Lesson 5.5 Solving 1-Step Equations: Addition & Subtraction

Subtraction Property of Equality

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

$$x + 12 = 20$$

To undo the addition of 12, subtract 12.

$$x + 12 - 12 = 20 - 12$$
$$x + 0 = 8$$
$$x = 8$$

Addition Property of Equality

If you add the same number to each side of an equation, the two sides remain equal.

$$n - 3 = 15$$

To undo the subtraction of 3, add 3.

$$n - 3 + 3 = 15 + 3$$
$$n - 0 = 18$$
$$n = 18$$

Write the operation that would undo the operation in the equation.

	a	**b**
1.	$x - 4 = 3$ _____	$8 = b + 4$ _____
2.	$y + 7 = 25$ _____	$3 = a - 7$ _____

Solve each equation.

	a	**b**	**c**
3.	$a - 4 = 2$ _____	$y + 5 = 9$ _____	$x - 3 = 14$ _____
4.	$7 = x - 4$ _____	$b + 7 = 19$ _____	$y + 5 = 5$ _____
5.	$z - 7 = 5$ _____	$m - 5 = 5$ _____	$n + 1 = 1$ _____
6.	$x + 7 = 10$ _____	$x - 3 = 18$ _____	$x + 0 = 9$ _____
7.	$b + 4 = 4$ _____	$b - 8 = 12$ _____	$n + 8 = 12$ _____
8.	$z - 10 = 20$ _____	$z + 5 = 20$ _____	$x - 2 = 8$ _____

Write and solve the equation for each problem below.

9. Kelley went to the movies. She took 20 dollars with her. When she came home, she had 6 dollars. How much money did she spend? _____

9.

10. There are 27 students in Mrs. Yuen's homeroom. Twelve of them have home computers. How many students do not have home computers?

_____

10.

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Solve each equation.

	a	**b**	**c**
1.	$9 + d = 16$ _____	$y + 3 = 9$ _____	$12 + a = 27$ _____
2.	$18 - b = 4$ _____	$23 - c = 21$ _____	$w - 11 = 11$ _____
3.	$n + 8 = 41$ _____	$7 + m = 20$ _____	$9 + s = 9$ _____
4.	$t - 18 = 5$ _____	$36 - a = 36$ _____	$15 - b = 0$ _____
5.	$17 = c + 3$ _____	$29 = 5 + b$ _____	$36 = 35 + n$ _____
6.	$2 = d - 4$ _____	$19 = 25 - a$ _____	$12 = t - 12$ _____

Write an equation for each problem. Then, solve the equation.

7. Ruben read 37 pages in his history book over the weekend. He read 21 pages on Saturday. How many pages did he read on Sunday?

_____ He read _____ pages on Sunday.

8. The Garcias ate 9 pieces of toast for breakfast. If there are 33 slices of bread left, how many slices were in the loaf of bread?

_____ There were _____ slices in the loaf of bread.

9. In a 25-kilometer triathlon, competitors swim 2 kilometers, run 5 kilometers, and bike the rest. How far do they bike?

_____ They bike _____ kilometers.