

Solving Multistep Equations with the Distributive Property

Directions: Find the solution for each equation.

1) $x + 9(x - 2) = -5 + 5x - 3$ 2) $3(r + 2) - 5 = 4(r + 2)$ 3) $-(1 - 4g) + 10 - g = 2(g + 3)$

4) $-2(x + 9) = -(6 - 5x) + 2x$ 5) $7(x + 4) - 2x = 10 + (4x - 2)$ 6) $8 - (3 + 5x) = 7(2 + 5x)$

Directions: Each problem has been incorrectly solved for the variable x. Identify which step the mistake was made and complete the problem to correctly solve for x. Solve the equations correctly below.

<p>7)</p> <p>(step1) $-3(x + 7) = 8 - (2x + 4)$</p> <p>(step2) $-3x + 7 = 8 - 2x - 4$</p> <p>(step3) $-3x + 7 = 4 - 2x$</p> <p>(step4) $x + 7 = 4$</p> <p>(step5) $x = -3$</p>	<p>8)</p> <p>(step1) $5(x - 3) = 2(x + 9) - 8$</p> <p>(step2) $5x - 15 = 2x + 18 - 8$</p> <p>(step3) $5x - 15 = 2x + 10$</p> <p>(step4) $3x - 15 = 10$</p> <p>(step5) $3x = 5$</p> <p>(step6) $x = \frac{5}{3}$ or $1\frac{2}{3}$</p>	<p>9)</p> <p>(step1) $-3(6x + 1) - 9 = -4(3x - 2)$</p> <p>(step2) $-24x - 3 - 9 = -12x + 8$</p> <p>(step3) $-24x - 12 = -12x + 8$</p> <p>(step4) $-36x = 20$</p> <p>(step5) $x = 20 / -36 = -5/9$</p> <p>(step6) $x = -5/9$</p>
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The mistake is in step _____ The mistake is in step _____ The mistake is in step _____

The correct answer is x = _____ The correct answer is x = _____ The correct answer is x = _____

Explain the steps used to solve the equation below. Be specific!

10) $-(-x + 5) - 8x = -29 - 5x$