## Unit 1 - Part 3 Linear Functions

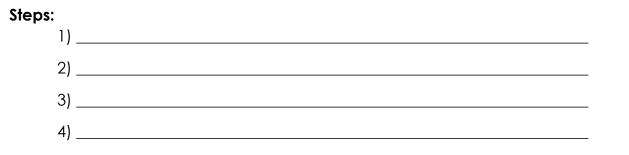
Monday	Tuesday	Wednesday	Thursday	Friday
Jan. 25 <sup>th</sup>	Jan. 26 <sup>th</sup>	Jan. 27th	Jan. 28 <sup>th</sup>	Jan. 29 <sup>th</sup>
			Unit 1 Part 2 Quiz	Solving Systems by Graphing
Feb. 1 <sup>st</sup>	Feb. 2 <sup>nd</sup>	Feb. 3rd	Feb. 4 <sup>th</sup>	Feb. 5 <sup>th</sup>
Solving Systems by Substitution	Solving Systems by Elimination Quiz	Quiz due at midnight	Systems of Equations Word Problems	Graphing Systems of Inequalities
Feb. 8th	Feb. 9 <sup>th</sup>	Feb. 10 <sup>th</sup>	Feb. 11 <sup>th</sup>	Feb. 12 <sup>th</sup>
Graphing Systems of Inequalities	Review Test	Test due at midnight	Factoring by GCF	Factoring

Introduction to Sv	stems of Equations		3
A system of linear equations consists of			_that
use the same			
The to a system of	equations is the	or	
that make ALL of the equations true.			
Remember, a point is represented by an		_, (#,#).	

Determine if the given ordered pair is a solution to the system of equations.

1) 3x + 7y = 12 Point: (-3,3) 7x - y = -42) 2x - 7 = -y Point: (2,3) -5x + 13 = y

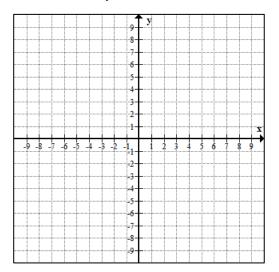
When you are solving for a system of equations, you can have 3 different types of solutions:



## Examples

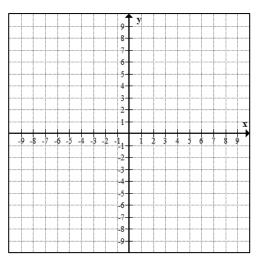
 $1) \qquad 2x - 2y = -8$ 

2x + 2y = 4



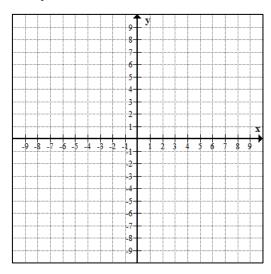
3) 
$$x + y = -2$$

$$2x - 3y = -9$$



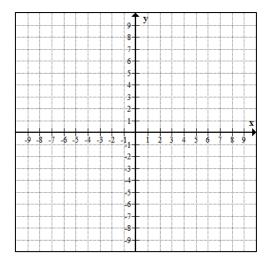
2) 
$$y = -2x + 5$$

y = -2x + 1



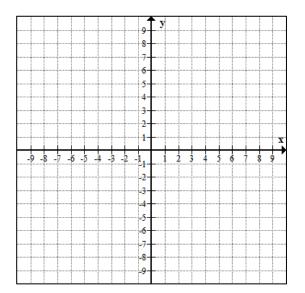


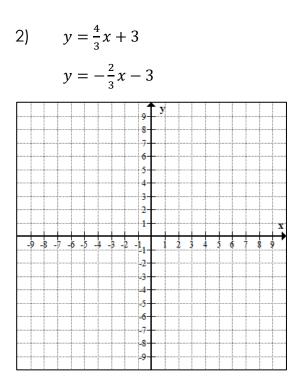
2x + y = 1



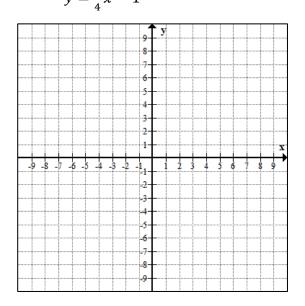
1) y = 3x - 4

$$y = -3x + 2$$



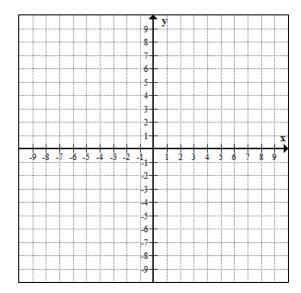


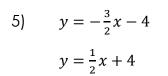
3)  $y = \frac{5}{4}x - 2$  $y = \frac{5}{4}x - 1$ 

