

## Review of 3.1 & 3.2

Solve the equation using square roots.

1.  $(3x - 3)^2 = 36$

2.  $x^2 = 81$

3.  $2(x - 2)^2 - 8 = -4$

4.  $5 - 3(2x + 1)^2 = -22$

Solve the equation by factoring.

5.  $0 = x^2 + 8x + 16$

6.  $x^2 - 3x = 10$

7.  $x^2 - 64 = 0$

8.  $4x^2 - 12 = 2x$

Find the zero(s) of the function.

9.  $f(x) = 2x^2 + 7x - 4$

10.  $f(x) = x^2 - 121$

**Solve the equation using any method.**

11.  $x^2 - 7x = 0$

12.  $3x^2 - 4x = 20x + 27$

13.  $\frac{1}{2}(x - 1)^2 - 4 = -1$

14.  $2x^2 + 5x = 5x + 50$

15.  $-x^2 + 30 + 4x = -2x^2 + 14x + 6$

**Find the square root of the number.**

16.  $\sqrt{-625}$

17.  $\sqrt{-90}$

18.  $-4\sqrt{-144}$

19.  $8\sqrt{-20}$

Find the values of  $x$  and  $y$  that satisfy the equation.

20.  $-3x + 4i = 2yi + 9$

21.  $20 - 5xi = \frac{1}{3}y + 35i$

Add, subtract, or multiply. Write the answer in standard form.

22.  $(8 - i) + (3 + i) - i$

23.  $(12 + 7i) - (8 - 4i)$

24.  $4i(-2 + 7i)$

25.  $(4 - 6i)(4 + 6i)$

Find the zeros of the function.

26.  $f(x) = -2x^2 - 30$

27.  $f(x) = 4x^2 + 8$

28.  $f(x) = \frac{2}{3}x^2 + 18$

29.  $f(x) = 3x^2 + 75$

