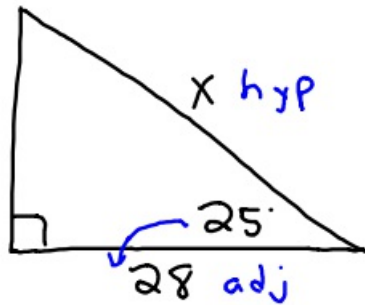


2-8-18

Test tomorrow

①



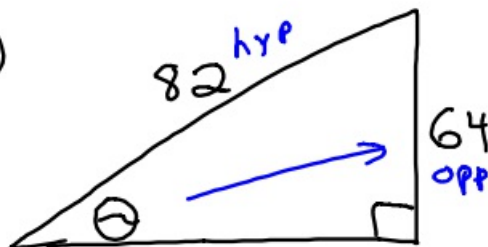
SOH
CAH
TOA

$$\frac{\cos 25^\circ}{1} = \frac{28}{x}$$

$$\frac{x \cdot \cancel{\cos 25^\circ}}{\cancel{\cos 25^\circ}} = \frac{28}{\cos 25^\circ}$$

$$x \approx 30.9$$

②



$$\sin^{-1} \sin \theta = \sin^{-1} \frac{64}{82}$$

$$\theta \approx 51.3^\circ$$

③

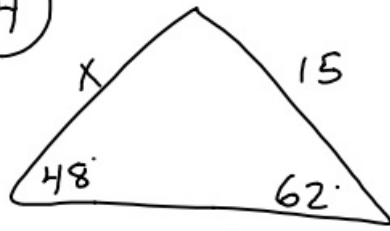
$$2 \cdot \sin \theta = \frac{1}{2}$$

$$\sin^{-1} \sin \theta = \sin^{-1} \frac{1}{2}$$

$$\theta = 30^\circ$$

Find θ

④

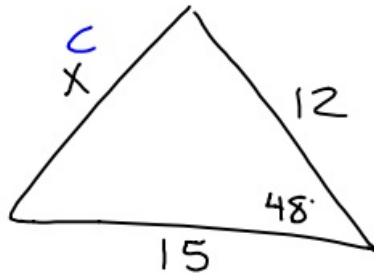


$$\frac{\sin 48^\circ}{15} = \frac{\sin 62^\circ}{X}$$

$$\frac{X \cdot \sin 48^\circ}{\sin 48^\circ} = \frac{15 \cdot \sin 62^\circ}{\sin 48^\circ}$$

$$X \approx 17.8$$

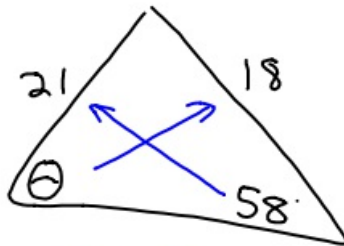
⑤



$$X^2 = 15^2 + 12^2 - 2 \cdot 15 \cdot 12 \cdot \cos 48^\circ$$

$$X \approx 11.3$$

⑥

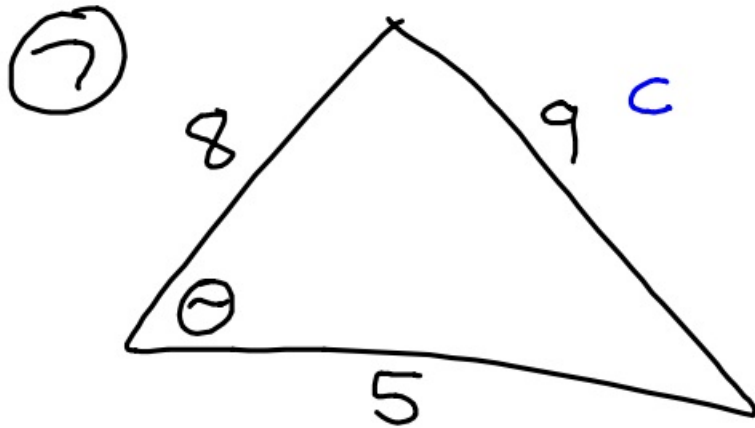


$$\frac{\sin \theta}{18} = \frac{\sin 58^\circ}{21}$$

$$\frac{21 \cdot \sin \theta}{21} = \frac{18 \cdot \sin 58^\circ}{21}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} 0.72689 \dots$$

