

LESSON
7-1

Equations with the Variable on Both Sides

Practice and Problem Solving: D

Use algebra tiles to model and solve each equation. The first one is done for you.

1. $x + 2 = 2x - 1$



$x = 3$

2. $2x - 1 = x - 3$

Fill in the boxes to solve each equation. The first one is done for you.

3. $7y + 1 = 3y + 13$

$$\begin{array}{r} -[3y] \quad -3y \\ \hline 4y + 1 = 13 \\ -1 \quad -[1] \\ \hline 4y = [12] \\ \frac{4y}{4} = \frac{[12]}{[4]} \\ y = [3] \end{array}$$

4. $4w + 3 = 2w + 7$

$$\begin{array}{r} -[] \quad -2w \\ \hline 2w + 3 = 7 \\ -3 \quad -[] \\ \hline 2w = [] \\ \frac{2w}{2} = \frac{[]}{[]} \\ w = [] \end{array}$$

5. $-2r + 4 = -3r + 9$

$$\begin{array}{r} +[] \quad +3r \\ \hline r + 4 = 9 \\ -[] \quad -4 \\ \hline r = [] \end{array}$$

Solve. The first one is done for you.

6. $2y + 1 = 3y - 5$

$$\begin{array}{r} -2y \quad -2y \\ \hline 1 = y - 5 \\ +5 \quad +5 \\ \hline 6 = y \\ y = 6 \end{array}$$

7. $4x + 6 = -x + 1$

8. $-2y + 3 = 8y - 7$

Write an equation to represent each relationship. Then solve the equation. The first one is done for you.

9. Four times a number minus 5 is the same as twice the number plus 3.

$4n - 5 = 2n + 3; n = 4$

10. Seven minus 2 times a number is the same as the number minus 2.

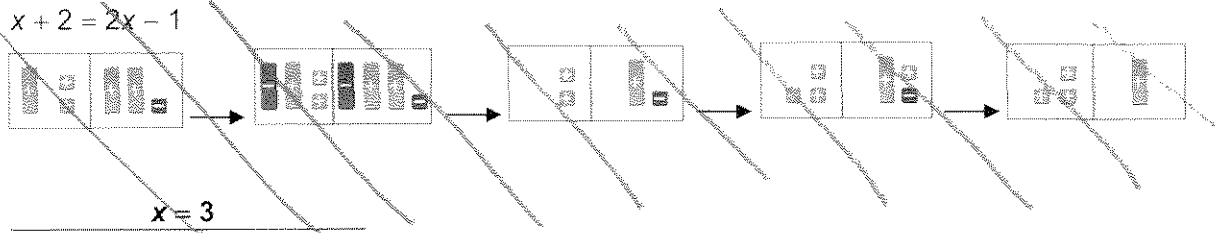
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Equations with the Variable on Both Sides

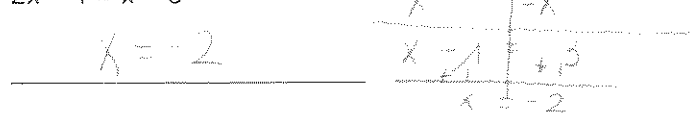
Practice and Problem Solving: D

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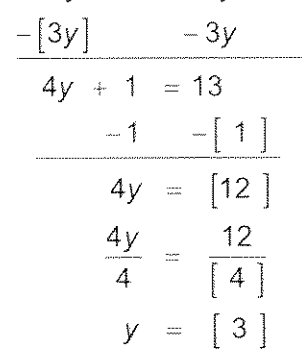


2. $2x - 1 = x - 3$

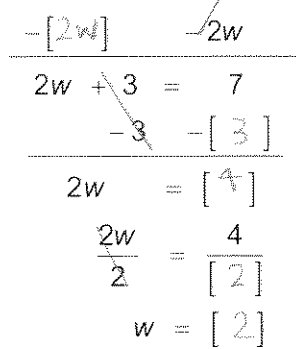


Fill in the boxes to solve each equation. The first one is done for you.

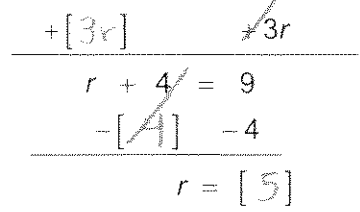
3. $7y + 1 = 3y + 13$



4. $4w + 3 = 2w + 7$

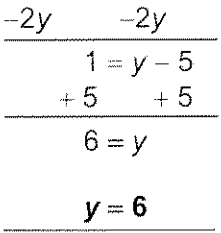


5. $-2r + 4 = -3r + 9$

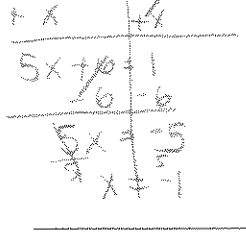


Solve. The first one is done for you.

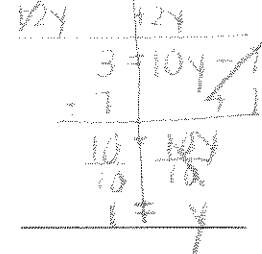
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8. $-2y + 3 = 8y - 7$



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