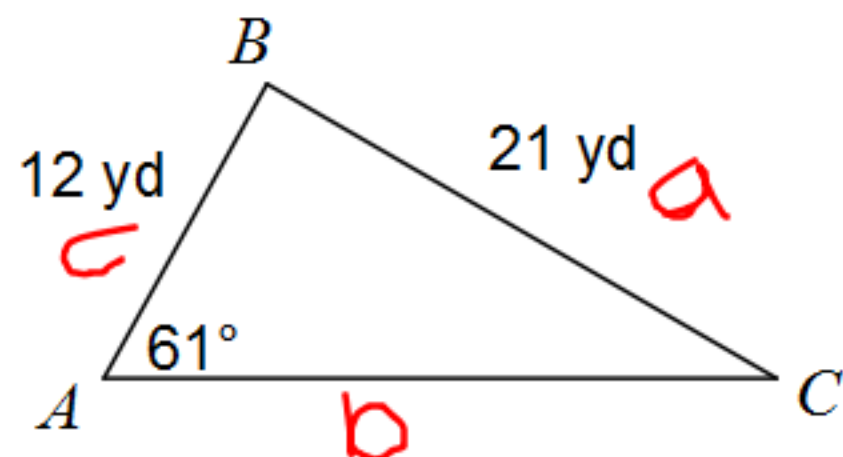


Choosing between Sine Law and Cosine Law

Solve each triangle. Round your answers to the nearest tenth.

2)



$$\begin{aligned}\angle A &= 61^\circ \\ \angle B &= 89^\circ \\ \angle C &= 30^\circ\end{aligned}$$

$$\begin{aligned}a &= 21 \text{ yd} \\ b &= 24 \text{ yd} \\ c &= 12 \text{ yd}\end{aligned}$$

$$\begin{aligned}\angle B &= 180 - 61 - 30 \\ \angle B &= 89^\circ\end{aligned}$$

$$\frac{\sin A}{a} = \frac{\sin C}{c}$$

$$\frac{\sin 61}{21} = \frac{\sin C}{21}$$

$$10.5 = \sin C (21)$$

$$\begin{aligned}21 & \quad 21 \\ + 0.4998 &= \sin C - 1 \\ 300 &= C\end{aligned}$$

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

$$\frac{21}{\sin 61} = \frac{b}{\sin 89}$$

$$\begin{aligned}21 &= \frac{\sin 61 (b)}{\sin 89} \\ \sin 61 & \quad \sin 89 \\ 24 &= b\end{aligned}$$