

HW: Worksheet/1-8

Warm up: Survey

$$4) (-2) = \left(\frac{h}{6}\right) \circ \quad \text{O} \quad -12 = h$$

2) Solve using the elimination method.

$$-3n + 9m = 6$$

$$+ (3n + 4m = 7)$$

$$\hline 13m = 13$$

$$\frac{13}{13} = \frac{13}{13}$$

$$m = 1$$

$$\begin{array}{r} 3n + 4 = 7 \\ -4 \quad -4 \\ \hline 3n = 3 \\ \frac{3}{3} = \frac{3}{3} \\ n = 1 \end{array}$$

$$\begin{array}{l} m = 1 \\ n = 1 \end{array}$$

$$2x + 1 = 7$$

$$\times 2 \quad \times 2$$

$$4x + 2 = 14$$

$$2(4x - 5y) = (23)2$$

$$3x + 10y = 31$$

$$+ \begin{array}{r} 8x - 10y = 46 \\ 3x + 10y = 31 \end{array}$$

$$\begin{array}{r} 11x = 77 \\ \hline 11 \quad 11 \end{array}$$

$$x = 7$$

$$\begin{array}{r} x = 7 \\ y = 1 \end{array}$$

$$\begin{array}{r} 3(7) + 10y = 31 \\ 21 + 10y = 31 \\ -21 \quad -21 \\ \hline 10y = 10 \\ \frac{10y}{10} = \frac{10}{10} \\ y = 1 \end{array}$$

$$3(2x + y) = (8)3$$

$$2(3x - 2y) = (5)2$$

$$\begin{array}{r} 6x + 3y = 24 \\ - (6x - 4y = 10) \end{array}$$

$$\begin{array}{r} 7y = 14 \\ \hline y = 2 \end{array}$$

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

$$\begin{array}{r} 2x + 2 = 8 \\ - 2 \quad - 2 \\ \hline 2x = 6 \\ \hline x = 3 \end{array}$$

$$5(3a + 4b) = (2)5$$

$$3(5a + 9b) = (1)3$$

$$15a + 20b = 10$$

$$- (15a + 27b = 3)$$

$$\underline{-7b = 7}$$

$$\underline{-7 \quad -7}$$

$$b = -1$$

$$a = 2$$

$$b = -1$$

$$3a + 4(-1) = 2$$

$$3a - 4 = 2$$

$$+4 \quad +4$$

$$\underline{3a = 6}$$

$$\underline{3 \quad 3}$$

$$a = 2$$

$$5(5p - 2q) = (1)5$$

$$2(4p + 5q) = (47)2$$

$$\begin{array}{r} 25p - 10q = 5 \\ + (8p + 10q = 94) \end{array}$$

$$\begin{array}{r} 47 \\ \times 2 \\ \hline 94 \end{array}$$

$$\begin{array}{r} 33p = 99 \\ \hline p = 3 \end{array}$$

$$\begin{array}{l} p = 3 \\ q = 7 \end{array}$$

$$\begin{array}{r} 15 - 2q = 1 \\ -15 \quad -15 \\ \hline -2q = -14 \\ \hline q = 7 \end{array}$$

Solve using the elimination method.

$$\begin{aligned} 1) \quad & 3r - 2s = 15 \\ & 7r - 3s = 15 \end{aligned}$$

$$\begin{aligned} 3) \quad & 5a + 3b = 43 \\ & -a + 7b = -1 \end{aligned}$$

$$\begin{aligned} 2) \quad & 4x - 2y = 10 \\ & 3x - y = 12 \end{aligned}$$

$$\begin{aligned} 4) \quad & 2s + 3t = 35 \\ & 5s - 4t = 7 \end{aligned}$$

$$\begin{aligned} 5) \quad & 4w - 4z = -8 \\ & -3w + 5z = 0 \end{aligned}$$

$$\begin{array}{r}
 3(3r - 2s) = (15) \cdot 3 \\
 2(7r - 3s) = (15) \cdot 2 \\
 \hline
 9r - 6s = 45 \\
 - (14r - 6s = 30) \\
 \hline
 -5r = 15 \\
 \hline
 -5 \quad -5 \\
 \hline
 r = -3
 \end{array}$$

$3(-3) - 2s = 15$
 $-9 - 2s = 15$
 $+9 \quad +9$
 \hline
 $-2s = 24$
 $-2 \quad -2$
 \hline
 $s = -12$

$r = -3$
 $s = -12$

$$2) \quad 4x - 2y = 10$$

$$2(3x - y) = (12)2$$

$$\begin{array}{r} 4x - 2y = 10 \\ - (6x - 2y = 24) \\ \hline \end{array}$$

$$\begin{array}{r} -2x = -14 \\ \hline -2 \quad -2 \\ \hline \end{array}$$

$$x = 7$$

$$\begin{array}{r} 21 - y = 12 \\ -21 \quad -21 \\ \hline -y = -9 \\ \hline -1 \quad -1 \\ \hline y = 9 \end{array}$$

$$\begin{array}{l} x = 7 \\ y = 9 \end{array}$$

$$\begin{aligned} 3) \quad & 5a + 3b = 43 \\ & -a + 7b = -1 \end{aligned}$$

$$4) \begin{aligned} 2s + 3t &= 35 \\ 5s - 4t &= 7 \end{aligned}$$

$$\begin{aligned} 5) \quad & 4w - 4z = -8 \\ & -3w + 5z = 0 \end{aligned}$$

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