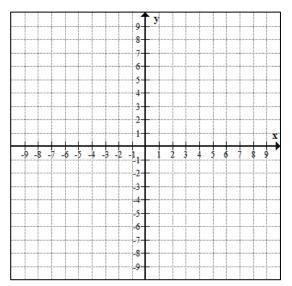


4)  $y = \frac{1}{3}x + 2$ 

$$y = -x - 2$$

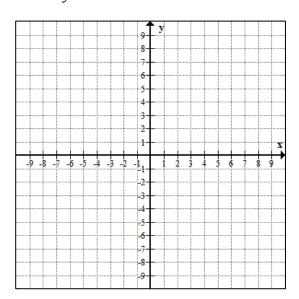


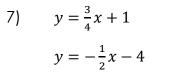


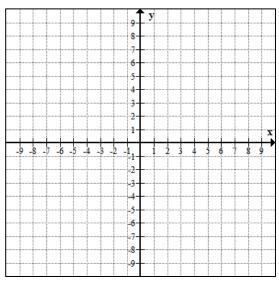


6) y = 4x - 1

y = -x + 4

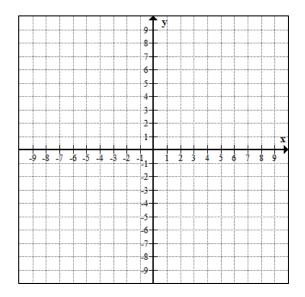


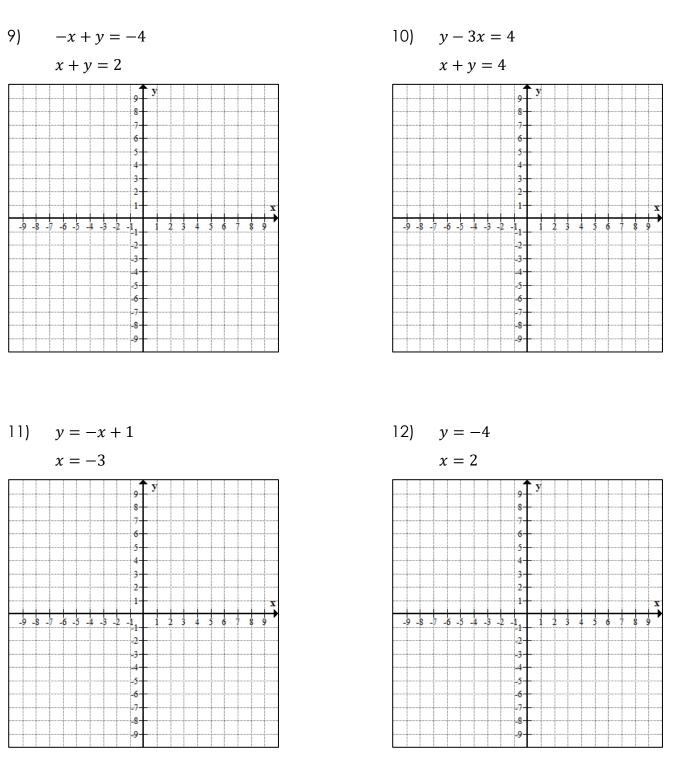




8) 2y + 3x = -6

2x + y = 2





What do you notice?

- If two lines have the SAME SLOPE (m), and the SAME Y-INTERCEPT (b), then the system has \_\_\_\_\_
- If two lines have the SAME SLOPE (m), but DIFFERENT Y-INTERCEPTS (b), then the system has \_\_\_\_\_\_
- ▶ If the lines have DIFFERENT SLOPES (m), then the system has \_\_\_\_\_

\_\_ regardless of if the y-intercepts are the same or different

7

## What were the headlines after a mad scientist trained two eggs to attack a candy store with sharp sticks?

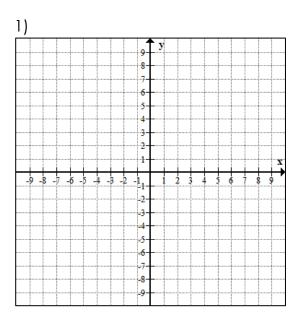
Directions: Solve each of the equations below by graphing. Cross out the box containing your answer. When you finish, print the remaining boxes in the spaces at the bottom of the page.