$$\theta \approx 46.6^\circ$$



$$9^2 = 5^2 + 8^2 - 2 \cdot 5 \cdot 8 \cdot \cos \theta$$

$$81 = 25 + 64 - 80 \cdot \cos \theta$$

$$81 = 89 - 80 \cdot \cos \theta$$

$$\frac{-8}{-80} = \frac{-80 \cdot \cos \theta}{-80}$$

$$\cos^{-1} \frac{8}{80} = \cos^{-1} \cos \theta$$

$$\theta \approx 84.3^\circ$$

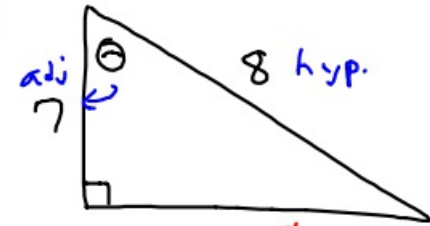
⑧

$$\frac{4 \cdot \cos \theta}{4} = \frac{\tan 32^\circ}{4}$$

$$\cos^{-1} \cos \theta = \cos^{-1} \left(\frac{\tan 32^\circ}{4} \right)$$

$$\theta = 81.0$$

9



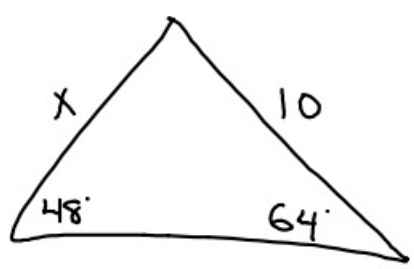
adj 7

8 hyp.

$$\cos^{-1} \cos \theta = \frac{7}{8}$$

$$\theta \approx 29.0$$

10

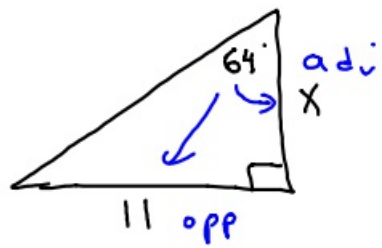


$$\frac{\sin 64^\circ}{X} = \frac{\sin 48^\circ}{10}$$

$$\frac{X \cdot \sin 48^\circ}{\sin 48^\circ} = \frac{10 \cdot \sin 64^\circ}{\sin 48^\circ}$$

$$X \approx 12.1$$

11



64° adj X

11 opp

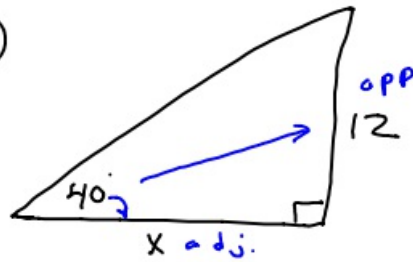
$$\frac{\tan 64^\circ}{1} = \frac{11}{X}$$

$$\frac{X \cdot \tan 64^\circ}{\tan 64^\circ} = \frac{11}{\tan 64^\circ}$$

$$X \approx 5.4$$

2-8-18 3rd Trig

①



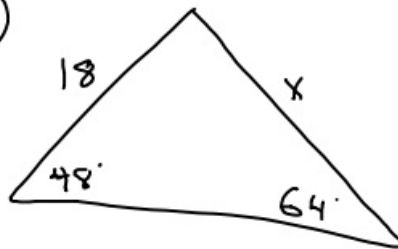
SOH
CAH
TOA

$$\frac{\tan 40^\circ}{1} = \frac{12}{x}$$

$$\frac{x \cdot \tan 40^\circ}{\tan 40^\circ} = \frac{12}{\tan 40^\circ}$$

$$x \approx 14.3$$

②



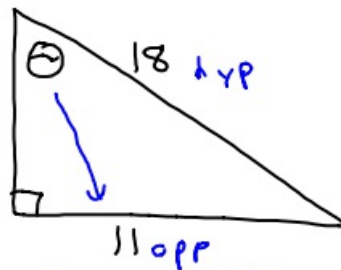
C 1
S 2

$$\frac{\sin 48^\circ}{x} = \frac{\sin 64^\circ}{18}$$

$$\frac{x \cdot \sin 64^\circ}{\cancel{\sin 64^\circ}} = \frac{18 \cdot \sin 48^\circ}{\cancel{\sin 64^\circ}}$$

