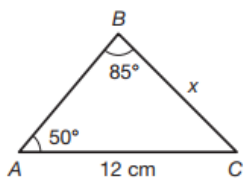


Law of Sines

Name _____

Determine the unknown side length x by using the Law of Sines. Round your answers to the nearest tenth.

7.



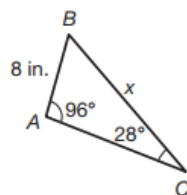
$$\frac{\sin A}{a} = \frac{\sin B}{b}$$
$$\frac{\sin 50^\circ}{x} = \frac{\sin 85^\circ}{12}$$

$$12 \sin 50^\circ = x \sin 85^\circ$$

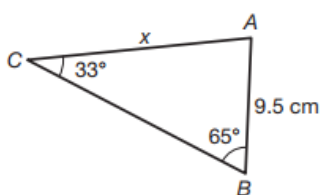
$$x = \frac{12 \sin 50^\circ}{\sin 85^\circ}$$

$$x \approx 9.2 \text{ cm}$$

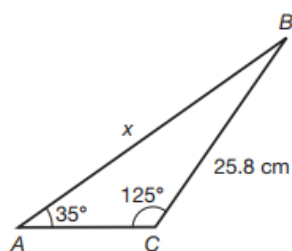
8.



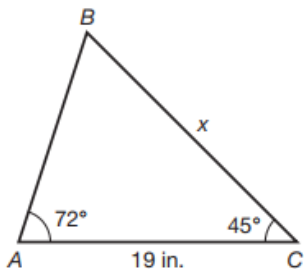
9.



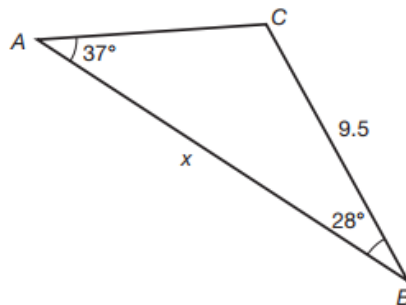
10.



11.

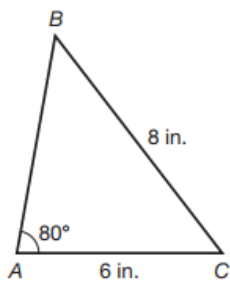


12.



Determine $m\angle B$ by using the Law of Sines. Round your answers to the nearest tenth.

13.



$$\frac{\sin B}{b} = \frac{\sin A}{a}$$

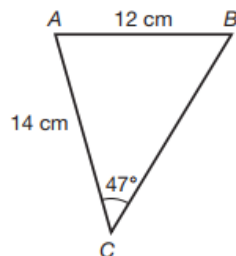
$$\frac{\sin B}{6} = \frac{\sin 80^\circ}{8}$$

$$8 \sin B = 6 \sin 80^\circ$$

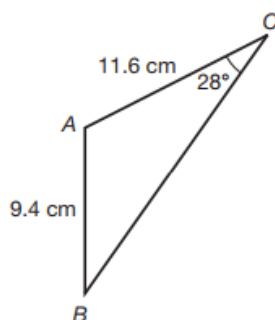
$$\sin B = \frac{6 \sin 80^\circ}{8} \approx 0.739$$

$$m\angle B = \sin^{-1}(0.739) \approx 47.6^\circ$$

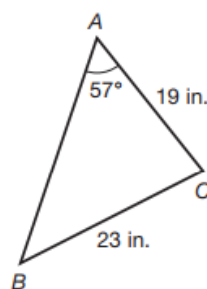
14.



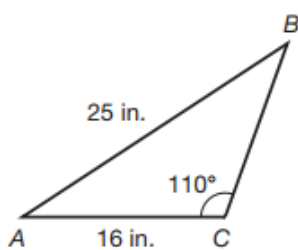
15.



16.



17.



18.

