

## Suggested Answers

### Lesson 9

**SC1:** Side ML or side n is adjacent to MLN

**SC2:**

$$\cos MLN = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\cos MLN = \frac{8}{10}$$

$$\cos MLN = 0.8$$

**SC3:**

$$\cos MLN = \frac{8}{10}$$

$$\angle MLN = \cos^{-1}\left(\frac{8}{10}\right)$$

$$\angle MLN = 36.9^\circ \text{ or } 37^\circ$$

Or

$$\sin MLN = \frac{6}{10}$$

$$\angle MLN = \sin^{-1}\left(\frac{6}{10}\right)$$

$$\angle MLN = 36.9^\circ \text{ or } 40^\circ$$

Or

$$\tan MLN = \frac{6}{8}$$

$$\angle MLN = \tan^{-1}\left(\frac{6}{8}\right)$$

$$\angle MLN = 36.9^\circ \text{ or } 40^\circ$$

We can do this three different ways since we know all three sides and can choose which trig ratio to use.

**SC4:**

$$\tan R = \frac{12}{18}$$

$$\angle R = \tan^{-1}\left(\frac{12}{18}\right)$$

$$\angle R = 33.7^\circ \text{ or } 34^\circ$$