

Chapter 6 Review

Name: Key

#1 On Graph

$$(1, 2)$$

$$\begin{aligned} \#2 \quad y &= 2x - 10 \\ 2y &= x - 8 \end{aligned}$$

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$

$$\begin{aligned} 2(2x - 10) &= x - 8 \\ 4x - 20 &= x - 8 \\ -x & \quad -x \\ 3x - 20 &= -8 \\ +20 & \quad +20 \end{aligned}$$

$$(4, -2)$$

#3

$$\begin{aligned} x + y &= 2 \\ x - y &= 4 \\ \hline 2x &= 6 \\ \frac{2x}{2} &= \frac{6}{2} \\ x &= 3 \end{aligned}$$

$$\begin{aligned} 3 + y &= 2 \\ -3 & \quad -3 \\ y &= -1 \end{aligned}$$

$$(3, -1)$$

#4

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

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

On Graph $(3, 1)$

#5

$$\begin{aligned} y &= -x + 4 \\ y &= 3x \end{aligned}$$

$$\begin{aligned} 3x &= -x + 4 \\ +x & \quad +x \end{aligned}$$

$$\frac{4x}{4} = \frac{4}{4} \quad x = 1$$

$$(1, 3)$$

#6

On graph

$$(2, -1)$$

#7 $2y = x + 1$ $x = 2y - 1$

$$-2x - y = 7$$

$$-2(2y - 1) - y = 7$$

$$-4y + 2 - y = 7$$

$$-5y + 2 = 7$$

$$-5y = 5$$

$$y = -1$$

$$(-3, -1)$$

#8

$$\begin{aligned} x + 2y &= 14 \\ y &= 3x - 14 \end{aligned}$$

$$x + 2(3x - 14) = 14$$

$$\begin{aligned} x + 6x - 28 &= 14 \\ +28 & \quad +28 \end{aligned}$$

$$\frac{7x}{7} = \frac{42}{7}$$

$$x = 6$$

$$(6, 4)$$

#9 $y = 3x + 5$

$x + y = -3$

$x + 3x + 5 = -3$

$4x + 5 = -3$

$\frac{4x}{4} = \frac{-8}{4} \quad x = -2$

$(-2, -1)$

#10 $x + 2y = 3$

$(x - y = 6) \cdot 2$

$2x - 2y = 12$

$x + 2y = 3$

$\frac{3x = 15}{3} \quad x = 5$

$5 - y = 6$

$-5 - y = 1$

$y = -1$

$(5, -1)$

#11 $2x - 4y = -6$

$(x - y = -1) \cdot 2$

$-2x + 2y = 2$

$2x - 4y = -6$

$\frac{-2y = -4}{-2} \quad y = 2$

$x - 2 = -1$
 $x = 1$

$(1, 2)$

#12 $(-4x - 3y = 5) \cdot 3$

$(3x - 2y = -8) \cdot 4$

$-12x - 9y = 15$

$12x - 8y = -32$

$\frac{-17y = -17}{-17} \quad y = 1$

$3x - 2(1) = -8$

$3x - 2 = -8$

$3x = -6$

$x = -2$

$(-2, 1)$

#13

$x + y = 27$

$y = x + 3$

$12 + 15$

$x + x + 3 = 27$

$2x + 3 = 27$

$2x = 24$

$x = 12$

$y = 15$

#14

$x = 9$ DVDs

$y = 15$ DVDs

$x + y = 8$

$9x + 15y = 84$

6 of \$9 DVDs
2 of \$15 DVDs

$-9x - 9y = -72$

$9x + 15y = 84$

$6y = 12$

$y = 2$

$x = 6$

#15

L = large boxes

S = small boxes

$L + S = 10$

$12L + 5S = 71$

7 small
+ 3 large

$-5L - 5S = -50$

$12L + 5S = 71$

$\frac{7L = 21}{7} \quad L = 3$

$L = 3$

$S = 7$

#16 C = chickens

P = pigs

$C + P = 220$

$2C + 4P = 520$

180 chickens +
40 pigs

$-2C - 2P = -440$

$2C + 4P = 520$

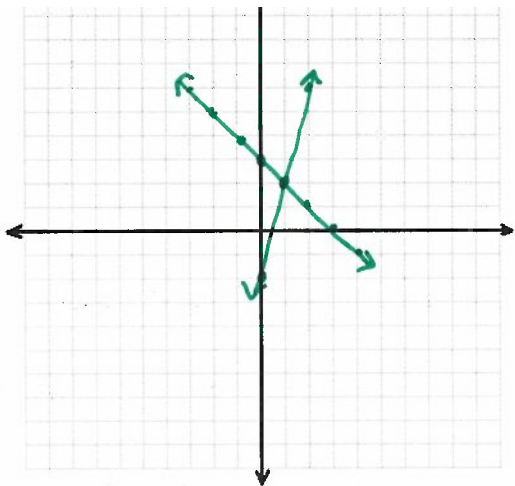
$\frac{2P = 80}{2} \quad P = 40$

~~220~~

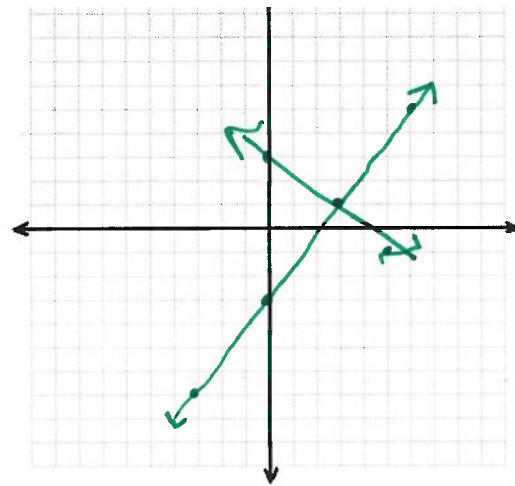
$P = 40$

$C = 180$

1



4



6

