

HW: Worksheet

Warm up:

Evaluate.

$$1) \quad -6 \div \frac{5}{4} = -\frac{6}{1} \cdot \frac{4}{5} = -\frac{24}{5} = \left(-4\frac{4}{5}\right)$$

$$2) \quad 2 + \left(-3\frac{7}{8}\right) = \frac{2}{1} + \left(-\frac{31}{8}\right) = \frac{16}{8} + \left(-\frac{31}{8}\right) = -\frac{15}{8} = \left(-1\frac{7}{8}\right)$$

$$3) \quad -5 - \left(-1\frac{2}{3}\right) = -\frac{5}{1} + \frac{5}{3} = -\frac{15}{3} + \frac{5}{3} = -\frac{10}{3} = \left(-3\frac{1}{3}\right)$$

$$-5 + 1\frac{2}{3} = \left(-3\frac{1}{3}\right)$$

HW Solutions

$$\textcircled{1} \quad 2.5x - 6.2 = 11.3$$
$$\quad \quad \quad +6.2 \quad +6.2$$

$$\hline 2.5x = 17.5$$
$$\frac{2.5}{2.5} \quad \frac{17.5}{2.5}$$

$$\hline \hline \textcircled{x = 7}$$

$$25 \overline{)175}$$
$$\underline{-175}$$
$$0$$

$$\textcircled{4} \quad \begin{array}{r} -8.62 = 5.4 - b \\ -5.4 \quad -5.4 \\ \hline \end{array}$$

$$\begin{array}{r} -14.02 = -b \\ -1 \quad -1 \\ \hline \end{array}$$

$$\begin{array}{r} -8.62 - 5.4 \\ -8.62 + (-5.4) \end{array}$$

$$\begin{array}{r} 8.62 \\ + 5.40 \\ \hline 14.02 \end{array}$$

$$\textcircled{14.02 = b}$$

$$\textcircled{3} \quad \begin{array}{r} -3.1 = 4.73 - \frac{r}{2.9} \\ -4.73 \quad -4.73 \\ \hline \end{array}$$

$$-2.9(-7.83) = \left(-\frac{r}{2.9}\right)(-2.9)$$

$$\textcircled{22.707 = r}$$

$$\begin{array}{r} 7.83 \\ \times 2.9 \\ \hline 17047 \\ 15660 \\ \hline 22707 \end{array}$$

$$\begin{aligned} \textcircled{2} \quad & -7.4 = -5.2 + 2x \\ & +5.2 \quad +5.2 \\ & \hline & -2.2 = \frac{2x}{2} \\ & \hline & -1.1 = x \end{aligned}$$

$$\textcircled{6} \quad \begin{array}{r} -1.7 - 3.6c = -26.18 \\ +1.7 \qquad \qquad \qquad +1.7 \end{array}$$

$$\begin{array}{r} 26.18 \\ - 1.70 \\ \hline 24.48 \end{array} \quad \begin{array}{r} -3.6c = -24.48 \\ \hline -3.6 \qquad \qquad \hline -3.6 \end{array}$$

$$c = 6.8$$

$$\begin{array}{r} 6.8 \\ 36 \overline{) 244.8} \\ \underline{-216} \downarrow \\ 288 \\ \underline{-288} \\ 0 \end{array} \quad \begin{array}{r} 3 \quad 4 \\ 36 \quad 36 \\ \times 4 \quad \times 8 \\ \hline 216 \quad 288 \end{array}$$

$$8 = -2 + \frac{3}{4}x$$

$$\frac{3}{4}(10) = \left(\frac{3}{4}x\right) \frac{4}{4}$$

$$\frac{30}{4} = x$$

$$13\frac{1}{3} = x$$

$$10 \cdot \frac{3}{4}$$

$$\frac{10 \cdot 4}{3}$$

$$\frac{10}{\frac{3}{4}} = \frac{\frac{3}{4}x}{\frac{3}{4}}$$

$$-\frac{5}{6}x + \frac{2}{3} = 7$$

$7 - \frac{2}{3} = \frac{19}{3}$
 $\frac{19}{3} - \frac{2}{3} = \frac{17}{3}$
 $\frac{17}{3} \cdot \frac{6}{6} = \frac{38}{3}$

