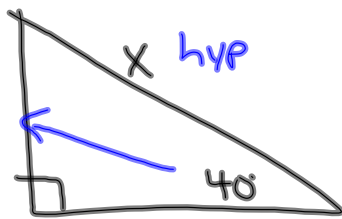


2-28-14
3rd Trig

Ch. 8 Test practice

①
opp
6

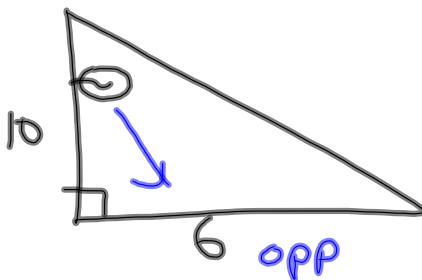


$$\frac{\sin 40}{1} = \frac{6}{x}$$
$$x \cdot \frac{\sin 40}{\sin 40} = \frac{6}{\sin 40}$$

$$x \approx 9.3$$

②

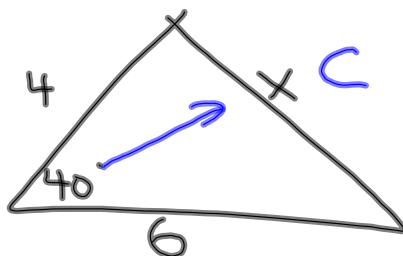
adj
10



$$\cancel{\tan^{-1}} \tan \theta = \frac{\cancel{\tan^{-1}} 6}{10}$$

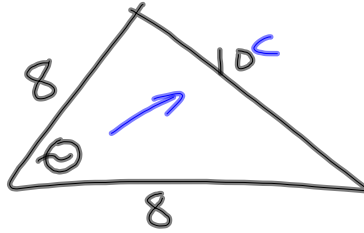
$$\theta \approx 31.0^\circ$$

③



$$c^2 = a^2 + b^2 - 2ab \cos \theta$$
$$\sqrt{x^2} = \sqrt{4^2 + 6^2 - 2 \cdot 4 \cdot 6 \cdot \cos 40}$$

$$x \approx 3.9$$



$$c^2 = a^2 + b^2 - 2ab \cos \theta$$

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

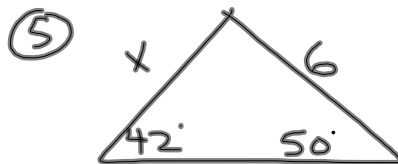
$$100 = 64 + 64 - 128 \cos \theta$$

$$100 = 128 - 128 \cos \theta$$

$$\begin{array}{r} -128 \quad -128 \\ \hline -28 = -128 \cdot \cos \theta \end{array}$$

$$\cos^{-1} \frac{28}{128} = \cos^{-1} \theta$$

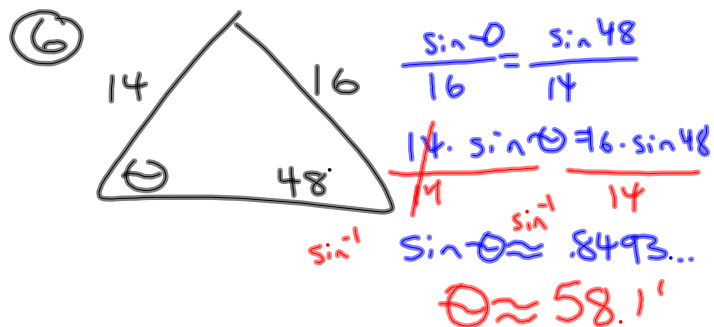
$$77.4^\circ \approx \theta$$



$$\frac{\sin 50^\circ}{x} = \frac{\sin 42^\circ}{6}$$

$$\frac{x \cdot \sin 42^\circ}{\sin 42^\circ} = \frac{6 \cdot \sin 50^\circ}{\sin 42^\circ}$$

$$x \approx 6.9$$



$$\frac{\sin \theta}{16} = \frac{\sin 48^\circ}{14}$$

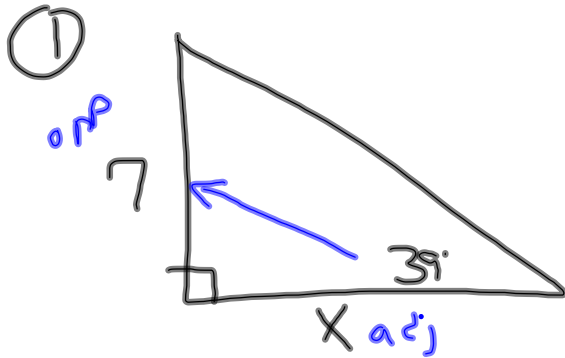
$$\frac{14 \cdot \sin \theta}{14} = \frac{16 \cdot \sin 48^\circ}{14}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} .8493 \dots$$

