

## LESSON

**Practice B****2-4 Solving Equations with Variables on Both Sides**

Solve each equation. Check your answers.

1.  $3d + 8 = 2d - 17$

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2.  $2n - 7 = 5n - 10$

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3.  $p - 15 = 13 - 6p$

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4.  $-t + 5 = t - 19$

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5.  $15x - 10 = -9x + 2$

\_\_\_\_\_

6.  $1.8r + 9 = -5.7r - 6$

\_\_\_\_\_

7.  $2y + 3 = 3(y + 7)$

\_\_\_\_\_

8.  $4n + 6 - 2n = 2(n + 3)$

\_\_\_\_\_

9.  $6m - 8 = 2 + 9m - 1$

\_\_\_\_\_

10.  $-v + 5 + 6v = 1 + 5v + 3$

\_\_\_\_\_

11.  $2(3b - 4) = 8b - 11$

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12.  $5(r - 1) = 2(r - 4) - 6$

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Answer each of the following.

13. Janine has job offers at two companies. One company offers a starting salary of \$28,000 with a raise of \$3000 each year. The other company offers a starting salary of \$36,000 with a raise of \$2000 each year.

a. After how many years would Janine's salary be the same with both companies?

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b. What would that salary be?

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14. Xian and his cousin both collect stamps. Xian has 56 stamps, and his cousin has 80 stamps. Both have recently joined different stamp-collecting clubs. Xian's club will send him 12 new stamps per month, and his cousin's club will send him 8 new stamps per month.

a. After how many months will Xian and his cousin have the same number of stamps?

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b. How many stamps will that be?

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