$$-\frac{5}{6} \left(-\frac{5}{6}x \right) = \left(\frac{19}{3} \right) \left(-\frac{5}{6} \right)^2$$

$$x = -\frac{38}{5} = \frac{-73}{5}$$

$$\frac{1}{3}x - 4\frac{1}{5} = -3$$

$$+4\frac{1}{5} \quad +4\frac{1}{5}$$

$$\begin{array}{r} -3 + 4\frac{1}{5} \\ -\frac{3}{1} + \frac{21}{5} \\ -\frac{15}{5} + \frac{21}{5} \\ \hline \frac{6}{5} \end{array}$$

$$\frac{3}{1} \left(\frac{1}{3}x \right) = \left(\frac{6}{5} \right) \frac{3}{1}$$

$$x = \frac{18}{5} = \left(3\frac{3}{5} \right)$$

$$1) 6 = 3 - x$$

$$4) 5 - \frac{n}{4} = -17$$

$$2) -4 + \frac{3}{5}x = -9$$

$$5) \frac{2}{9} = 4\frac{1}{3} - \frac{1}{2}x$$

$$3) -\frac{4}{9} = 7 - \frac{5}{6}x$$

$$\begin{array}{r} 1) \quad 6 = 3 - x \\ \quad \quad \underline{-3 \quad -3} \\ \quad \quad 3 = -x \\ \quad \quad \underline{-1 \quad -1} \\ \quad \quad \underline{-3 = x} \end{array}$$

$$2) \quad -4 + \frac{3}{5}x = -9$$

$$\begin{array}{r} +4 \qquad \qquad +4 \\ \hline \frac{5}{3} \left(\frac{3}{5}x \right) = (-5) \frac{5}{3} \end{array}$$

$$x = -\frac{25}{3} = -8\frac{1}{3}$$

$$\begin{array}{l}
 -\frac{4}{9} - \frac{7}{1} \\
 -\frac{4}{9} - \frac{63}{9} \\
 -4 - 63 \\
 -4 + (-63)
 \end{array}
 \quad
 \begin{array}{l}
 3) \quad -\frac{4}{9} = 7 - \frac{5}{6}x \\
 \quad \quad \quad \rightarrow \quad \rightarrow \\
 \quad \quad \quad \overline{-\frac{67}{9}} \\
 \quad \quad \quad -\frac{5}{9} \left(-\frac{67}{9} \right) = \left(-\frac{5}{6}x \right) \left(-\frac{6}{5} \right) \\
 \quad \quad \quad \frac{134}{9} = x \\
 \quad \quad \quad \frac{134}{15} = x \\
 \quad \quad \quad \frac{814}{15} = x
 \end{array}$$

$$4) \quad 5 - \frac{n}{4} = -17$$

$$\begin{array}{r} -5 \qquad -5 \\ \hline \end{array}$$

$$-4 \left(-\frac{n}{4} \right) = (-22) (-4)$$

$$n = 88$$

$$\frac{2}{9} - \frac{13}{3}$$

$$\frac{2}{9} - \frac{39}{9}$$

$$- \frac{37}{9}$$

$$5) \frac{2}{9} = 4\frac{1}{3} - \frac{1}{2}x$$

$$-4\frac{1}{3} \quad -4\frac{1}{3}$$

$$-\frac{2}{1} \left(-\frac{37}{9} \right) = \left(-\frac{1}{2} \right) \left(-\frac{2}{1} \right)$$

$$\frac{74}{9} = x$$

$$8\frac{2}{9} = x$$

