

HW: Simplifying Expressions Worksheet

Warm up:

Simplify.

1) $6n + 9n$

$15n$

2) $4s - 8s + 3s$

$-s$

3) $x + 10x - 6x$

$5x$

4) $3x + 5 - 7x$

$-4x + 5$

$3 - 7$
 $3 + (-7)$

$4 - 8$
 $4 + (-8)$
 $-4s + 3s$
 $-1s$

$$\underline{4x - 8} + \underline{2x + 9}$$

$$6x + 1$$

$$1 + 6x$$

$$\begin{array}{l} 5 + 2(x + 3) \\ 5 + 2x + 6 \\ 2x + 11 \end{array}$$

$$3 - 4(x + 5)$$

$$\underline{3} - 4x - \underline{20}$$

$$\underline{-17 - 4x}$$

$$-5 - (3x - 7) + 5(2x - 3)$$

$$\underline{-5} - 3x + \underline{7} + \underline{10x} - \underline{15}$$

$$7x - 13$$

$$2 - 15$$

$$\vdots (3x - 4) + 2(6x + 2) - 3(5 - 3x)$$

$$\underline{3x} - 4 + \underline{12x} + \underline{4} - 15 + \underline{9x}$$

$$\underline{24x - 15}$$

$$\textcircled{29} \quad -21 = \underline{9a} - 15 - \underline{3a}$$

$$\begin{array}{r} -21 = 6a - 15 \\ +15 \qquad \qquad +15 \\ \hline -6 = 6a \\ \underline{\quad} \quad \underline{\quad} \\ -6 \qquad \quad 6 \\ \hline -1 = a \end{array}$$

(30)

$$-4 \frac{1}{s} = \frac{6}{s} (1 + 1)$$

$$- \frac{1}{s^2}$$

$$-4 \frac{1}{s^2} = \frac{6}{s} + \frac{6}{s^2}$$

$$- \frac{1}{s^2}$$

$$- \frac{1}{s^2}$$

$$\frac{6}{s} + \frac{6}{s} + \frac{6}{s^2} + \frac{6}{s^2}$$

$$\frac{1}{s^2} = \frac{1}{s} + \frac{1}{s^2}$$

$$\begin{array}{r} \textcircled{21} \quad 13 - 3d = -8 \\ -13 \quad \quad -13 \\ \hline -3d = -21 \\ \hline -3 \quad \quad -3 \\ \hline d = 7 \end{array}$$

$$\textcircled{1} \quad \begin{array}{r} 272 = 816 - 34m \\ -816 \quad -816 \\ \hline \end{array}$$

$$\begin{array}{r} -544 = -34m \\ \hline -34 \quad -34 \\ \hline \end{array}$$

$$16 = m$$

16 payments

$$\begin{array}{r} 816 \\ -272 \\ \hline 544 \end{array}$$

$$1 = 4\frac{1}{2} - 2p + \frac{10}{3}p$$

$$-\frac{6}{3} + \frac{10}{3}$$

$$\frac{2}{2} \quad 1 = 4\frac{1}{2} + \frac{4}{3}p$$

$$\frac{-1}{2} - 4\frac{1}{2} - 4\frac{1}{2}$$

$$\frac{3}{4} \left(-\frac{7}{2} \right) = \left(\frac{4}{3}p \right) \frac{3}{4}$$

$$-\frac{21}{8} = p$$

$$\textcircled{1} \quad 33.25 = \underline{6.50p} - \underline{1.75p}$$

$$\begin{array}{r} 33.25 = 4.75p \\ \hline 4.75 \quad 4.75 \end{array}$$

$$7 = p$$

7 people

$$1) -5x + 2x + 7 - 3x$$

$$2) 4 - 2x + 5 + 7x$$

$$3) -3 + (x + 20) - (x + 3)$$

$$4) 2x - 3(7 - 2x) + 2(3 - x)$$

$$5) 5 - 2(-3 - 2x) + (x - 5)$$

$$6) (4x + 5) - (2x - 3) + (6x - 1)$$

$$1) \underline{-5x} + \underline{2x} + 7 - 3x$$

$$\textcircled{-6x + 7}$$

$$2) \underline{4} - \underline{2x} + \underline{5} + \underline{7x}$$

$$5x + 9$$

$$3) -3 + (x + 20) - (x + 3)$$

$$-3 + \underline{x} + 20 - \underline{x} - 3$$

$$\textcircled{14}$$

$$4) 2x - 3(7 - 2x) + 2(3 - x)$$

$$5) 5 - 2(-3 - 2x) + (x - 5)$$

$$6) (4x + 5) - (2x - 3) + (6x - 1)$$

$$12x - 7 + 3x$$

$$-2 + 5x - 9$$

$$-7x + 6 - 3x - 8$$

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

$$-1 + 5(6x - 3)$$

$$5 - x - 3(2x + 7)$$

$$8x + 5 - 12x - 7$$

$$6x - 7(2x + 9)$$

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

$$(2x - 1) + 3(7 - 3x) - 2(3x + 9)$$

$$-3 - (5x + 7)$$

