

### 3-5-2 Practice with Distribution

Practice: Solve each of the following.

- |                                 |   |   |
|---------------------------------|---|---|
| a) $3(2x + 5) = -8$             | $9 = 4(4x - 8) + 12$  | $15 = 3(4x - 8)$  |
| b) $2(3f + 6) = -9$             | $7 = 5(2r - 10) + 1$  | $60 = 60(7t - 7)$   |
| c) $7(2v + 5) = 0$              | $3 = 14(6b - 2) + 20$   | $25 = 3(8a - 4)$  |
| d) $9(3y + 6) = -9$             | $14 = 7(3g - 9) + 15$   | $15 = 3(8 - u)$   |
| e) $15 = 9 - (4x - 8)$          | $5 - (3x - 5) = -10$  | $16 = -(5 - a)$   |
| f) $16 = 2 - (3w - 10)$         | $12 - (11p - 6) = -50$  | $32 = -2(5 - h)$  |
| g) $30 = 4 - (9m - 80)$         | $8 - (9c - 12) = 0$   | $26 = -(3 - 2j)$  |
| h) $10 = 9 - (12k - 6)$         | $3 - 2(6q - 10) = -12$  | $216 = -(25 - 2a)$  |
| i) $-3(9 - 5x) = 12$            | $\frac{4}{5} = 2\frac{1}{3} - \frac{1}{2}\left(6x - \frac{4}{5}\right)$ | $4 - 2\frac{3}{4}\left(\frac{7}{11} - 5m\right) = 12$               |
| j) $8x - (3x - 5) = 17$         |   | $812 = -9h - (7h + 988)$  |
| k) $i - (2i - 3) = 45$          |   | $314 = -h - (5h + 927)$   |
| l) $10v - (9v - 8) = 76$        |   | $208 = -35h - (72h + 481)$  |
| m) $5l - (3l - 4) = 16$         |   | $888 = -8t - (8t + 888)$  |
| n) $-5 = 4(6 - 5p) + 23p$       |   | $5\frac{1}{3} = -9s - \left(\frac{2}{3} + \frac{2}{3}s\right) + 12$ |
| o) $3(2x - 5) + 4(6 - 5x) = 23$ |   | $-5 = \frac{1}{8}(4k - 8) - \frac{2}{3}(12k - 15)$                  |
| p) $-45 = 2(4w - 8) - (7w - 5)$ |   | $\frac{4}{5}(2x - 5) + \frac{2}{3}(6 - 5x) = 0$                     |
| q) $5(2x - 9) - (2x - 8) = 0$   |   | $9 = (7x - 9) - 8(2 - 8x)$  |

$$r) \quad 5 = -(5x - 8) - 4 - (3x - 8)$$

$$6\left(2\frac{1}{3}x - \frac{1}{8}\right) - \left(x - \frac{5}{3}\right) = 7$$

$$s) \quad 3(2d - 7) - (8 - 8d) - 4d + 9 = 2$$

$$5 = 4x - 8 - (5x - 8)$$

$$t) \quad 9 = 21 - (2t - 7) - 10t$$

$$4(2z - 8) - (z - 9) = 8$$

$$u) \quad 3 - 7[2 + 3(2x + 8)] = 7$$

$$5\{2 - [3b - 5(2b - 9)]\} - 3b = 10$$

$$v) \quad 5 - (9 - 8x) - (3(2x - 5) - 2) = -5$$

$$8 - \{-[-(3x - 8)]\} = 0$$

$$w) \quad 9 - \{5[3(2n - 8) - 4] + 5\} = -7$$

$$x) \quad 2(3 - (4y + 8)) - (9 - 2(3y + 5)) = 10$$

$$y) \quad 7(8f - 5(2f - 8)) - (5 + 4(5f - 9)) + 5(f + 5) + 5(9f - (7 + 2(5f + 8))) + 12 = 15$$