

Starter

Solve.

$$1) \frac{x}{3} = -2 \cdot 3$$

$$x = -6$$

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1. Undo + / -
2. Undo \cdot / \div

$$2) -3 - 2x = 10$$

$$-2x = 13$$

$$x = -6.5$$

1)

$$-5(4x - 2) = 2(3 + 6x)$$

$$\begin{array}{r} -20x + 10 \\ +20x \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} -6 - 12x \\ +20x \\ \hline \end{array}$$

$$\begin{array}{r} -6 + 8x \\ +6 \\ \hline \end{array}$$

$$\frac{16}{8} = \frac{8x}{8}$$

$$2 = x$$

2)

$$8(1+5x) = 13 + 5x - 5$$

$$\begin{array}{r} 8 + 40x \\ -5x \\ \hline 8 + 35x \end{array} = \begin{array}{r} 5x + 8 \\ -5x \\ \hline 8 \end{array}$$

$$\begin{array}{r} 8 + 35x \\ -8 \\ \hline 35x \end{array} = \begin{array}{r} 8 \\ -8 \\ \hline 0 \end{array}$$

$$\frac{35x}{35} = \frac{0}{35}$$

$$x = 0$$

3)

$$-8(-8x-6) = 2(3x+11)$$

$$\begin{array}{r} 64x + 48 \\ +6x \\ \hline 70x + 48 \\ -48 \\ \hline 70x \end{array} = \begin{array}{r} -6x - 22 \\ +6x \\ \hline -22 \\ -48 \\ \hline -70 \end{array}$$

$$\frac{70x}{70} = \frac{-70}{70}$$

$$x = -1$$

4)

$$5y - 8(1 + 7y) = -16 + 8$$

$$5y - 8 - 56y = -8$$

$$-8 - 51y = -8$$

$$\begin{array}{r} +8 \\ \hline \end{array} \quad \begin{array}{r} -8 \\ +8 \\ \hline \end{array}$$

$$-51y = 0$$

$$\frac{-51y}{-51} = \frac{0}{-51}$$

$$y = 0$$

Algebra 1: 3.4 Solving Equations Homework

Solve the Equation. Show all Steps!!!

1. $4x - 6 = x + 9$

2. $4 - 7x = 1 - 6x$

3. $-4x - 3 = -6x + 9$

4. $41 - 2n = 2 + n$

5. $6(2 + y) = 3(3 - y)$

6. $4y = 2(y - 5) - 2$

7. $6x - 9x - 4 = -2x - 2$

8. $-2(2x + 3) = -4(x + 1) - 2$

9. $3 - 6a = 9 - 6a$

10. $-9x + 6 = -x + 4$