

Lesson 10.1.2

- 10-13. $\frac{3x-1}{2x+3}$; x cannot be -4 or $-\frac{3}{2}$.
- 10-14. $\frac{3}{7}, \frac{5}{4}$
- 10-15. a. $\frac{4x+3}{x+3}$, $x \neq 5$ or -3 b. $\frac{x+2}{2x+1}$, $x \neq \frac{1}{9}$ or $-\frac{1}{2}$ c. $\frac{7+4m}{3m-2}$, $m \neq \frac{2}{3}$ or $-\frac{3}{2}$
 d. $\frac{(y-2)^2(y+5)}{3y(y+2)}$, $y \neq 0, -2, \text{ or } 2$ e. $2x$, $x \neq 0$ and $y \neq 0$ f. $\frac{3x+1}{2x-3}$, $x \neq \frac{3}{2}, 4, \text{ or } \frac{2}{5}$
- 10-16. a. $\frac{4}{11}$ b. $\frac{3}{25}$ c. $\frac{5(x-2)}{(x+4)^2}$ d. $\frac{2(2x-3)}{(x-5)(x+1)}$ e. $\frac{5x-1}{2(x-3)} = \frac{5x-1}{2x-6}$ f. $\frac{1}{2x+5}$
for $x \neq -4, 3, \frac{2}{3}$ for $x \neq 5, -1, 3, 4$ for $x \neq 3, -1, 0$ for $x \neq -\frac{5}{2}, 2, -4$
- 10-18. a. $x - 2 = 4$ b. For each, $x = 6$. c. $x + 3 = 8$, $x = 5$
- 10-19. a. $m = -\frac{6}{5}$, $b = (0, -7)$ b. $m = \frac{3}{2}$, $b = (0, -5)$ c. $m = 2$, $b = (0, -12)$
- 10-20. a. $(\frac{1}{3}, -2)$ b. $(4, -9)$ 10-21. a. $\frac{x-4}{3x+2}$ b. $\frac{5}{x-3}$ c. 2
- 10-22. a. $m = -6$ b. $x = 5.5$ c. $k = 4$ d. $x = 90$
- 10-23. after 44 minutes

Lesson 10.1.3

- 10-24. a. $\frac{2x}{3(2x-1)} = \frac{2x}{6x-3}$ b. $\frac{x-4}{x+4}$
- 10-25. a. She can multiply each term in the equation by a number to eliminate the decimals.
 b. $2x^2 + 3x - 5 = 0$, $(2x+5)(x-1) = 0$, so $x = -2.5$ or 1 .
- 10-26. a. $3x - 5 = 7$, $x = 4$ b. $3x^2 - 2x - 5 = 0$, $x = -1$ or $\frac{5}{3}$
 c. $1 + x = 10$, $x = 9$ d. $4x^2 + 8x - 5 = 0$, $x = \frac{1}{2}$ or $x = -\frac{5}{2}$
- 10-27. a. $x - \frac{15}{4} = 24$; One denominator was eliminated, but there is still a fraction left over.
 b. Multiply by 4; $4x - 15 = 96$, $x = \frac{111}{4} = 27\frac{3}{4}$.
 c. 24 or any multiple of 24; 24 is the least common multiple of 6 and 8; $4x - 15 = 96$.
 d. $x = 27\frac{3}{4}$
- 10-28. Equations: $4x - 2 = 6x$, $1 - 2x = 5$, $5 - 3x = -7$, $2x + 1 = 5$, $x - 6 = 3 + 2x$,
 $4 - x = -1$; solutions: a: $x = -1$, b: $x = -2$, c: $x = 4$, d: $x = 2$, e: $x = -9$, f: $x = 5$
- 10-30. a. $\frac{5(3x-1)}{2(4x+1)}$ b. 1 c. $\frac{p+9}{3p-2}$ d. $\frac{4}{x-2}$
- 10-31. $y = -\frac{1}{3}x + 2$ 10-32. $y < -\frac{2}{3}x + 2$ 10-33. a. $2d - 3$ b. $2d - 3 = 19$, 11 candies