Name: _____ Date: _____ Period: _____

4.1 Solving Systems of Linear Equations by Graphing CYU

☑ *Use when you get it right all by yourself*

S *Use when you did it all by yourself, but made a silly mistake*

H *Use when you could do it alone with a little help from teacher or peer*

G *Use when you completed the problem in a group*

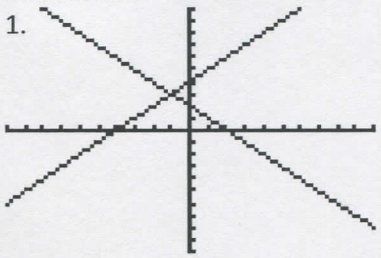
X *Use when a question was attempted but wrong (get help)*

N *Use when a question was not even attempted*

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Reading Graphs of systems	2	1, 3	
Checking solutions of systems	4 - 7		
Solving a linear system by graphing	10	8, 9	11, 12, 13
Without graphing state number of solutions	15	14	16
Parallel, Perpendicular, Coinciding, or Intersecting	15	14	16

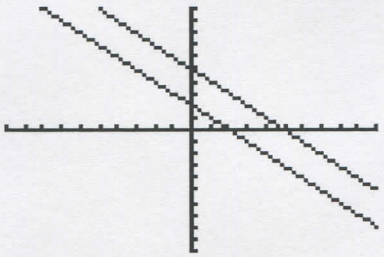
Each rectangular coordinate system shows the graph of the equations in a system of equations. Use each graph to determine the number of solutions for each associated system. If the system has only one solution, give its coordinates.

1.



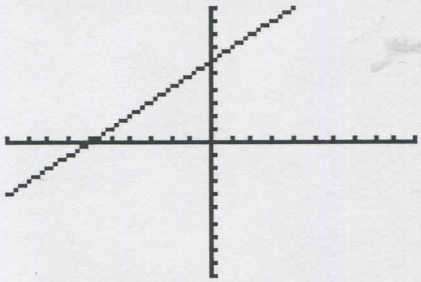
$(-1, 3)$

2.



$\emptyset$

3.



∞

Determine whether each ordered pair is a solution of the system of linear equations.

4. $\begin{aligned} x + y &= 8 \\ 3x + 2y &= 21 \end{aligned}$

a) (2, 4) no

b) (5, 3) yes

5. $\begin{aligned} 3x - y &= 5 \\ x + 2y &= 11 \end{aligned}$

a) (3, 4) yes

b) (0, - 5) no

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

a) (- 3, - 3) yes

b) (0, 3) yes

7. $\begin{aligned} -2 &= x - 7y \\ 6x - y &= 13 \end{aligned}$

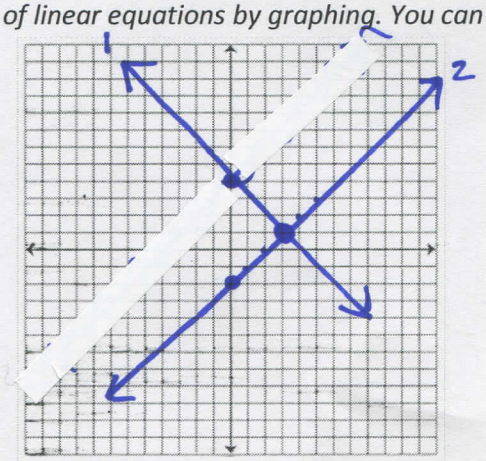
a) (- 2, 0) no

b) $\left(\frac{1}{2}, \frac{5}{14}\right)$ no

Solve each system of linear equations by graphing. You can always check using your calculator.

