

9-2

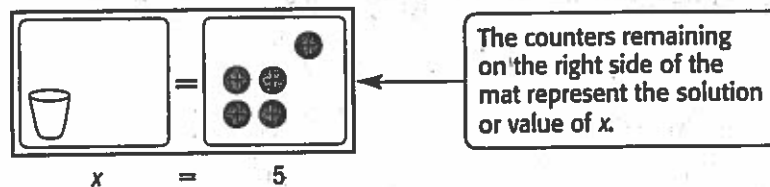
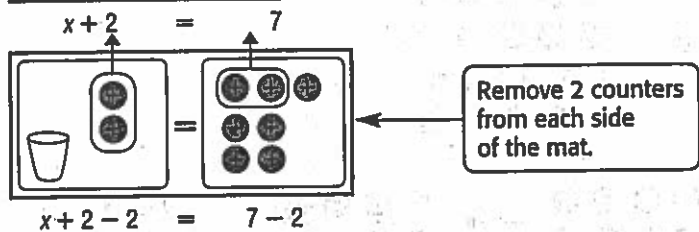
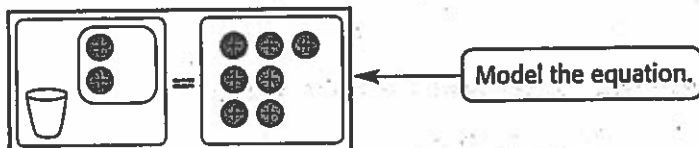
Study Guide and Intervention

Solving Addition Equations

Subtraction Property of Equality If you subtract the same number from each side of an equation, the two sides remain equal.

$$\begin{array}{r} 5 = 5 \\ -3 = -3 \\ \hline 2 = 2 \end{array}$$

EXAMPLE 1 Solve $x + 2 = 7$ using models.



The solution is 5. $5 + 2 = 7$ ✓
5 substituted in the original equation is correct.

EXAMPLE 2 Solve $b + 3 = 2$.

$b + 3 = 2$	Write the equation.
$-3 = -3$	Subtract 3 from each side to undo the addition of 3 on the left.
$b + 0 = -1$	Simplify.
$b = -1$	

The solution is -1 .

Check	$b + 3 = 2$	Write the original equation.
	$-1 + 3 \stackrel{?}{=} 2$	Replace b with -1 .
	$2 = 2$ ✓	This sentence is true.

EXERCISES

Solve each equation. Use models if necessary. Check your solution.

1. $a + 1 = 7$

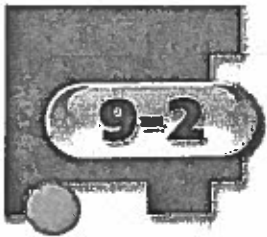
2. $3 + b = 8$

3. $c + 7 = 4$

4. $9 = x + 4$

5. $g + 8 = -2$

6. $d + 6 = -5$

**9-2****Practice: Word Problems****Solving Addition Equations**

<p>1. BIRTHDAYS Alberto's birthday is 7 days after Corey's birthday. Alberto's birthday is on the 9th. Write and solve an equation to find the day of Corey's birthday.</p>	<p>2. AGE Jason and Megan are brother and sister. Jason is 4 years older than Megan. If Jason is 16 years old, write and solve an equation to find Megan's age.</p>
<p>3. PAPER AIRPLANES Rebecca and Ricardo are both testing their paper airplanes. Rebecca's plane flew 6 feet further than Ricardo's plane. If Rebecca's plane flew 10 feet, write and solve an equation to find how far Ricardo's plane flew.</p>	<p>4. BASEBALL CARDS Ren and Chet have just started collecting baseball cards. Ren has 13 more baseball cards than Chet. Ren has 27 cards. Write and solve an equation to find how many baseball cards Chet has.</p>
<p>5. SKATING Susan and Ruby went skating. Ruby skated 30 minutes longer than Susan. If Ruby skated for 45 minutes, write and solve an equation to find how long Susan skated.</p>	<p>6. STUNT FLYER A stunt airplane is flying at 150 feet. It ascends to 325 feet. Write and solve an equation to find the change in altitude of the airplane.</p>
<p>7. SAVINGS Oscar is saving money to buy a jacket that costs \$47. He has already saved \$25. Write and solve an equation to find how much more money Oscar needs to save.</p>	<p>8. RECYCLING Bonnie has 27 more cans than Jackie. If she has 56 cans, write and solve an equation to find how many cans Jackie has.</p>