

LESSON  
3.8**Practice B**

For use with pages 184–189

**Write the equation in function form.**

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|------------------------|-------------------------|------------------------|
| 1. $4x + y = -10$      | 2. $6 - y = 17x$        | 3. $y - 3x - 11 = 0$   |
| 4. $2x + 2y = 8$       | 5. $6x - 3y = 12$       | 6. $16 - 8y = 4x$      |
| 7. $5x - 7y = 14$      | 8. $9y - 4x - 9 = 0$    | 9. $15 + 3y = -24x$    |
| 10. $4 + 6y = 12x - 2$ | 11. $4 - 10y = 22 - 6x$ | 12. $8x - 2y - 5 = 11$ |

**Solve the literal equation.**

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|---------------------------------------|----------------------------------|
| 13. Solve $R = R_1 + R_2$ for $R_2$ . | 14. Solve $I = Prt$ for $r$ .    |
| 15. Solve $C = \frac{Q}{V}$ for $V$ . | 16. Solve $y = mx + b$ for $m$ . |

**Solve the formula for the indicated variable.**

17. Area of a trapezoid:  $A = \frac{h}{2}(b_1 + b_2)$ . Solve for  $h$ .
18. Area of a rhombus:  $A = \frac{1}{2}d_1d_2$ . Solve for  $d_1$ .
19. **Guitar Practice** You practice playing your guitar every day. You spend 15 minutes practicing chords and the rest of the time practicing a new song. So the total number of minutes  $y$  you practice for the week is given by  $y = 7(15 + x)$ , where  $x$  is the number of minutes you spend on practicing a new song.
- Solve the equation for  $x$ .
  - How many minutes did you spend on a new song if you practiced 210 minutes last week? 245 minutes? 315 minutes?
20. **Discounts** Solve for  $r$  in the formula  $S = L - rL$  where  $S$  is the sale price,  $L$  is the list price, and  $r$  is the discount rate.
- An item with a list price of \$128 goes on sale for \$51.20. Find the discount rate.
  - An item with a list price of \$56.80 goes on sale for \$36.92. Find the discount rate.
21. **Cookbook** You bought a cookbook while on a recent trip overseas. All of the oven temperatures are in degrees Celsius and the only formula you can remember for temperature is how to convert Fahrenheit to Celsius:  $C = \frac{5}{9}(F - 32)$ .
- Solve the equation for  $F$ .
  - A recipe tells you to bake a pie in the oven at  $149^\circ\text{C}$ . What is this temperature in degrees Fahrenheit? Round your answer to the nearest whole degree.