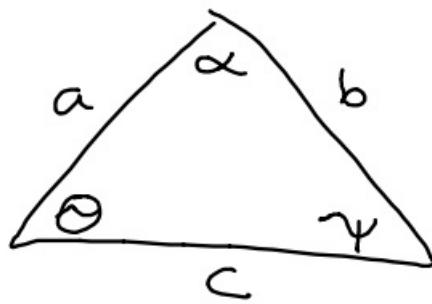


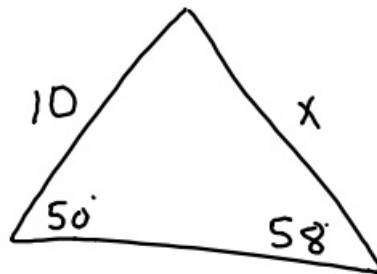
2-20-20 4th Trig



Law of Sines

$$\frac{\sin \theta}{b} = \frac{\sin \alpha}{c} = \frac{\sin \gamma}{a}$$

①

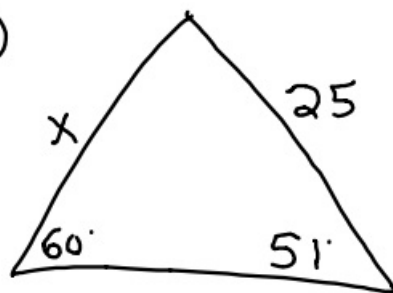


$$\frac{\sin 50^\circ}{x} = \frac{\sin 58^\circ}{10}$$

$$\frac{x \cdot \sin 58^\circ}{\cancel{\sin 58^\circ}} = \frac{10 \cdot \sin 50^\circ}{\cancel{\sin 58^\circ}}$$

$$x \approx 9.0$$

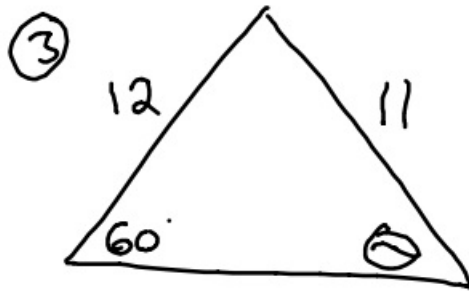
②



$$\frac{\sin 51^\circ}{x} = \frac{\sin 60^\circ}{25}$$

$$\frac{x \cdot \sin 60^\circ}{\cancel{\sin 60^\circ}} = \frac{25 \cdot \sin 51^\circ}{\cancel{\sin 60^\circ}}$$

$$x \approx 22.4$$

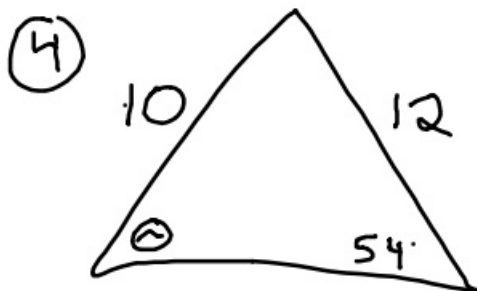


$$\frac{\sin 60^\circ}{11} = \frac{\sin \theta}{12}$$

$$\frac{11 \cdot \sin \theta}{11} = \frac{12 \cdot \sin 60^\circ}{11}$$

$$\sin^{-1} \sin \theta = \sin^{-1} 0.9447\dots$$

$$\theta \approx 70.9^\circ$$



$$\frac{\sin \theta}{12} = \frac{\sin 54^\circ}{10}$$

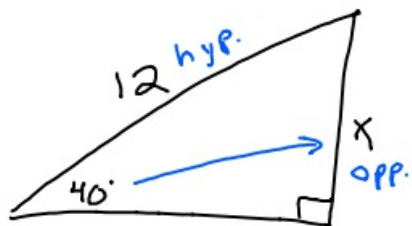
$$\frac{10 \cdot \sin \theta}{10} = \frac{12 \cdot \sin 54^\circ}{10}$$

$$\sin^{-1} \sin \theta \approx \sin^{-1} 0.9708\dots$$

$$\theta \approx 76.1^\circ$$

Ch. 8 Review

①



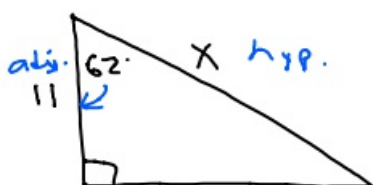
SOH
CAH
TOA

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

$$x = 12 \cdot \sin 40^\circ$$

$$x \approx 7.7$$

②

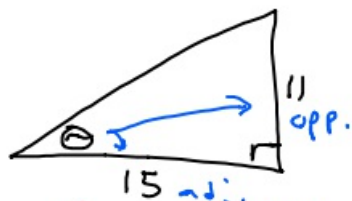


$$\frac{\cos 62^\circ}{1} = \frac{11}{x}$$

$$\frac{x \cdot \cos 62^\circ}{\cos 62^\circ} = \frac{11}{\cos 62^\circ}$$

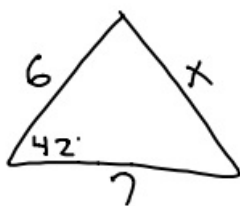
$$x \approx 23.4$$

③

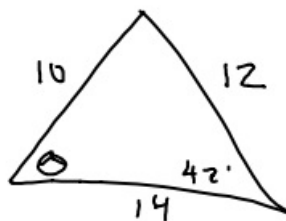


$$\tan^{-1} \tan \theta = \tan^{-1} \frac{11}{15}$$

$$\theta \approx 36.3^\circ$$



1 angle
Law of Cosines



2 angles
Law of Sines