

Section 6-4 Law of Sines

1. In  $\triangle ABC$ ,  $c = 8$ ,  $A = 55^\circ$ ,  $C = 30^\circ$ . Find  $a$  and  $b$ .

**Law of Sines**

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} \quad \text{and} \quad \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

2. In  $\triangle ABC$ ,  $A = 76^\circ$ ,  $B = 34^\circ$ ,  $c = 9$ . Find  $a$  and  $b$ .

3. In  $\triangle ABC$ ,  $B = 35^\circ$ ,  $C = 105^\circ$ ,  $b = 7$ . Find  $a$  and  $c$ .