Chapter 1

Solving Equations and Inequalities

1.1 Solving Equations

1. $5x + 6x + 17 = -16$
2. $5.32 + 0.4x - 0.6x = 7.1$
3. $4(x - 2) = 3(x + 6)$
4. $-2(x + 2) - 4 = 6 - 3(x + 1)$
5. $5(y + 8.3) + 1.2 = y - 16.6 - 1.2$
6. $5(x + 5) + 10 = 3(x - 4) + 2x$
7. $7 + 2(3x + 1) = 3(2x - 5) + 24$
8. $8x + 3(4 - x) = 5(x + 2) + 2$
9. $x - 2.8 = 1.9$
10. $5y + 12 = 2y - 3$
11. $6x = 4(x - 5)$
12. $5(x - 7) = 6x + 35 - x$
13. $6(4x + 4) = 8(3 + 3x)$
14. $-5x + 4.4 = -3(x + 1)$
15. $\frac{1}{2}(6x - 5) = 22$
16. $-3(5x + 1) = 5x + 12$
17. $0.7x - 3.2 + 0.3x = 1.1x - 6 + 5x$
18. $7(-5x + 2) = 12x + 15$
19. $-0.1x + 3.2 - 0.8x = -1.1x + 9x$
20. $-7(5x - 2) = 15x - 12$
21. $0.1x - 3.2 + 0.8x = 1.1x - 7 + 2x$
22. $-7(x + 14) - 12(x + 1) = 8(x - 5)$
23. $\frac{1}{3}(x - 7) + \frac{3}{4} = \frac{2}{3}x + 1$
24. $12(x + 14) - 7(x + 2) = -4(x + 1)$
25. $\frac{1}{4}(x + 3) - \frac{5}{4} = \frac{2}{3}x - 1$
26. $-3(2x + 1) + 4(x - 9) = 2(x + 1)$
27. $-\frac{1}{3}(x + 1) + \frac{2}{3} = \frac{2}{5}x + 7$

1.2 Solving Inequalities

1. $6x + 1 > 7x$
2. $-2x + 7 \geq 9$
3. $20 + x < 6x - 15$
4. $6(2 - 3x) \leq 12$
5. $5(x + 4) \geq 4(2x + 3)4$
6. $0.2(8x - 2) < 1.2(x - 3)$
7. $2(x + 7) \geq 15$
8. $-3x - 17 > 5x + 22$
9. $0.2x - 3.8 \leq -1.4x + 2.7$
10. $5x + 4 - 3x \leq x - 5$
11. $3(2x - 1) > 8x + 9$
12. $3(2x - 10) > 5x - 4x + 1$
13. $9x + 3 \leq 2x + 12$
14. $10(3x + 2) \geq 2x - 8$
15. $-3x - 10 > -8x - 15$
16. $4x + 3 > 2x - 10$
17. $5x - 10 \leq 2(2x + 7)$

1.3 Solving Equations Key

1.4 Solving Inequalities Key