8 Practice • • • • • • • • • • • • Using Simple Equations to Solve Word Problems

Alex has $13.00 to buy a stereo that costs $24.00. How much more money does he need?
Write the equation. Let n = the amount of money.

$$n + 13 = 24$$

Use the axioms of equality:

$$n + 13 = 24$$
$$n + 13 - 13 = 24 - 13$$
$$n = 11$$

Alex needs $11.00 more.

Directions: Use the information on page 33 to help you solve these problems. Write an equation for each word problem using n and solve it.

1. Jimmy is 23 years younger than his mom who is 36 years old. How old is Jimmy?

   Write the equation: _____
   Solve for n: _____
   Answer: _____

2. Albert has 15 CDs. Dianne has 2 more than 4 times as many CDs. How many CDs does Dianne have?

   Write the equation: _____
   Solve for n: _____
   Answer: _____

3. Joe's dad weighs 216 pounds. Joe weighs 122 pounds less than his dad. How much does Joe weigh?

   Write the equation: _____
   Solve for n: _____
   Answer: _____

4. Valerie took 25 shots in a basketball game. She had a 60% shooting percentage. How many shots did she make?

   Write the equation: _____
   Solve for n: _____
   Answer: _____

5. Sherrie's CD played for 22 minutes, which was 7 minutes longer than Matthew's CD. How long did Matthew's CD play?

   Write the equation: _____
   Solve for n: _____
   Answer: _____

6. Jerry read 1,145 words in five minutes. Jonathan read 316 words less in the same time period. How many words did Jonathan read?

   Write the equation: _____
   Solve for n: _____
   Answer: _____

7. Jeremiah rode 88 minutes on his skateboard without falling or getting off. Nick rode only $\frac{3}{4}$ as long. How long did Nick ride?

   Write the equation: _____
   Solve for n: _____
   Answer: _____

Extension

Write a word problem comparing your age to another person's age.

Word Problem: _____

_____

_____

Solve for n: _____

Answer: _____

8 Practice • • • • • • • • • • • • • • • • Using Equations to Solve Word Problems

Ronny's father is 24 years older than Ronny. Their combined age is 46. How old is Ronny? How old is Ronny's father?

Write the equation: Let x stand for Ronny's age. Let $x + 24$ stand for his dad's age.

Equation:

$$x + x + 24 = 46$$
$$2x + 24 = 46$$
$$2x + 24 - 24 = 46 - 24$$
$$2x = 22$$
$$2x \div 2 = 22 \div 2$$
$$x = 11$$

Ronny is 11.

His father is 35.

Directions: Use the information on page 33 to help you solve these word problems. Write an equation for each problem using n and then solve the problem.

1. Sarah's mother is 28 years older than Sarah is. Their combined age is 50. How old is Sarah? How old is her mother?

   Write the equation: _____

   Solve for n: _____

   Answer: _____

2. Joe's dad weighs 140 pounds more than Joe. Their combined weight is 336 pounds. How much does Joe weigh? How much does his dad weigh?

   Write the equation: _____

   Solve for n: _____

   Answer: _____

3. Christina has $22.00 more than 3 times as much money as Melissa has. Together they have $122.00. How much money does each girl have?

   Write the equation: _____

   Solve for n: _____

   Answer: _____

4. In a one-minute time period, Joseph read 2 times as many words as John. Together they read 669 words. How many words did each boy read?

   Write the equation: _____

   Solve for n: _____

   Answer: _____

5. Norman is 4 times as old as his brother Nicholas. Their combined age is 15. How old is each boy?

   Write the equation: _____

   Solve for n: _____

   Answer: _____

6. George has 9 times as many stamps in his collection as Daniel has. Bryan has 2 times as many stamps as Daniel. The combined stamp collection of the three boys is 144. How many stamps does each boy have?

   Write the equation: _____

   Solve for n: _____

   Answer: _____

8 Practice • • • • • • • • • • • • • • • • Using Equations to Solve More Word Problems

Directions: Use the information on page 33 to help you solve these word problems. Write an equation for each problem using *n* and then solve the problem.

1. Fred's dad is 25 years older than Fred. His mother is 23 years older than Fred. The combined age of the three people is 93. How old is Fred? How old is each parent?

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

2. A bike costs $100.00 more than a scooter. A scooter costs $60.00 more than a skateboard. The total cost of the 3 items is $310.00. How much is the skateboard? How much is the scooter? How much is the bike?

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

3. Jimmy's brother is 9 times as old as Jimmy. In 6 years, his brother will be only 3 times as old as Jimmy. How old is each boy?

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

4. Maybelle is 5 years younger than Jesse. Ellen is 2 years older than Jesse. Jeanne is 8 years older than Jesse. The combined age of the four children is 53.

   How old is Jesse? _____ How old is Maybelle? _____

   How old is Ellen? _____ How old is Jeanne? _____

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

5. Elsa had $15.00 more than Joseph. Julian had $10.00 less than Joseph. Martha had $23.00 more than Joseph. Together they had $108.00. How much money did each student have?

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

6. Christina had 2 times as much money as Melissa. Charmain had 4 times as much money as Melissa. Together they had $105.00. How much money did each girl have?

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

7. Matthew had 3 times as much money as Kristin. Joshua had $10.00 less than Matthew did. Altogether they had $74.00. How much money did each person have?

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

8. Kenneth is 8 years older than Andrew. Billy is 3 times as old as Andrew. Cameron is 5 years younger than Andrew. The combined age of the four is 63. How old is each boy?

   Write the equation: _____ Solve for *n*: _____

   Answer: _____

