

Chapter 2

1. Solve each equation.

a)  $x - 6 = 11$

b)  $7y = -28$

c)  $\frac{4}{3}y = -12$

d)  $4x - 5 = 2x + 7$

e)  $\frac{1}{4}y - \frac{5}{6} = -\frac{1}{6}$

f)  $8(x - 2) = 19 - (x - 3)$

g)  $\frac{3}{4}(7x + 2) = 10$

h)  $4 - 3a = 5(a - 1)$

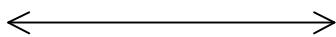
2. Solve the formula for the indicated variable.

a)  $I = Prt$  for  $r$

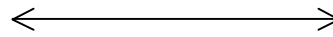
b)  $w = \frac{P + l}{2}$  for  $P$

3. Solve each inequality. Write the answer in set-builder notation, and graph the answer on a number line.

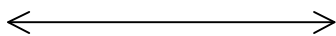
a)  $2x + 8 < 4$



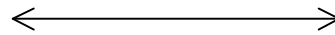
b)  $-\frac{1}{3}y \geq \frac{5}{6}$



c)  $1 - 2x \leq 25 + 4x$



d)  $3 - 8x < 59$



4. Find decimal notation: 157%

5. Find percent notation: 0.023

5. What number is 23% of 30?

7. What percent of 50 is 43?

For Problems 8, 9, and 10 define a variable that represents the unknown quantity and set up an equation. Then solve the equation.

8. The sum of three consecutive page numbers is 99. Find the numbers.

9. The perimeter of a rectangle is 15 in. The length is 1.5 in. more than the width. Find the length and the width of the rectangle.

10. When a school bond issue failed to pass, a city cut its per-student school budget by 8%. The per-student expenditure is now \$6160.32. What was this expenditure before the tax cut?

For Problem 11 define a variable that represents the unknown quantity and set up an inequality. Then solve the inequality.

11. Franklin plans to rent a small camper for a five-day trip to the mountains. The rental cost is \$48.95 per day plus \$0.50 a mile. How many miles can he travel and stay within his \$500 budget?