

$$65^\circ + 90^\circ = 155^\circ$$

$$180^\circ - 155^\circ = 25^\circ$$

$$\frac{\sin 25^\circ}{7 \text{ (ft)}} = \frac{\sin 65^\circ}{x}$$

$$\frac{\sin 25^\circ}{84 \text{ (inches)}} = \frac{\sin 65^\circ}{x}$$

$$\sin 65^\circ (7) = \sin 25^\circ x$$

$$\sin 65^\circ (84) = \sin 25^\circ x$$

$$\frac{6.34}{\sin 25^\circ} = \frac{\sin 25^\circ x}{\sin 25^\circ}$$

$$\frac{76.13}{\sin 25^\circ} = \frac{\sin 25^\circ x}{\sin 25^\circ}$$

$$x = 15 \text{ feet } \del{8}$$

(15.01)

$$x = 180.14 \text{ inches}$$