$$\theta \approx 58.1^\circ$$

228-14

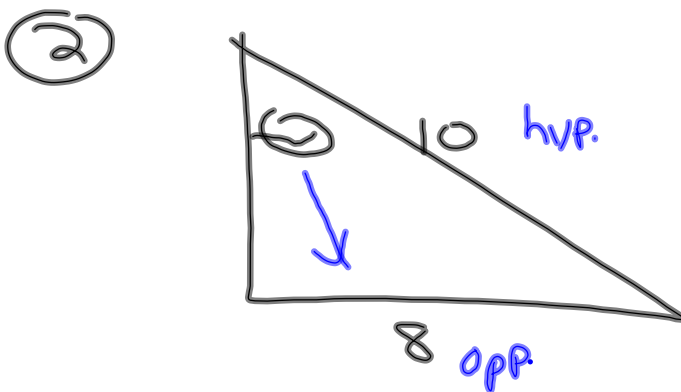
4th Tr:3



$$\frac{\tan 39^\circ}{1} = \frac{7}{x}$$

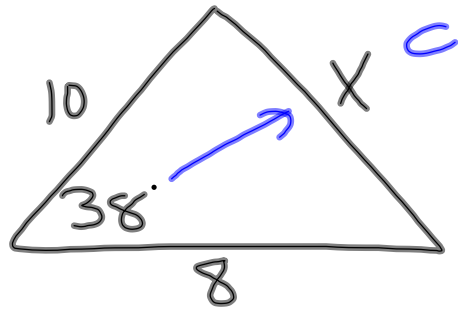
$$\frac{x \cdot \tan 39^\circ}{\tan 39^\circ} = \frac{7}{\tan 39^\circ}$$

$$x \approx 8.6$$



$$\sin^{-1} \sin \theta = \sin^{-1} \frac{8}{10}$$

$$\theta \approx 53.1^\circ$$

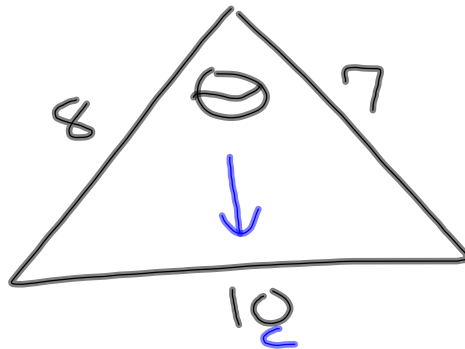


$$c^2 = a^2 + b^2 - 2ab \cos \theta$$

$$\sqrt{x^2} = \sqrt{10^2 + 8^2 - 2 \cdot 10 \cdot 8 \cdot \cos 38}$$

$$\vdots$$

$$x \approx 6.2$$



$$c^2 = a^2 + b^2 - 2ab \cos \theta$$

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

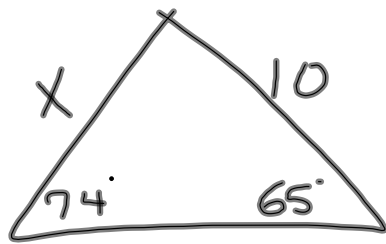
$$100 = 64 + 49 - 112 \cos \theta$$

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

$$\begin{array}{r} -113 \quad -113 \\ \hline -13 = -112 \cos \theta \\ \hline \frac{-13}{-112} = \frac{-112 \cos \theta}{-112} \end{array}$$

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

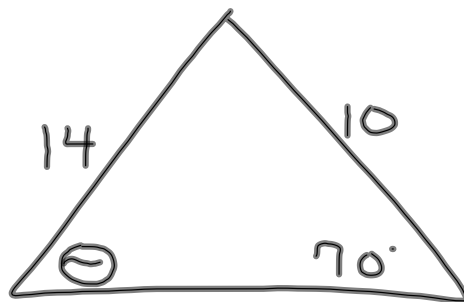
$$83.3 \approx \theta$$



$$\frac{\sin 65}{X} = \frac{\sin 74}{10}$$

$$\frac{X \cdot \sin 74}{\cancel{\sin 74}} = \frac{10 \cdot \sin 65}{\sin 74}$$

$$X \approx 9.4$$



$$\frac{\sin \theta}{10} = \frac{\sin 70}{14}$$

$$\frac{\cancel{14} \cdot \sin \theta}{\cancel{14}} = \frac{10 \cdot \sin 70}{14}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} 0.6712 \dots$$

$$\theta \approx 42.2^\circ$$