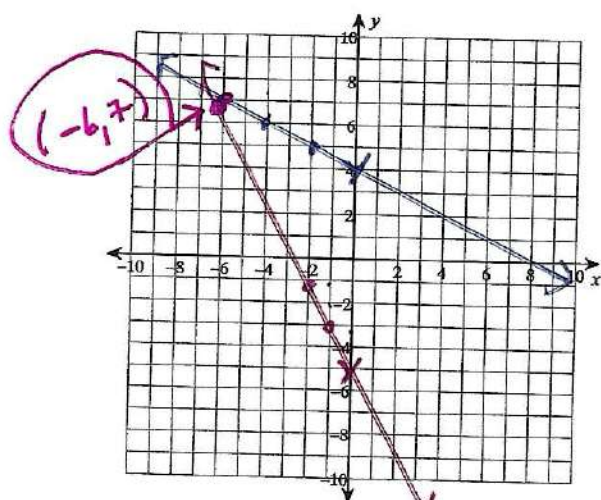


## 7.1 and 7.5a Practice Quiz

Date \_\_\_\_\_ Period \_\_\_\_\_

7.1 SOLVE SYSTEM BY GRAPHING - Clearly graph; AND check the solution algebraically in the original eq's

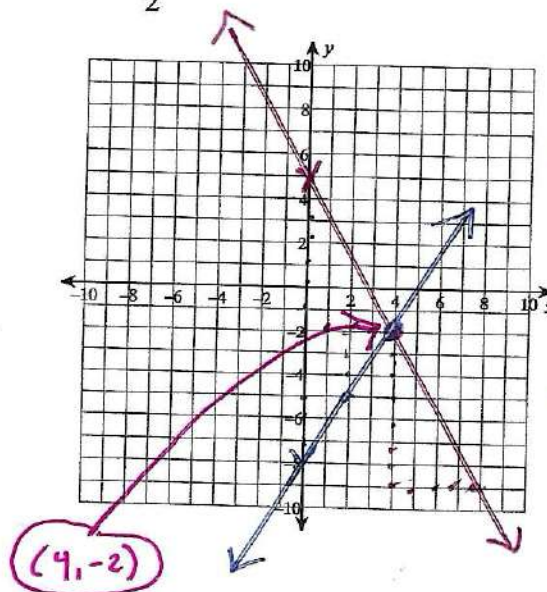
1)  $y = -2x - 5$   $m = -2/1$   $b = -5$   
 $y = -\frac{1}{2}x + 4$   $m = -1/2$   $b = 4$



L1:  $7 = -2(-6) - 5$   
 $7 = 7 \checkmark$

L2:  $7 = -\frac{1}{2}(-6) + 4$   
 $7 = 7 \checkmark$

2)  $y = -\frac{7}{4}x + 5$   $m = -7/4$   $b = 5$   
 $y = \frac{3}{2}x - 8$   $m = 3/2$   $b = -8$

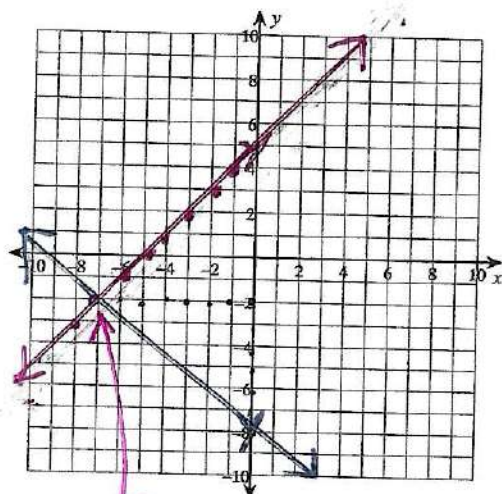


L1:  $-2 = -\frac{7}{4}(4) + 5$   
 $-2 = -2 \checkmark$

L2:  $-2 = \frac{3}{2}(4) - 8$   
 $-2 = -2 \checkmark$

3)  $x - y = -5$   
 $6x + 7y = -56$

$y = x + 5$   $m = 1/1$   $b = 5$



$$\begin{array}{r} 6x + 7y = -56 \\ -6x \phantom{+ 7y} = -6x \\ \hline 7y = -6x - 56 \\ \frac{7y}{7} = \frac{-6x - 56}{7} \\ y = -\frac{6}{7}x - 8 \end{array}$$

Checks

L1:  $(-7) - (-2) = -5$   
 $-5 = -5 \checkmark$

L2:  $6(-7) + 7(-2) = -56$   
 $-42 - 14 = -56$   
 $-56 = -56 \checkmark$

**7.1 DETERMINE SOLUTIONS:** Tell whether the point  $(-6, 4)$  is a solution to the linear equation. Explain your decision.

