

1.1 Solving Simple Equations: Solve each equation using inverse operations. Show all steps. Check your answer.

1.  $n + 8 = -10$

2.  $-5y = -12.5$

3.  $x - \frac{3}{4} = \frac{5}{12}$

4.  $n - 2.8 = -4.3$

5.  $\frac{1}{4}n = -6$

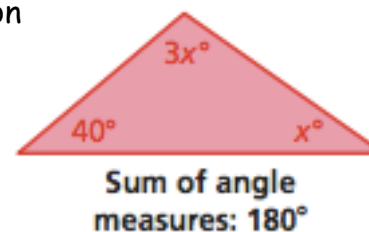
1.2 Solving Multi-Step Equations: Solve each equation using inverse operations. Show all steps. Check your answer.

6.  $-3n - 4 = 8$

7.  $\frac{1}{5}n - 3 + \frac{3}{5}n = 9$

8.  $2(5n + 4) = 38$

9. Write and solve an equation to find  $x$ .



10. You purchase a DVD and two books. The cost of the DVD is \$12.50. Your total bill before tax is \$48.50. Write and solve an equation to find the cost of each book. Let  $n$  = cost of one book

Equation: \_\_\_\_\_

Solution: \_\_\_\_\_

1.3 Solving Equations with Variables on Both Sides: Solve each equation using inverse operations. Show all steps. Check your answer.

11.  $5(n + 6) = 8n$

12.  $\frac{1}{3}(9x + 3) = 3x + 4$

13.  $2(x + 2) = -(-7x + 6)$

14.  $10x - \frac{1}{3} + \frac{5}{6} = 3x + \frac{1}{2} + 7x$

15.  $3(2x - 4) = 8x + 14$

1.4 Rewriting Equations and Formulas: Solve each equation for the variable indicated in bold using inverse operations. Show all steps.

16.  $A = \frac{1}{2}b\mathbf{h}$

17.  $P = 2(a + \mathbf{b})$

18.  $V = l\mathbf{w}h$

19. The distance formula is  $D = rt$

20. Solve for  $y$ :  $3y + 18 = 9x$

a. Solve the formula for  $r$ .

b. Use the new formula to find the rate,

given the distance = 285 miles and time = 4.75 hours