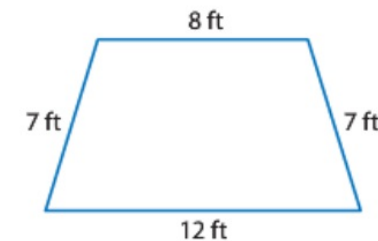


- Evaluate  $x + y^2(2 + x)$  if  $x = 3$  and  $y = -1$ . **8**
- Simplify  $-4(3a + b) - 2(a - 5b)$ .  **$-14a + 6b$**
- MULTIPLE CHOICE** If  $3m + 5 = 23$ , what is the value of  $2m - 3$ ? **B**
  - 105
  - 9
  - $\frac{47}{3}$
  - 6
- Solve  $r = \frac{1}{2}m^2p$  for  $p$ .  **$p = \frac{2r}{m^2}$**

Write an algebraic expression to represent each verbal expression.

- twice the difference of a number and 11  **$2(n - 11)$**
- the product of the square of a number and 5  **$5n^2$**
- Evaluate  $2|3y - 8| + y$  if  $y = 2.5$ . **3.5**
- Solve  $-2b > \frac{18 - b}{5}$ . Graph the solution set on a number line. **See margin.**
- MONEY** Carson has \$35 to spend at the water park. The admission price is \$25 and each soda is \$2.50. Write an inequality to show how many sodas he can buy.  **$35 \geq 25 + 2.50s$**

- GARDENING** Andy is making 3 trapezoidal garden boxes for his backyard. Each trapezoid will be the size of the trapezoid below. He will place stone blocks around the borders of the boxes. How many feet of stones will Andy need? **102 ft**

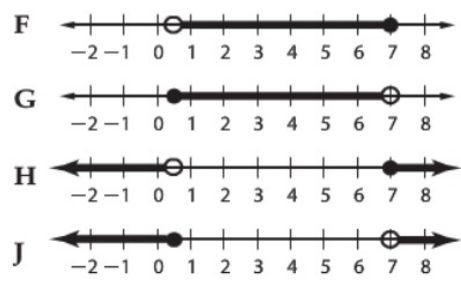


Solve each equation.

- $|x + 4| = 3$   **$\{-7, -1\}$**
- $|3m + 2| = 1$   **$\{-1, -\frac{1}{3}\}$**
- $|3a + 2| = -4$   **$\emptyset$**
- $|2t + 5| - 7 = 4$   **$\{-8, 3\}$**
- $|5n - 2| - 6 = -3$   **$\{-\frac{1}{5}, 1\}$**
- $|p + 6| + 9 = 8$   **$\emptyset$**
- GEOMETRY** The volume of a cylinder is given by the formula  $V = \pi r^2 h$ . What is the volume of a cylinder with a radius of 17 cm and a height of 98 cm? **about 1017.88 cm<sup>3</sup>**

The admission price is \$25 and each soda is \$2.50. Write an inequality to show how many sodas he can buy.  **$35 \geq 25 + 2.50s$**

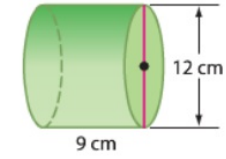
- 10. Solve  $r - 3 < -5$  or  $4r + 1 > 15$ . Graph the solution set. **See margin.**
- 11. Solve  $|p - 4| \leq 11$ . Graph the solution set on a number line. **See margin.**
- 12. **MULTIPLE CHOICE** Which graph represents the solution set for  $4 < 6t + 1 \leq 43$ ? **F**



- 13. **MONEY** Sofia is buying new skis. She finds that the average price of skis is \$500 but the actual price could differ from the average by as much as \$250. Write and solve an absolute value inequality to describe this situation.

**$|p - 500| \leq 250; 250 \leq p \leq 750$**

- 21. **GEOMETRY** The volume of a cylinder is given by the formula  $V = \pi r^2 h$ . What is the volume of the cylinder below? **about  $1017.88 \text{ cm}^3$**



- 22. Solve  $-3b - 5 \geq -6b - 13$ . Graph the solution set on a number line. **See margin.**
- 23. Evaluate  $\frac{3(x + y)}{4xy^2}$  if  $x = \frac{2}{3}$  and  $y = -2$ .  **$-\frac{3}{8}$**
- 24. Name the set(s) of numbers to which  $-\frac{1}{3}$  belongs. **Q, R**

- 25. **MONEY** The costs for making necklaces at two craft stores are shown in the table. For what quantity of beads does The Accessory Store have a better deal? Use the inequality  $15 + 3.25b < 20 + 2.50b$ .

Shop	Cost per Chain	Cost per Bead
The Accessory Store	\$15	\$3.25
Finishing Touch	\$20	\$2.50

**25. When you buy 6 or fewer beads, The Accessory Store is a better deal.**

**Additional Answer**

