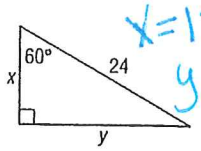
NAME Key DATE _____ PERIOD ____

8-3 Skills Practice

Special Right Triangles

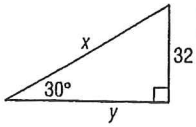
Find the exact values of x and y.

1.



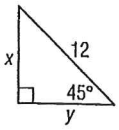
$x = 12$
$y = 12\sqrt{3}$

2.



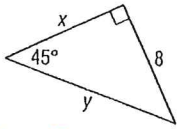
$x = 64$
$y = 32\sqrt{3}$

3.



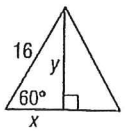
$x = 6\sqrt{2}$
$y = 6\sqrt{2}$

4.



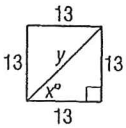
$x = 8$
$y = 8\sqrt{2}$

5.



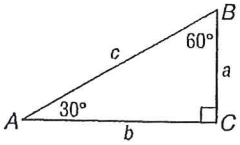
$x = 8$
$y = 8\sqrt{3}$

6.



$x = 45°$
$y = 13\sqrt{2}$

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



7. If $a = 11$, find b and c.

$b = 11\sqrt{3}$ $c = 22$

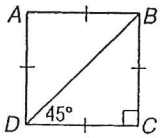
8. If $b = 15$, find a and c.

$a = 5\sqrt{3}$ $c = 10\sqrt{3}$

9. If $c = 9$, find a and b.

$a = 4.5$, $b = 4.5\sqrt{3}$

For Exercises 10 and 11, use the figure at the right.



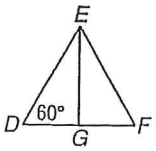
10. The perimeter of the square is 30 inches. Find the length of $\overline{BC}$.

7.5 in

11. Find the length of the diagonal $\overline{BD}$.

$7.5\sqrt{2}$ in

12. The perimeter of the equilateral triangle is 60 meters. Find the length of an altitude.



$10\sqrt{3}$ m

13. $\triangle GEC$ is a 30°-60°-90° triangle with right angle at E, and $\overline{EC}$ is the longer leg. Find the coordinates of G in Quadrant I for $E(1, 1)$ and $C(4, 1)$.

$(1, 1+\sqrt{3})$

Lesson 8-3