# CHAPTER 9
## Lesson 9.6 (pp. 503–506)

### Hints and Homework Help for Exs. 5, 9, 13, 31

**5.** $\sin P = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{11}{61}$

$\cos P = \frac{\text{adjacent}}{\text{hypotenuse}} = \frac{60}{61}$

$\tan P = \frac{\text{opposite}}{\text{adjacent}} = \frac{11}{60}$

$\sin R = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{60}{61}$

$\cos R = \frac{\text{adjacent}}{\text{hypotenuse}} = \frac{11}{61}$

$\tan R = \frac{\text{opposite}}{\text{adjacent}} = \frac{60}{11}$

**9.** $\sin 80° \approx 0.9848$

**13.** $\sin K = \frac{\text{adjacent}}{\text{hypotenuse}}$

$\sin 43° = \frac{9}{x}$

$x = \frac{9}{\sin 43°}$

$x \approx \frac{9}{0.6820}$

$x \approx 13.197$

The value of $x$ is about 13.197 centimeters.

**31.** Hint:

**Step 1** Refer to the Trigonometric Ratios given in the Key Concept box on page 500 to find the appropriate equation.

**Step 2** Substitute for the angle measure and opposite side length, and solve for the hypotenuse.