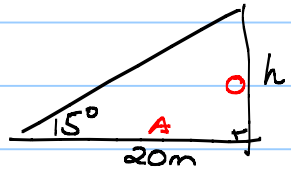


Find $\tan 60° = \frac{x\sqrt{3}}{x} = \boxed{\sqrt{3}}$



Calc ow:

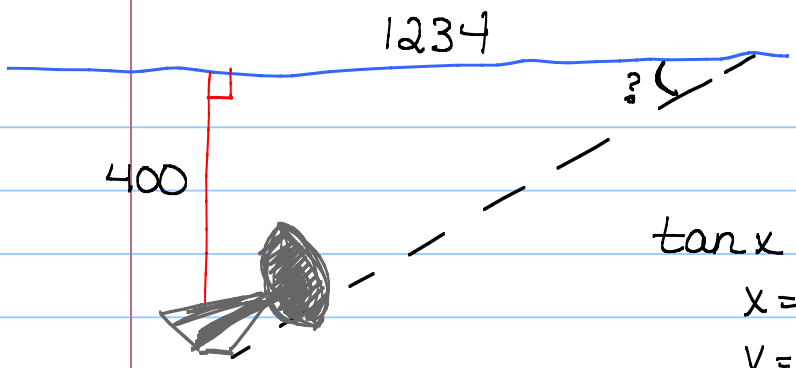




$\tan 15° = \frac{h}{20}$

$20(\tan 15) = h$

$5.36\text{ m} = h$

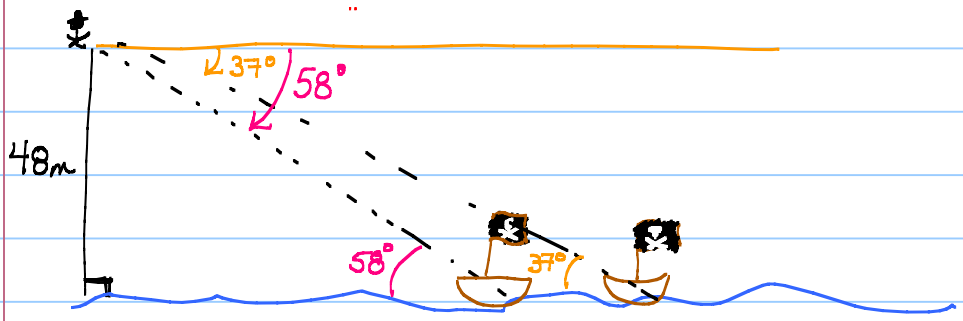


$\tan x = \frac{400}{1234}$

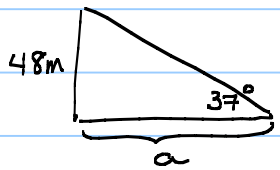
$x = \arctan(400/1234)$

$x = \tan^{-1}(400/1234)$

$x = 17.96°$



37° & 58°



$\tan 37° = \frac{48}{a}$

Homework: Complete the ASN for 10.1 & 10.2

Finish the problem: Dora the Explorer stood on a cliff 48 m above the sea, and saw two ships. The angles of depression to the ships were 37 and 58 degrees. Find -- to the nearest foot -- the distance between the ships. Draw a diagram. Show all work.