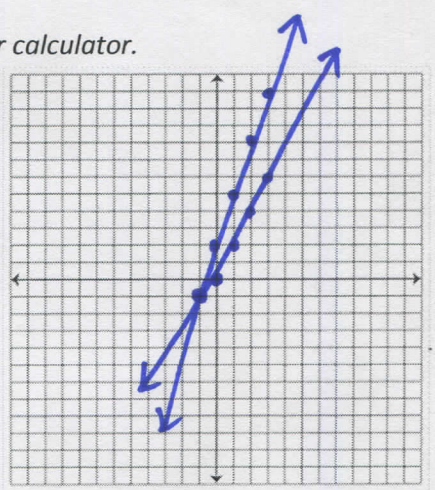
8. $\begin{aligned} x + y &= 4 \\ x - y &= 2 \end{aligned}$

$(3, 1)$



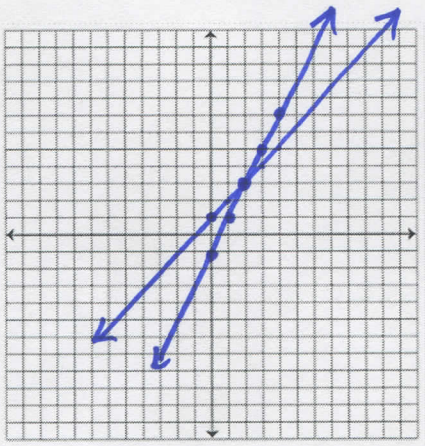
9. $\begin{aligned} y &= 2x \\ 3x - y &= -2 \end{aligned}$

$(-1, -1)$



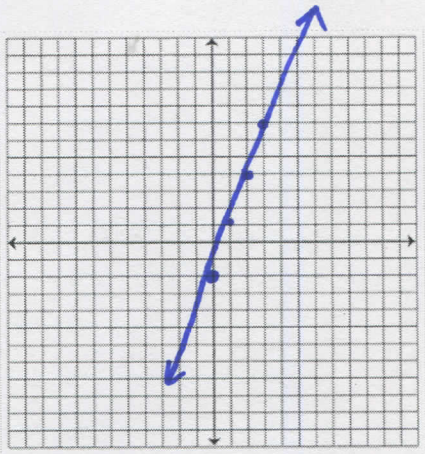
10. $y = x + 1$
$y = 2x - 1$

(2, 3)



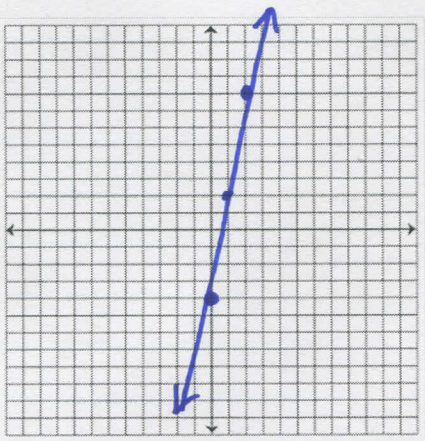
11. $y - 3x = -2$
$6x - 2y = 4$

∞



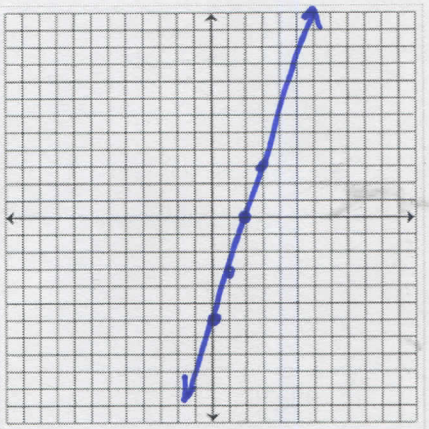
12. $\frac{1}{2}y = -2 + 3x$
$6x - y = 4$

∞



13. $3x - y = 6$
$\frac{1}{3}y = -2 + x$

∞



Without graphing, decide:

a) Are the graphs of the equations identical (coinciding) lines, parallel lines, or lines intersecting at a single point?

b) How many solutions does the system have?

14. $4x + y = 24$ 1
$x + 2y = 2$ 2

(a) ① $m = -4$
② $m = -\frac{1}{2}$
intersecting

(b) one solution

15. $2x + y = 0$ 1
$2y = 6 - 4x$ 2

a) ① $m = -2$
② $m = -2$
//

b) $\varnothing$

16. $6x - y = 4$
$\frac{1}{2}y = -2 + 3x$

a) ① $m = 6$ $b = -4$
② $m = 6$
coinciding

b) ∞

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yours elf.

1 2	3 4 5	6 7	8
Basic	Intermediate	Advanced	Solved ALL