# Chapter 8 Test Review

- Know the Pythagorean triple patterns
- Given three side lengths, determine if the triangle is acute, right, or obtuse
- Know what SOH-CAH-TOA stands for and how to use it
- Be able to calculate sine, cosine, and tangent of an angle using your calculator
- Be able to use your calculator to find an angle if you are given its sine, cosine, or tangent
- Know the ratios for the two "special" triangles

1. List three Pythagorean triple patterns.

2. Bert and Ernie are leaving their home at the same time. Bert drives north 20 miles, and Ernie drives east 15 miles. How far apart are they?

3. The base of a 26-foot ladder is placed 10 feet from a wall. How far up the wall does the ladder extend?

4. Given the lengths of three sides, determine if each triangle is acute, right, or obtuse:

   a. 4, 5, 6   b. 6, 8, 10   c. 5, 12, 14

5. What does SOH stand for?

6. What does CAH stand for?

7. What does TOA stand for?

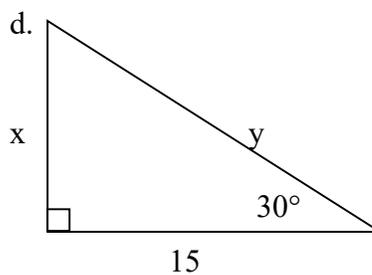8. Find the following ratios. Your answers should be fractions.

   a. sin A
   b. cos A
   c. tan B
   d. cos B
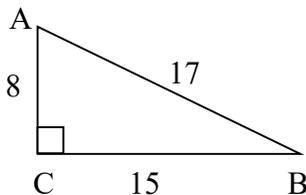
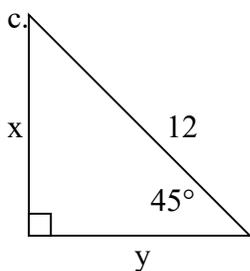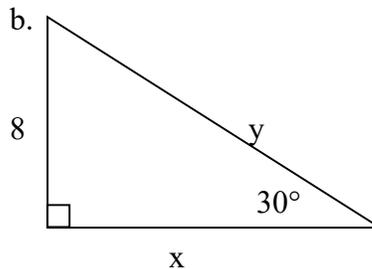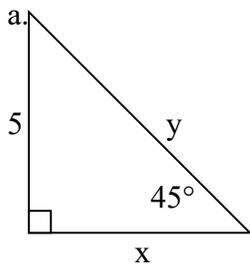

9. Use your calculator to find each of the following to three decimal places.
   a. sin 71°
   b. cos 24°
   c. tan 128°

10. Use your calculator to find each angle measure to two decimal places.
   a.   sin X = 0.319
   b.   cos Y = -0.652
   c.   tan Z = 2.104

11. Use special triangles to solve for x and y.

a.

5   y
   45°
   x

b.

8   y
   30°
   x

c.

x   12
   45°
   y

d.

x   y
   30°
   15

12. Solve for x.

x   28
   37°

x   26°
   54

36
   43°
   x

x
61   54°