1)  $y = \frac{2}{3}x - 1$  y = -x + 44) y = 2x2) y = -2x + 1 y = x - 53)  $y = \frac{1}{2}x - 3$   $y = \frac{3}{2}x - 1$ 6) x = 3 - 3y

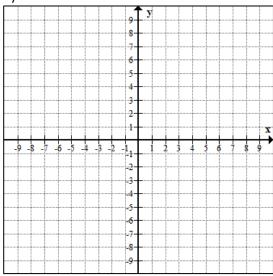
$$x + y = 3$$
  $3x + y = -4$   $x + 3y = -6$ 

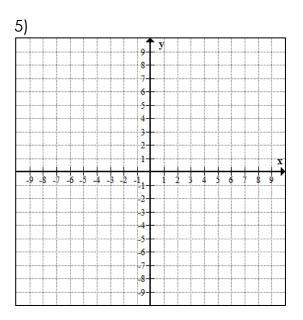
7) x + 2y = -48) y = -29) 4x + 3y = -154y = 3x + 122x - 5y = 20y = x + 2

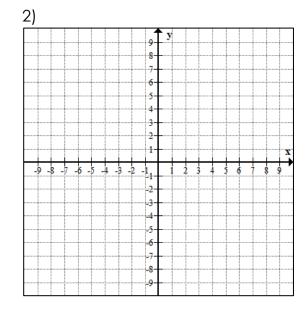
ΤW	ΕG	0 S	G S	WΕ	ΕT	SP	TR
(-4,0)	(-4, -5)	no solution	(4,1)	(3,1)	(-2, -4)	(-1,6)	(-3, -1)
ΕA	ΤS	RΑ	ΤI	ΜI	S S	ΝΤ	UΡ
(-3,5)	(1,2)	(0,3)	(2,-3)	(4, -3)	(5, -2)	(-1,0)	(-2,2)



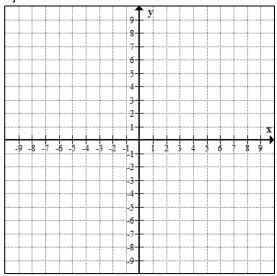
3)



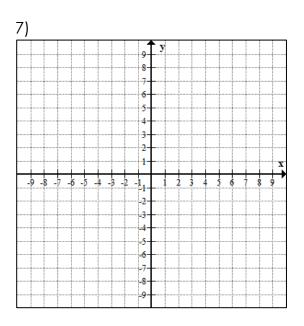




4)



6) 9<sup>1</sup> λ 8-7-6-5-4-3-2-1-2 -1 -9 -8 -7 -6 -5 -4 -3 -2 2 3 5 8 9 4 6 -2--3--4--5--6--7--8--9-



9)

			1 1							
				,ТУ						
			1	9						
		· • · · · · · · · · · · · · · · · · · ·	· • · · · · • • · · · · · · · · · · · ·	8				·+		
				7						
				1						
		+	++	6						
				5		ļ				
			11	4						
			. <u>.</u>	3		ļļ		ļļ		
1		1	1 1	2		Ī		1		
				1		ļ				
									1	
_Q _R	7 6	5 4	3 9		2	3 4	5 6	\$ 7	8	ģ
-9 -8	-7 -6	-5 -4 -	3 -2 -	11	2	34	5 (	\$ 7	8	9
-9 -8	-7 -6	-5 -4 -	3 -2 -	11	2 :	34	5 (	5 7	8	9
-9 -8	-7 -6	-5 -4 -	3 -2 -	11 _2	2 :	34	5 (	5 7	8	9
-9 -8	-7 -6	-5 -4 -	3 -2 -	11 -2	2	3 4	5 6	5 7	8	9
-9 -8	-7 -6	-5 -4 -	3 -2 -		2 :	3 4	5 6	5 7	8	9
-9 -8	-7 -6	-5 -4 -	3_2_	-4	2 :	3 4	5 6	5 7	8	9
-9 -8	-7 -6	-5 -4 -	3 -2 -		2 :	3 4	5 6	5 7	8	9
-9 -8	-7 -8	-5 -4 -	3 -2 -	-4	2 :	3 4	5 0	5 7	8	9
-9 -8	-7 -8	-5 -4 -	-3 -2 -	-4 -5	2 :	3 4	5 0	5 7	8	9
_9 _8	-7 -6	-5 -4 -	-3 -2 -	-4	2	3 4	5 0	5 7	8	<b>9</b>
-9 -8	-7 -6	-5 -4 -	-3 -2 -	-4 -5 -6	2 :	3 4	5 0	5 7	8	9
-9 -8	-7 -6	-5 -4 -	3 -2 -	-4 -5 -7 -8	2	3 4	5	5 7	8	<b>9</b>
-9 -8	-7 -6	-5 -4 -	3 -2 -	-4 -5 -6	2	3 4	5	5 7	8	9

