

Exercises 7.4

$$2. \quad \sin \theta = \frac{50 \cdot \sin 67^\circ}{70} \approx 0.658. \quad \text{Then } \theta \approx \sin^{-1} 0.658 \approx 41.1^\circ$$

$$4. \quad \angle C = 180^\circ - 98.4^\circ - 24.6^\circ = 57^\circ. \quad x = \frac{420 \cdot \sin 57^\circ}{\sin 98.4^\circ} \approx 356.1$$

$$6. \quad \angle C = 180^\circ - 102^\circ - 28^\circ = 50^\circ. \quad x = \frac{80 \cdot \sin 50^\circ}{\sin 102^\circ} \approx 62.7$$

$$8. \quad \angle B = 180^\circ - 30^\circ - 100^\circ = 50^\circ. \quad \text{Then } c = \frac{2 \cdot \sin 100^\circ}{\sin 50^\circ} \approx 2.57 \quad \text{and} \quad a = \frac{2 \cdot \sin 30^\circ}{\sin 50^\circ} \approx 1.31.$$