

Algebra I Worksheet #9 Unit 2 Selected Solutions

Solve the following equations. Show your steps neatly organized.

The SID Method

5. $x + 3(2x - 3) = 12$

Simplify $\left\langle \begin{array}{l} x + 6x - 9 = 12 \\ 7x - 9 = 12 \\ \quad +9 \quad +9 \\ \hline 7x = 21 \\ \quad 7 \quad 7 \\ \hline x = 3 \end{array} \right.$

Isolate

Divide

7. $3(x + 6) + 2(x - 7) = 39$

Simplify $\left\langle \begin{array}{l} 3x + 18 + 2x - 14 = 39 \\ 5x + 4 = 39 \\ \quad -4 \quad -4 \\ \hline 5x = 35 \\ \quad 5 \quad 5 \\ \hline x = 7 \end{array} \right.$

Isolate

Divide

15. $6(x - 5) = 3(x + 1)$

Simplify $\left\langle \begin{array}{l} 6x - 30 = 3x + 3 \\ \quad -3x \quad -3x \\ \hline 3x - 30 = 3 \\ \quad +30 \quad +30 \\ \hline 3x = 33 \\ \quad 3 \quad 3 \\ \hline x = 11 \end{array} \right.$

Isolate

Divide

17. $6(2x + 3) - 2x = 7(x + 8) - 5$

Simplify $\left\langle \begin{array}{l} 12x + 18 - 2x = 7x + 56 - 5 \\ 10x + 18 = 7x + 51 \\ \quad -7x \quad -7x \\ \hline 3x + 18 = 51 \\ \quad -18 \quad -18 \\ \hline 3x = 33 \\ \quad 3 \quad 3 \\ \hline x = 11 \end{array} \right.$

Isolate

Divide