Name _____ Class _____ Date _____

Use with Section 8.4

Extra Practice

Problems and Applications

1 Solve each equation for y.

a $\sqrt{y} = 6$ b $y^2 = 36$

c $x^2 = 2x^2$ d $x^2 + 16 = 2x^2$

2 Solve each equation for w.

a $|w| = 2$ b $|w - 3| = 6$

c $|w + 1| + 2 = 4$ d $|w| - 3 = 5$

3 Solve each equation for m.

a $4(m - 1) = 8$ b $3m^2 = 48$

c $5m + 15 = 12m + 1$

4 Jill wants to build a rectangular swimming pool with a perimeter of 204 ft and sides of length x and $(3x + 2)$ feet.

a Solve for x.

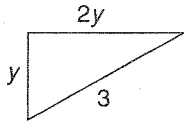
b What are the dimensions of the pool?

5 Find the value of a, b, c, and d in the equation.

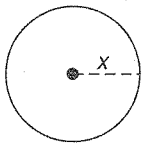
$$\begin{bmatrix} a-1 & 3 \\ c^2 & d+2 \end{bmatrix} = \begin{bmatrix} 4 & 2b+5 \\ 3c^2 & 2d \end{bmatrix}$$

6 Use a number line to graph the values of x for which $-|x| = x$.

7 Find the value of y so that the perimeter of the triangle equals 12.



8 Find the value of x so that the area of the circle is equal to 49π.



9 Solve each equation or simplify each expression.

a $5(4x - 9) = 125$

b $2\sqrt{a} - \sqrt{a} + 4$

c $\sqrt{c} + 2 = 6$

d $9x^2 - 3(2x^2 + 1)$

1a _____

b _____

c _____

d _____

2a _____

b _____

c _____

d _____

3a _____

b _____

c _____

4a _____

b _____

5 _____

6 _____

7 _____

8 _____

9a _____

b _____

c _____

d _____