

Practice A

For use with pages 174–179

Solve for the indicated variable.

- Area of a Rectangle*
Solve for w : $A = lw$
- Perimeter of a Square*
Solve for s : $P = 4s$
- Ohm's Law*
Solve for R : $E = IR$

- Circumference of a Circle*
Solve for r : $C = 2\pi r$
- Distance-Rate-Time*
Solve for r : $d = rt$
- Volume of a Circular Cone*
Solve for h : $V = \frac{1}{3}\pi r^2 h$

Rewrite the equation so that y is a function of x .

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

Rewrite the equation so that x is a function of y . Then use the result to find x when $y = -2, -1, 0,$ and 1 .

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| 19. $x - y = 4$ | 20. $x - 2y = -3$ | 21. $2x + 4y - 6 = 0$ |
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Airplane Travel In Exercises 22 and 23, use the formula $d = rt$, where d is the distance traveled at a rate of r for time t .

- Solve the equation for t .
- Determine how long it will take an airplane to travel 2000 miles if it flies 200 miles per hour, 400 miles per hour, and 600 miles per hour.

Savings Account In Exercises 24 and 25, 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.

- Solve the equation for r .
- Find the interest rate r for an investment of \$1200 that earned \$66 in interest for one year.

Discounts In Exercises 26 and 27, use the relationship among the sale price S , the list price L , and the discount rate r .

- Solve for r in the formula $S = L - rL$.
- Use the new formula to find the discount rate as a decimal and as a percent.

a. Sale price: \$40	b. Sale price: \$102
List price: \$50	List price: \$120