LESSON 3.7

NAME _____ DATE _____

Practice B

For use with pages 171–176

Solve for the indicated variable.

1. *Simple Interest*
   Solve for t: $I = Prt$
2. *Area of a Kite*
   Solve for d_2: $A = \frac{1}{2}d_1d_2$
3. *Area of a Trapezoid*
   Solve for b_1: $A = \frac{1}{2}h(b_1 + b_2)$
4. *Temperature*
   Solve for C: $F = \frac{9}{5}C + 32$
5. *Surface Area of a Regular Pyramid*
   Solve for ℓ: $S = B + \frac{1}{2}P\ell$
6. *Surface Area of a Right Cylinder*
   Solve for h: $S = 2\pi r^2 + 2\pi rh$

Solve the equation for y.

7. $y + 9x = 4$
8. $5y - 2x = 15$
9. $-2y + 10x = 8$
10. $-4y - 8 = 12x$
11. $-4x = 2y - 16$
12. $7 - y = 3.5x$
13. $2 - \frac{y}{6} = 8x$
14. $\frac{1}{2}y - 7 = -3x$
15. $3y - 6 = 9 - 2x$
16. $-2x + 5y - 6 = -11$
17. $4x - 8x + 4 = 2y - 5$
18. $\frac{1}{2}(y + 5) + 6x = 4x$
19. $3x + 3y = 14 - 4x$
20. $4x + 2(y - 3) = 10$
21. $6x - 3(y - 1) = 4x + 8$

Solve the equation for x. Then use the result to find x when $y = -2, -1, 0$, and 1.

22. $x - 2y = -3$
23. $5x - y = 10$
24. $4x - 2y = 4$
25. $5y + x = -3 + 4y$
26. $3x - 2y = 4 + 7x$
27. $4y - 3(x - 2) = 22$

Airplane Travel **In Exercises 28 and 29, use the formula $d = rt$, where d is the distance traveled at a rate of r for time t.**

28. Solve the equation for t.
29. Determine how long (in hours and minutes) it will take an airplane to travel 2500 miles if it flies 200 miles per hour, 400 miles per hour, and 600 miles per hour.

Savings Account **In Exercises 30 and 31, use the formula $I = Prt$, where I is the simple interest on an investment of P dollars at an interest rate r for t years.**

30. Solve the equation for P.
31. Find the principal P for two years that earned \$151.25 in interest with a rate of 0.055.

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