$$x \approx 14.9$$

③

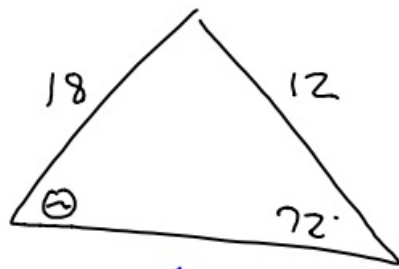


SOH
CAH
TOA

$$\sin^{-1} \sin \theta = \sin^{-1} \frac{11}{18}$$

$$\theta \approx 37.7^\circ$$

④



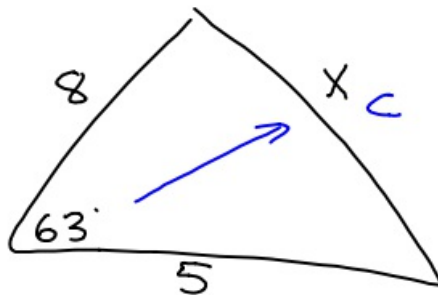
$$\frac{\sin \theta}{12} = \frac{\sin 72^\circ}{18}$$

$$\frac{18 \cdot \sin \theta}{18} = \frac{12 \cdot \sin 72^\circ}{18}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} 0.6340 \dots$$

$$\theta \approx 39.3^\circ$$

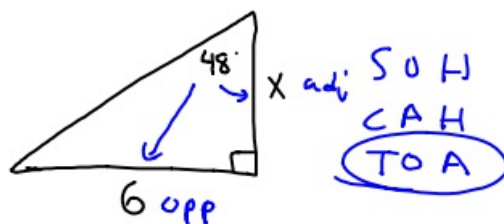
⑤



$$X^2 = 5^2 + 8^2 - 2 \cdot 5 \cdot 8 \cdot \cos 63^\circ$$
$$\sqrt{X^2} \approx \sqrt{52.68} \dots$$

$$X \approx 7.3$$

⑥

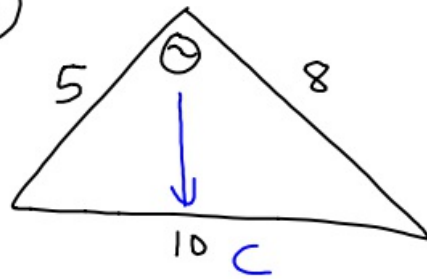


$$\frac{\tan 48^\circ}{1} = \frac{6}{X}$$

$$\frac{X \cdot \tan 48^\circ}{\tan 48^\circ} = \frac{6}{\tan 48^\circ}$$

$$X \approx 5.4$$

7



$$10^2 = 5^2 + 8^2 - 2 \cdot 5 \cdot 8 \cdot \cos \theta$$

$$100 = 25 + 64 - 80 \cdot \cos \theta$$

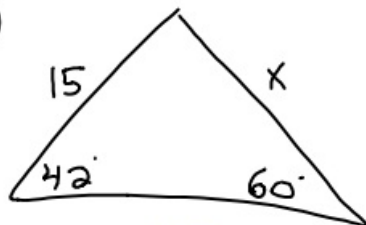
$$100 = \begin{matrix} 89 \\ -89 \end{matrix} - 80 \cdot \cos \theta$$

$$\frac{11}{-80} = \frac{-80 \cdot \cos \theta}{-80}$$

$$\cos^{-1}\left(-\frac{11}{80}\right) = \cos^{-1} \cos \theta$$

$$\theta \approx 97.9^\circ$$

8



$$\frac{\sin 42^\circ}{X} = \frac{\sin 60^\circ}{15}$$

$$\frac{X \cdot \sin 60^\circ}{\cancel{\sin 60^\circ}} = \frac{15 \cdot \sin 42^\circ}{\sin 60^\circ}$$