4)  $3x + 2y = -10$   
 $x - 6y = 30$

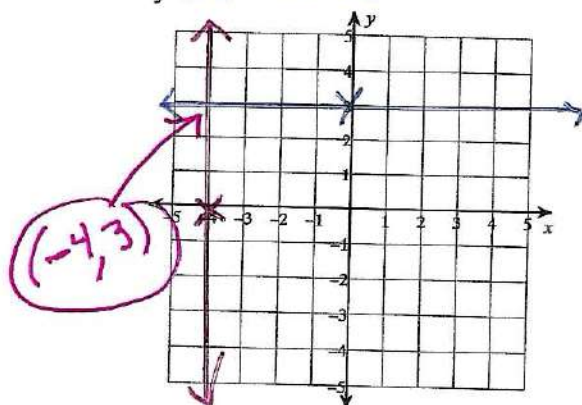
L1:  $3(-6) + 2(4) = -10$   
 $-18 + 8 = -10$   
 $-10 = -10 \checkmark$

L2:  $(-6) - 6(4) = 30$   
 $-30 \neq 30 \times$

$(-6, 4)$  IS NOT A SOLUTION  
 b/c Line 2 DOES NOT CHECK

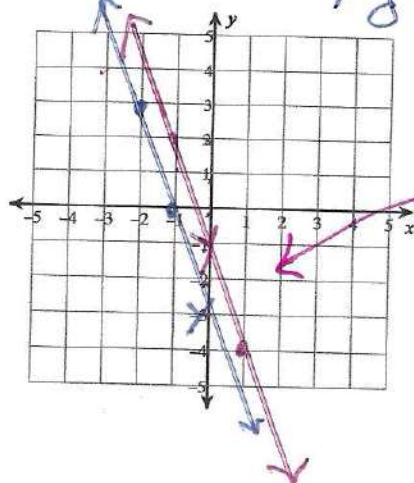
**7.5a SPECIAL CASES -** Solve the system by graphing. Clearly show your work putting equations into " $y=mx+b$ "

5)  $x = -4 \leftarrow$  V LINE  
 $y = 3 \leftarrow$  H LINE



C(EQ1)  $-4 = -4 \checkmark$   
 C(EQ2)  $3 = 3 \checkmark$

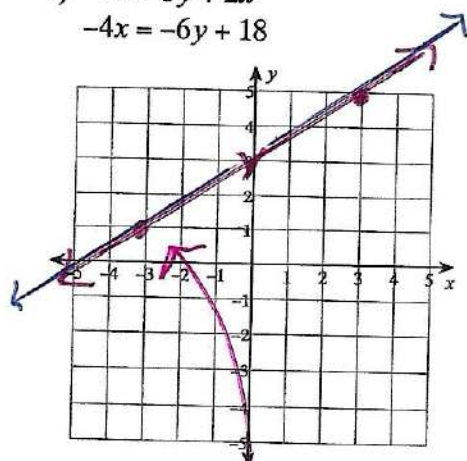
6)  $3x + y = -1 \rightarrow y = -3x - 1$   
 $3x + y = -3 \rightarrow y = -3x - 3$



NO SOLUTION

NOTICE: Lines are  $\parallel$  and will never intersect

7)  $-9 = -3y + 2x$   
 $-4x = -6y + 18$



INFINITE SOLUTION

L1:  $-9 = -3y + 2x$   
 $-2x \quad -2x$   
 $-3y = -2x - 9$   
 $-3 \quad -3 \quad -3$   
 $y = \frac{2}{3}x + 3$

L2:  $-4x = -6y + 18$   
 $-18 \quad -18$   
 $-6y = -4x - 18$   
 $-6 \quad -6 \quad -6$   
 $y = \frac{2}{3}x + 3$

-2-

NOTICE: Same line and solutions are all the points on it