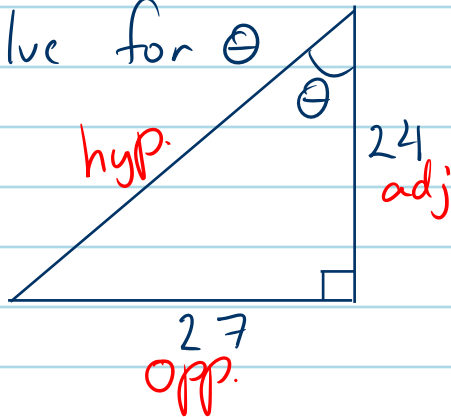


Unit 6 Day 5+6  
6-4 Soh Cah Toa

June.3rd, 2016

1) Solve for  $\theta$



$$\tan \theta = \frac{o}{a} = \frac{27}{24}$$

$$\tan^{-1}(\tan \theta) = \tan^{-1}\left(\frac{9}{8}\right)$$

$$\theta = \tan^{-1}\left(\frac{9}{8}\right)$$

$$\theta \approx 48.3^\circ$$

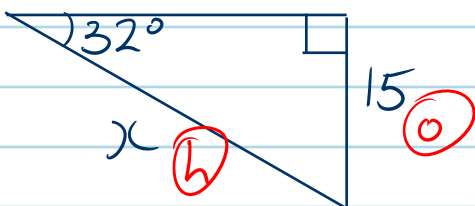
3 Primary Trigonometric Ratios:

tangent:  $\tan \theta = \frac{\text{opp}}{\text{adj}}$ , sine:  $\sin \theta = \frac{\text{opp}}{\text{hyp}}$ , cosine:  $\cos \theta = \frac{\text{adj}}{\text{hyp}}$

Soh Cah Toa  
i p y o d y a o d  
h p p s i p h p j

$$\sin \theta = \frac{o}{h}, \cos \theta = \frac{a}{h}, \tan \theta = \frac{o}{a}$$

2) Solve for  $x$



$$\sin 32^\circ = \frac{o}{h} = \frac{15}{x}$$

$$x \sin 32^\circ = \frac{15}{x} x$$

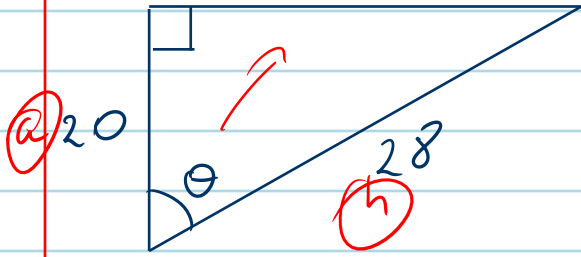
$$\frac{x \sin 32^\circ}{\sin 32^\circ} = \frac{15}{\sin 32^\circ}$$

$$x = \frac{15}{\sin 32^\circ}$$

$$\sin 32^\circ = \frac{15}{x}$$

$$x \approx 28.3$$

3) Solve for  $\theta$ :



Soh Cah Toa

$$\cos \theta = \frac{a}{h} = \frac{20}{28}$$

$$\cos^{-1}(\cos \theta) = \cos^{-1}\left(\frac{20}{28}\right)$$

$$\theta = \cos^{-1}\left(\frac{5}{7}\right)$$

$$\theta \approx 44.4^\circ$$

Practice Day 5 + 6 odds