

Practice 1-7

The Distributive Property

Simplify each expression.

EX. 1. $2(x + 6)$ $2x + 12$

2. $-5(8 - b)$

3. $4(-x + 7)$

EX 13. $\frac{2}{3}(\frac{12}{1} - \frac{15d}{1})$ $\frac{24}{3} - \frac{30d}{3}$
 $8 - 10d$

14. $-2(k - 11)$

15. $-\frac{1}{3}(6h + 15)$

16. $(2c - 8)(-4)$

17. $-(4 - 2b)$

18. $2(3x - 9)$

19. $4(2r + 8)$

20. $-5(b - 5)$

21. $3(f + 2)$

22. $6h + 5(h - 5)$

23. $-5d + 3(2d - 7)$

24. $7 + 2(4x - 3)$

25. $2(3h + 2) - 4h$

26. $2(4 + y)$

27. $\frac{1}{2}(2n - 4) - 2n$

Practice 2-3

Solving Multi-Step Equations

Solve each equation. Check your answer.

EX7. $3c - 8c + 7 = -18$
 $-5c + 7 = -18$
 $-5c = -25$
 $c = 5$

8. $7g + 14 - 5g = -8$

9. $2b - 6 + 3b = 14$

10. $2(a - 4) + 15 = 13$

11. $7 + 2(a - 3) = -9$

12. $13 + 2(5c - 2) = 29$

13. $5(3x + 12) = -15$

14. $4(2a + 2) - 17 = 15$

15. $2(m + 1) = 16$

16. $-4x + 3(2x - 5) = 31$

EX 17. $-6 - 3(2k + 4) = 18$
 $-6 - 6k - 12 = 18$
 $-18 - 6k = 18$
 $-6k = 36$
 $k = -6$

18. $3(t - 12) = 27$

19. $-w + 4(w + 3) = -12$

20. $4 = 0.4(3d - 5)$

21. $-4d + 2(3 + d) = -14$

22. $2x + \frac{3}{4}(4x + 16) = 7$

23. $2(3a + 2) = -8$

24. $5(t - 3) - 2t = -30$

Practice 2-4

Equations with Variables on Both Sides

Solve each equation. Check your answer. If appropriate, write *identity* or *no solution*.

1. $7 - 2n = n - 14$

4. $6t = 3(t + 4) - t$

7. $3(n - 1) = 5n + 3 - 2n$

10. $8(2f - 3) = 4(4f - 8)$

Ex. $2(4 - 2r) = -2(r + 5)$ $18 - 4r = 2r$
 $8 - 4r = -2r - 10$ $18 = 2r$
 $+10$ $+10$ $\div 2$
 $18 - 4r = -2r$ $r = 9$

3. $3d + 8 = 2d - 7$

5. $8z - 7 = 3z - 7 + 5z$ $r = 9$

6. $7x - 8 = 3x + 12$

8. $2(6 - 4d) = 25 - 9d$

9. $4s - 12 = -5s + 51$

11. $6k - 25 = 7 - 2k$

12. $3v - 9 = 7 + 2v - v$