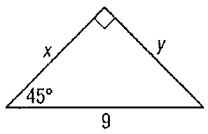
NAME _____ DATE _____ PERIOD ____

7-3 Practice

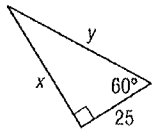
Special Right Triangles

Find x and y.

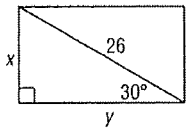
1.



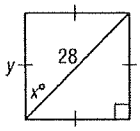
2.



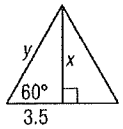
3.



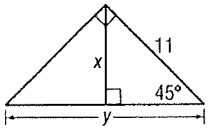
4.



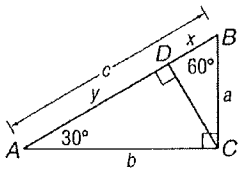
5.



6.



For Exercises 7–9, use the figure at the right.



7. If $a = 4\sqrt{3}$, find b and c.

8. If $x = 3\sqrt{3}$, find a and CD.

9. If $a = 4$, find CD, b, and y.

10. The perimeter of an equilateral triangle is 39 centimeters. Find the length of an altitude of the triangle.

11. $\triangle MIP$ is a 30°-60°-90° triangle with right angle at I, and $\overline{IP}$ the longer leg. Find the coordinates of M in Quadrant I for $I(3, 3)$ and $P(12, 3)$.

12. $\triangle TJK$ is a 45°-45°-90° triangle with right angle at J. Find the coordinates of T in Quadrant II for $J(-2, -3)$ and $K(3, -3)$.

13. BOTANICAL GARDENS One of the displays at a botanical garden is an herb garden planted in the shape of a square. The square measures 6 yards on each side. Visitors can view the herbs from a diagonal pathway through the garden. How long is the pathway?