$$X \approx 11.6$$

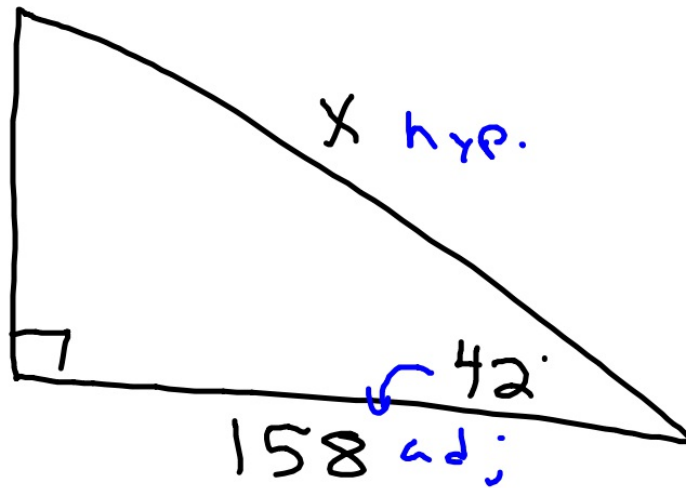
9

$$\frac{14 \cdot \sin \theta}{14} = \frac{\cos 48^\circ}{14}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} 0.477 \dots$$

$$\theta \approx 2.7^\circ$$

10



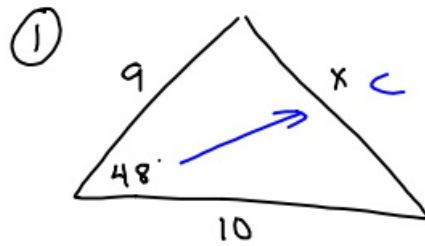
SOH
CAH
TOA

$$\frac{\cos 42^\circ}{1} = \frac{158}{x}$$

$$\frac{x \cdot \cancel{\cos 42^\circ}}{\cancel{\cos 42^\circ}} = \frac{158}{\cos 42^\circ}$$

$$x \approx 212.6$$

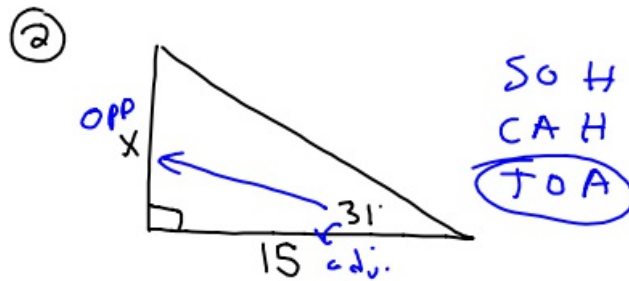
2-8-18 4th Trig



$$x^2 = 10^2 + 9^2 - 2 \cdot 10 \cdot 9 \cdot \cos 48^\circ$$

$$\sqrt{x^2} = \sqrt{60.556 \dots}$$

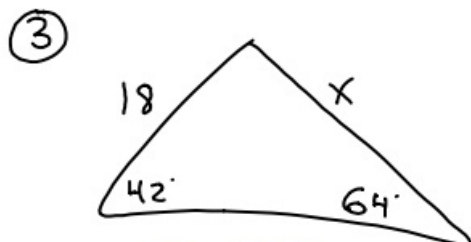
$$x \approx 7.8$$



$$\frac{\tan 31^\circ}{1} = \frac{x}{15}$$

$$x = 15 \cdot \tan 31^\circ$$

$$x \approx 9.0$$

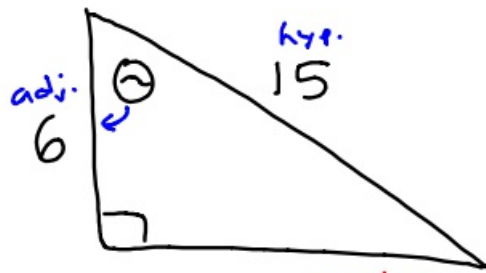


$$\frac{\sin 64^\circ}{18} = \frac{\sin 42^\circ}{x}$$

$$\frac{x \cdot \cancel{\sin 64^\circ}}{\cancel{\sin 64^\circ}} = \frac{18 \cdot \sin 42^\circ}{\sin 64^\circ}$$

