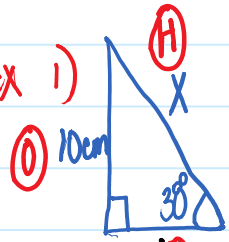
U6L4 Finding Angles Using SOH CAH TOA

May-11-15 10:20 AM

May 11, 2015

A Review SOH CAH TOA

ex 1)



$\sin 38° = \frac{O}{H}$

$\sin 38 = \frac{10}{X}$

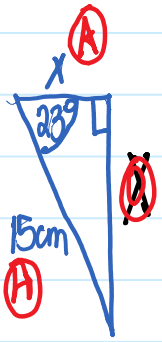
$X(\sin 38) = 10(1)$

$\frac{X(\sin 38)}{\sin 38} = \frac{10(1)}{\sin 38}$

$X = \frac{10}{\sin 38}$

$X = 16.24\text{cm}$ ✓

2)



$\cos 23° = \frac{A}{H}$

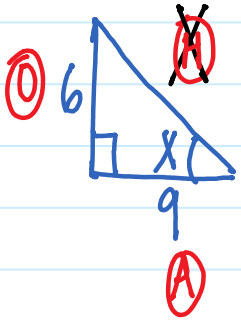
$\cos 23 = \frac{X}{15}$

$X = 15(\cos 23)$

$X = 13.81\text{cm}$ ✓

B Now... Calculate Angle if 2 sides are given

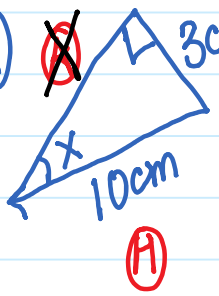
ex1)



TOA $\tan X° = \frac{O}{A}$

$\tan X° = \frac{6}{9}$

ex 2)



$\sin X = \frac{O}{H}$

$\sin X = \frac{3}{10}$

$X = \sin^{-1}\left(\frac{3}{10}\right)$

Remember:
$\tan 34° = 0.67$

$\tan X° = \frac{6}{9}$

$\tan 37 = 0.61$ $\tan \lambda = \frac{6}{9}$

Now to find angle, press 2nd func. then 6/9

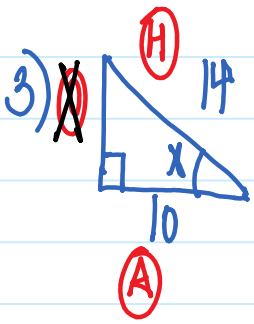
$X = \tan^{-1}\left(\frac{6}{9}\right)$

$X = 33.69°$

$\boxed{X = 34°}$ ✓

w/

$\boxed{X = 17°}$ ✓

3) 

$\cos X = \frac{A}{H}$

$\cos X = \frac{10}{14}$

$X = \cos^{-1}\left(\frac{10}{14}\right)$

$\boxed{X = 44°}$ ✓

U6L4 L2 wkst #1, 5(B) L3wkst #1, 1 F B /10 = %