

Solving for ANGLES using SOH CAH TOA

How would you solve this?

$$\sin^{-1}(\sin(X)) = \sin^{-1}(0.5)$$

("sin of X")

$$X = \sin^{-1}(0.5) = 30^\circ$$

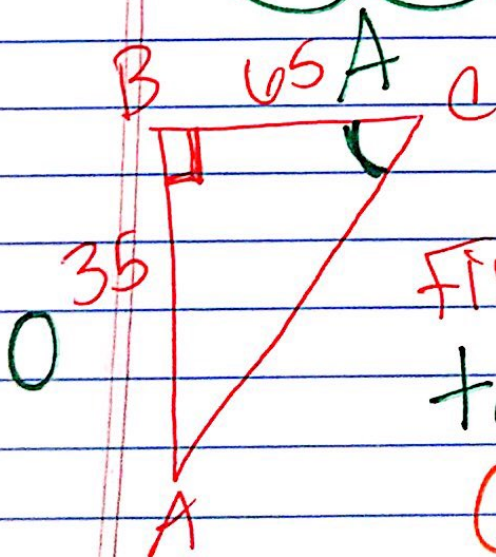
* Can't do \sin^{-1} or \cos^{-1} of something greater than 1.

\sin^{-1} = sine inverse
Not $\frac{1}{\sin}$

ex) $\frac{2 \sin(X)}{2} = \frac{1/3}{2}$
 $\sin(X) = \frac{1}{6}$

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

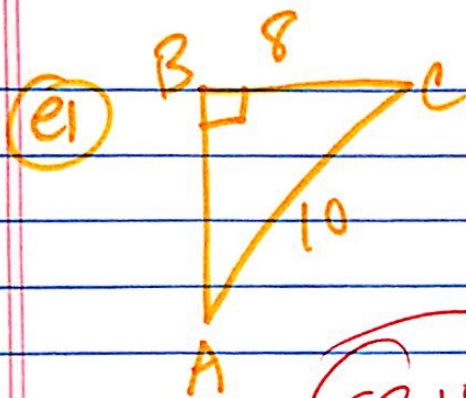
$$X = 9.59^\circ$$



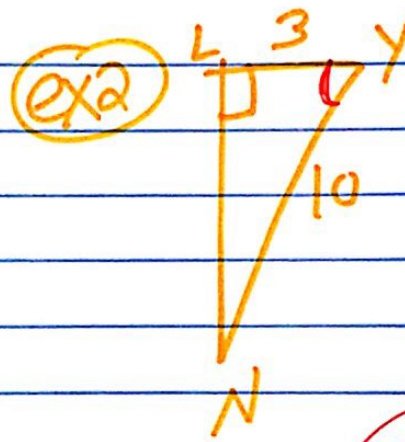
Find C:

$$\tan(C) = \frac{35}{65}$$

$$C = \tan^{-1}\left(\frac{35}{65}\right) = 28.3^\circ$$



find A: 53.1°
 $\sin A = \frac{8}{10}$



find Y: 72.5°
 $\cos(Y) = \frac{3}{10}$

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