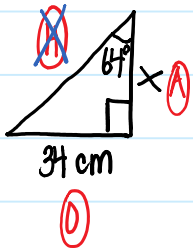
# U6L3 Sine and Cosine Ratio

May-06-15 8:46 AM

## (A) Review

Try 1)




- ✓ label O, H, A
- ✓ choose a ratio {TOA}
- ✓ $\tan \boxed{64} = \frac{O}{A}$
- solve for x.

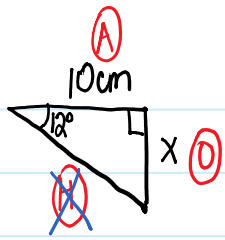
$\frac{\tan 64}{1} = \frac{34}{x}$

$\frac{x \cdot \cancel{\tan 64}}{\cancel{\tan 64}} = \frac{34}{\tan 64}$

$x = \frac{34}{\tan 64}$

$\boxed{x = 16.58}$ ✓

2)




$\frac{\tan 12°}{1} = \frac{x}{10}$

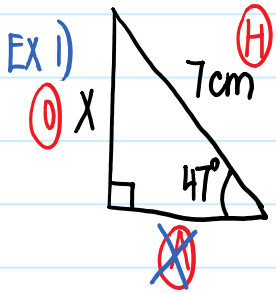
$x = 10 \cdot \tan 12°$

$\boxed{x = 2.13}$ ✓

## (B) Sine & Cosine Ratios → find side x

SOH or CAH

EX 1)



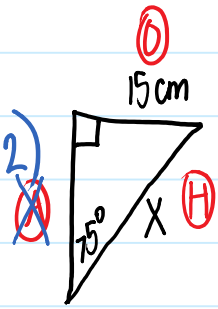

{SOH} $\sin \boxed{47} = \frac{O}{H}$

$\frac{\sin 47}{1} = \frac{x}{7}$

$x = 7 \cdot \sin 47$

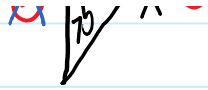
$\boxed{x = 5.12\text{ cm}}$ ✓

EX2)




{SOH} $\sin \boxed{75°} = \frac{O}{H}$

$\frac{\sin 75}{} = \frac{15}{}$



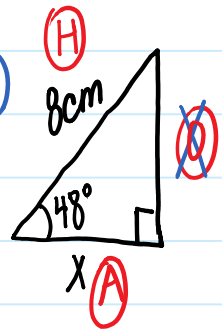

$$\frac{\sin 75}{1} = \frac{15}{X}$$

$$\frac{X \cdot \cancel{\sin 75}}{\cancel{\sin 75}} = \frac{15}{\sin 75}$$

$$X = \frac{15}{\sin 75}$$

$$\boxed{X = 15.53\text{cm}}$$ ✓

EX 3)




SOH
CAH
TOA

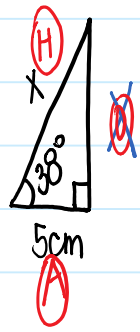
$$\cos \boxed{48°} = \frac{A}{H}$$

$$\frac{\cos 48°}{1} = \frac{X}{8}$$

$$X = 8 \cdot \cos 48°$$

$$\boxed{X = 5.35\text{cm}}$$ ✓

EX 4)




SOH
CAH
TOA

$$\cos \boxed{38} = \frac{A}{H}$$

$$\frac{\cos 38}{1} = \frac{5}{X}$$

$$\frac{X \cdot \cancel{\cos 38}}{\cancel{\cos 38}} = \frac{5}{\cos 38}$$

$$X = \frac{5}{\cos 38}$$

$$\boxed{X = 6.35\text{cm}}$$ ✓

Assignment: U6L3 WKST #2-4 (A)(C) (FRONT), #2-4 (A)(C) (BACK)