$$x \approx 13.4$$

④



$$\cos^{-1} \cos \theta = \frac{6}{15}$$

$$\theta \approx 66.4^\circ$$

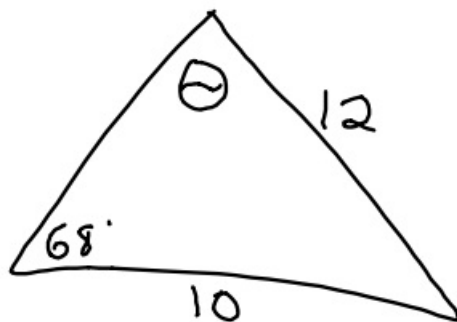
⑤

$$\cancel{8} \cdot \tan \theta = \frac{\cos 42^\circ}{8}$$

$$\tan^{-1} \tan \theta = \tan^{-1} \left(\frac{\cos 42^\circ}{8} \right)$$

$$\theta \approx 5.3^\circ$$

⑥



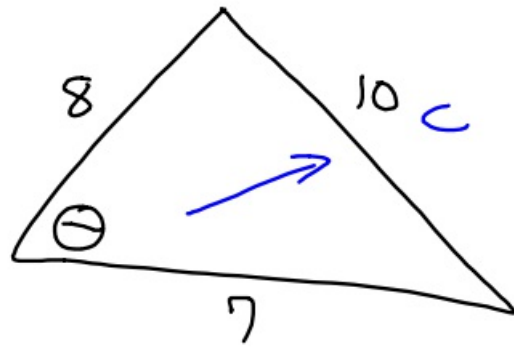
$$\frac{\sin \theta}{10} = \frac{\sin 68^\circ}{12}$$

$$\cancel{12} \cdot \sin \theta = \frac{10 \cdot \sin 68^\circ}{12}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} .7726 \dots$$

$$\theta = 50.6^\circ$$

⑦



$$10^2 = 7^2 + 8^2 - 2 \cdot 7 \cdot 8 \cdot \cos \theta$$

$$100 = 49 + 64 - 112 \cdot \cos \theta$$

$$100 = 113 - 112 \cdot \cos \theta$$

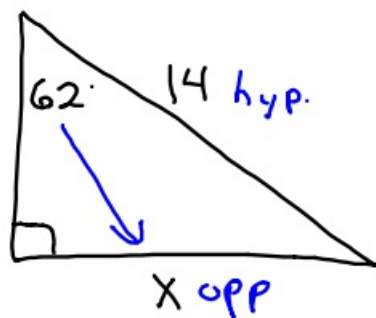
$$\begin{array}{r} -113 \\ -113 \hline \end{array}$$

$$\begin{array}{r} -13 = -112 \cos \theta \\ -112 \quad -112 \hline \end{array}$$

$$\cos^{-1} \frac{13}{112} = \cos^{-1} \cos \theta$$

$$\theta \approx 83.3^\circ$$

⑧



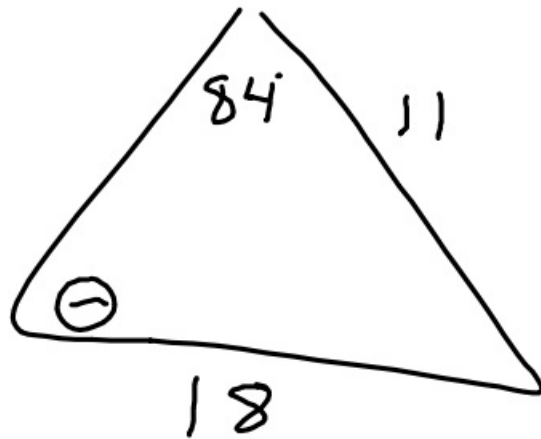
SOH
CAH
TOA

$$\frac{\sin 62^\circ}{1} = \frac{x}{14}$$

$$x = 14 \cdot \sin 62^\circ$$

$$x \approx 12.4$$

9



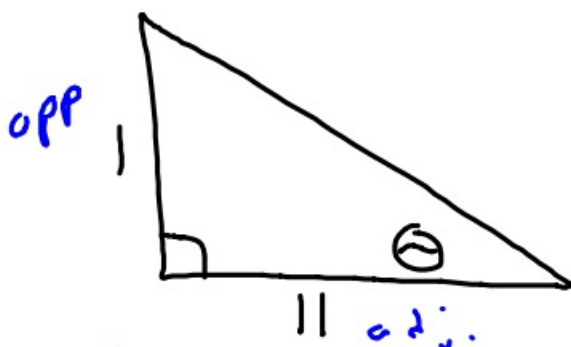
$$\frac{\sin \theta}{11} = \frac{\sin 84^\circ}{18}$$

$$\frac{18 \cdot \sin \theta}{18} = \frac{11 \cdot \sin 84^\circ}{18}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} .6077 \dots$$

$$\theta \approx 37.4^\circ$$

10



$$\tan^{-1} \tan \theta = \tan^{-1} \frac{1}{11}$$

$$\theta \approx 5.2^\circ$$