Name_____ Date _____

3.1 Practice A

In Exercises 1–6, solve the equation by graphing.

1. $x^2 - 6x + 5 = 0$

2. $x^2 - 6x + 9 = 0$

3. $x^2 - 25 = 0$

4. $x^2 - 4x - 12 = 0$

5. $12 = x^2 - 4$

6. $2x^2 - 3 = 5x$

In Exercises 7–9, solve the equation using square roots.

7. $t^2 = 100$

8. $g^2 = 64$

9. $(y + 2)^2 = 16$

10. Describe and correct the error in solving the equation.

$$\begin{aligned} (x - 2)^2 + 16 &= 25 \\ x - 2 + 4 &= \pm 5 \\ x + 2 &= \pm 5 \\ x &= -2 \pm 5 \end{aligned}$$

$x = 3$ and $x = -7$

In Exercises 11–13, solve the equation by factoring.

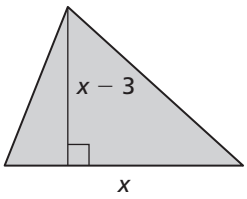
11. $0 = x^2 - 4x + 4$

12. $x^2 + x = 6$

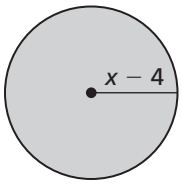
13. $m^2 + 4m = 0$

In Exercises 14 and 15, find the value of *x*.

14. Area of triangle $= 27$



15. Area of circle $= 9\pi$



In Exercises 16–19, solve the equation using any method. Explain your reasoning.

16. $\frac{c^2}{8} - 3 = 2$

17. $7v = v^2$

18. $-3(p + 2)^2 = 12$

19. $x^2 - 5x - 24 = 0$

20. Write a quadratic function in the form $f(x) = x^2 + bx + c$ that has zeros 2 and -12.