

Warm up:

Solve.

1) $-4 + 9(3x - 1) = 8$

$$\underline{-4} + 27x \underline{-9} = 8$$

$$\begin{array}{r} 27x - 13 = 8 \\ +13 \quad +13 \\ \hline 27x = 21 \\ 27 \quad 27 \end{array}$$

$$x = \frac{21}{27} = \left(\frac{7}{9}\right)$$

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

$$\underline{x} - \underline{4x} + \underline{4} - \underline{2x} - \underline{3} = -2$$

$$\underline{-5x} + \underline{1} = \underline{-2}$$

$$\underline{-5x} = \underline{-3}$$

$$\underline{x} = \underline{\frac{3}{5}}$$

$$\frac{18}{12}$$

HW Solutions

1) $\frac{3}{2}$

6) $\frac{27}{2}$

2) $\frac{2}{3}$

7) $\frac{5}{7}$

3) $\frac{8}{9}$

8) $-\frac{34}{19}$

4) 11

9) $-\frac{39}{8}$

5) $\frac{17}{14}$

10) -12

$$\textcircled{2} \quad \begin{array}{r} -2 + 6x + 6 - 9x = 2 \\ \hline \hline \end{array}$$

$$\begin{array}{r} -3x + 4 = 2 \\ \hline \end{array}$$

$$\begin{array}{r} -3x = -2 \\ \hline \end{array}$$

$$\begin{array}{r} x = \frac{2}{3} \end{array}$$

$$\textcircled{5} \quad -10 + 4(7x - 8) = -8$$

$$\underline{-10} + 28x - \underline{32} = -8$$

$$28x - 42 = -8$$

$$\begin{array}{r} 28x - 42 = -8 \\ \hline 28x = 34 \\ \hline 28 \quad 28 \\ \hline x = \frac{17}{14} \end{array}$$

$$\textcircled{a} \quad -x - 6(x-1) = 1$$

$$\underline{-x} - \underline{6x} + 6 = 1$$

$$\begin{array}{r} -7x + 6 = 1 \\ -6 \quad -6 \\ \hline \end{array}$$

$$\begin{array}{r} -7x = -5 \\ \hline \end{array}$$

$$\textcircled{x = \frac{5}{7}}$$

$$\textcircled{8} \quad -4x - 3(5x + 12) = -2$$

$$\underline{-4x - 15x - 36} = -2$$

$$\begin{array}{r} -19x - 36 = -2 \\ +36 \quad +36 \end{array}$$

$$\begin{array}{r} -19x = 34 \\ \hline -19 \quad -19 \end{array}$$

$$\textcircled{x = -\frac{34}{19}}$$

$$\textcircled{10} \quad \therefore (x+2) - 5(2x-3) + 2(4x-8) = 13$$
$$\underline{x+2} \quad \underline{-10x+15} \quad \underline{+8x-16} = 13$$

$$\begin{array}{r} -x + 1 = 13 \\ \quad \quad \quad -1 \quad -1 \\ \hline -x = 12 \\ \quad \quad \quad -1 \quad -1 \\ \hline \textcircled{x = -12} \end{array}$$

$$\textcircled{9} \quad -3 + 5(2x - 3) - 6(3x + 4) = -3$$

$$\underline{-3} + \underline{10x} - \underline{15} - \underline{18x} - \underline{24} = -3$$

$$\begin{array}{r} -8x - 42 = -3 \\ +42 \quad +42 \end{array}$$

$$\begin{array}{r} -8x = 39 \\ \underline{-8} \quad \underline{-8} \end{array}$$

$$\textcircled{x = -\frac{39}{8}}$$

$$\textcircled{3} \quad \underline{-6x+4-3x-8 = -12}$$

$$\begin{array}{r} -9x - 4 = -12 \\ \quad +4 \quad +4 \end{array}$$

$$\begin{array}{r} \hline -9x = -8 \\ \hline \quad -9 \quad -9 \end{array}$$

$$\begin{array}{r} \hline \hline x = \frac{8}{9} \end{array}$$

$$\textcircled{4} \quad 4 + 3(-x + 4) = -11$$

$$\underline{4} - 3x + \underline{18} = -11$$

$$\begin{array}{r} -3x + 22 = -11 \\ -22 \quad -22 \end{array}$$

$$\hline \begin{array}{r} -3x = -33 \\ \hline -3 \quad -3 \end{array}$$

$$\hline \textcircled{x = 11}$$

Educreations Presentations

4 points

4 - accurately solved a multi-step equation which incorporated the distributive property and negative numbers

3 - minor calculation errors, missed one of the criteria

2 - several calculation errors, missed more than one of the criteria

1 - major errors, missing more than one of the criteria

