

Name: _____

Date: Sep. 17th

Knowledge	Application	Thinking/Inquiry	Communication
8 / 8	8 / 8	N/A	2 / 2

- Show full solutions for full marks.
- Communication marks will be based on proper form and use of symbols.

1. Solve the following system by graphing using the slope/y-intercept method and verify your solution using a LS/RS Check.

$$y = x + 3$$

$$4y + x = -8$$

$$\textcircled{L1} y = x + 3$$

$$m = 1$$

$$b = 3$$

$$\textcircled{L2} 4y + x = -8$$

$$4y = -x - 8$$

$$\frac{4y}{4} = \frac{-x - 8}{4}$$

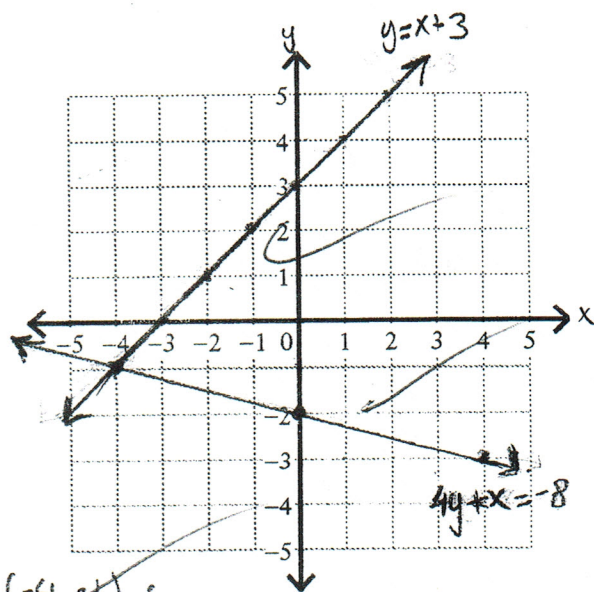
$$y = \frac{-1}{4}x - 2$$

$$m = \frac{-1}{4}$$

$$b = -2$$

$$\textcircled{L1} \begin{array}{l|l} \text{LS} = y & \text{RS} = x + 3 \\ -1 & -4 + 3 \\ -1 & -1 \\ \hline \checkmark & \checkmark \\ \text{LS} = \text{RS} & \end{array}$$

$$\textcircled{L2} \begin{array}{l|l} \text{LS} = 4y + x & \text{RS} = -8 \\ 4(-1) + (-4) & -8 \\ -4 - 4 & -8 \\ -8 & -8 \\ \hline \checkmark & \checkmark \\ \text{LS} = \text{RS} & \end{array}$$

$$(-4, -1)$$


$\therefore (-4, -1)$ is
the solution.

2. Solve the following system by graphing using the intercepts method and verify your solution using S/RS Check.

$$\begin{cases} x + 4 = -y \\ 2y + 4 = -x \end{cases}$$

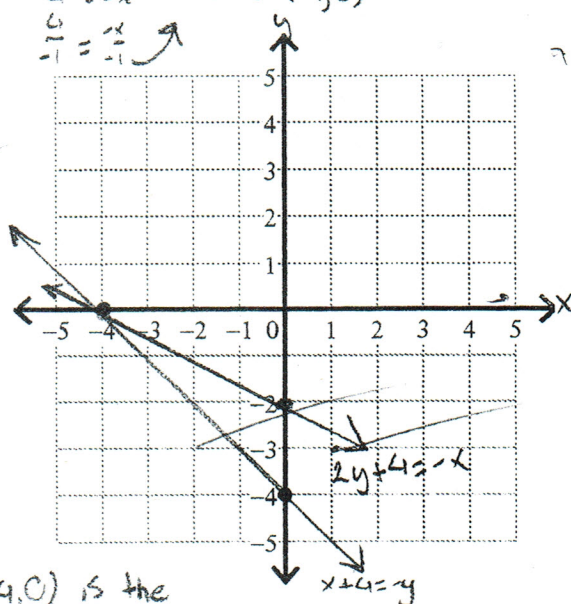
$(-4, 0)$

(L1) $x + 4 = -y$
 $x + 4 = 0$
 $x = 0 - 4$
 $x = -4$
 $4 = -y$
 $\frac{4}{-1} = \frac{-y}{-1}$
 $-4 = y$
 $(0, -4)$

(L2) $2y + 4 = -x$
 $2y + 4 = 0$
 $2y = 0 - 4$
 $\frac{2y}{2} = \frac{-4}{2}$
 $y = -2$
 $(0, 2)$

$2y + 4 = -x$
 $2(0) + 4 = -x$
 $4 = -x$
 $\frac{4}{-1} = \frac{-x}{-1}$
 $-4 = x$

$-4 = x$ $(-4, 0)$



(L1) $LS = x + 4$ $RS = -y$
 $-4 + 4$ 0
 0 0
 \checkmark \checkmark
 $LS = RS$

(L2) $LS = 2y + 4$ $RS = -x$
 $2(0) + 4$ 4
 $0 + 4$ 4
 4 4
 \checkmark \checkmark
 $LS = RS$

$\therefore (-4, 0)$ is the solution