

Chapter 3-1 to 3-4; 3-7 Review

Section 3-1/3-2

$$1) -11 = x - (-15)$$

$$-11 = x + 15$$

$$-15 \quad -15$$

$$-26 = x$$

Chapter 3-1 to 3-4; 3-7 Review

Section 3-1/3-2

$$\cancel{4} \cdot \frac{y}{4} = \frac{15}{6} \cdot \cancel{4}$$

$$y = \frac{60}{6}$$

$$y = 10$$

$$2) \quad \frac{y}{4} = \frac{15}{6}$$

$$\cancel{4} \cdot \cancel{6} = \cancel{15}$$
$$6y = 60$$

$$y = 10$$

Section 3-3

$$3) -2(4 - x) - 7 = 5$$

$$\begin{array}{r} -8 + 2x - 7 = 5 \\ \hline \end{array}$$

$$2x - 15 = 5$$

$$\begin{array}{r} +15 \quad +15 \\ \hline \end{array}$$

$$2x = 20$$

$$x = 10$$

Section 3-3

$$4) -\frac{2}{3}(6 - 2a) = 6$$

$$-\frac{3}{2} \cdot -\frac{2}{3}(6 - 2a) = \frac{6}{1} \cdot -\frac{3}{2}$$

$$\begin{array}{rcl} 6 - 2a & = & -9 \\ -6 & & -6 \end{array}$$

$$-\frac{2a}{-2} = -\frac{15}{2}$$

$$a = \frac{15}{2} \text{ or } 7\frac{1}{2}$$

Section 3-3

$$5) n - 4(1 + 5n) = -2$$

$$\underline{n - 4 - 20n} = -2$$

$$\begin{array}{r} -19n - 4 = -2 \\ +4 \quad +4 \end{array}$$

$$\frac{-19n}{-19} = \frac{2}{-19}$$

$$n = -\frac{2}{19}$$

Section 3-4

$$6) 9(-5 - r) = -10 - 2r$$

$$\begin{array}{rcl} -45 - 9r & = & -10 - 2r \\ +9r & & +9r \end{array}$$

$$\begin{array}{rcl} -45 & = & -10 + 7r \\ +10 & & +10 \end{array}$$

$$-35 = 7r$$

$$-5 = r$$

Section 3-4

$$7) \frac{1}{3}(3x - 9) = 4(x + 6)$$

$$\begin{array}{rcl} x - 3 & = & 4x + 24 \\ -x & & -x \end{array}$$

$$\begin{array}{rcl} -3 & = & 3x + 24 \\ -24 & & -24 \end{array}$$

$$\frac{-27}{3} = \frac{3x}{3}$$

$$-9 = x$$

Section 3-4

$$8) \quad (6m - 3) = 10 - 6(2 - m)$$

$$6m - 3 = 10 - 12 + 6m$$

$$6m - 3 = 6m + -2$$

no solution

Section 3-7

Solve for r.

$$9) \frac{S}{\pi s} = \pi s (R + r)$$

$$\frac{S}{\pi s} = R + r$$

$$-R -R$$

$$\frac{S}{\pi s} - R = r$$

Section 3-7

10) Rewrite the equation $3x + 2y - 4 = 2(5 - y)$ so that y is a function of x . Then find y when $x = -2, 0$, and 1 .

$$3x + 2y - 4 = 10 - 2y$$

$+2y \qquad \qquad \qquad +2y$

$$3x + 4y - 4 = 10$$

$+4 \qquad \qquad +4$

$$3x + 4y = 14$$

$-3x \qquad \qquad -3x$

$$\frac{4y}{4} = -\frac{3x}{4} + \frac{14}{4}$$

$$y = -\frac{3}{4}x + \frac{7}{2}$$

X	Y
-2	5
0	$\frac{7}{2}$
1	$\frac{11}{4}$