

Unit 1 - Part 3

Linear Functions

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

Introduction to Systems of Equations

A system of linear equations consists of _____ or more linear _____ 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: $(-3, 3)$
 $7x - y = -4$

2) $2x - 7 = -y$ Point: $(2, 3)$
 $-5x + 13 = y$

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

▶ _____

▶ _____

▶ _____

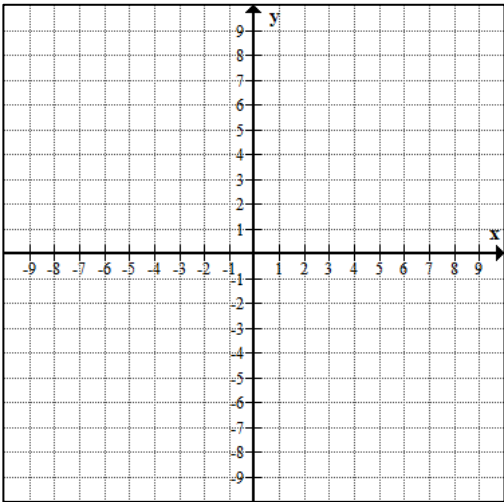
Solving Systems of Equations by Graphing

Steps:

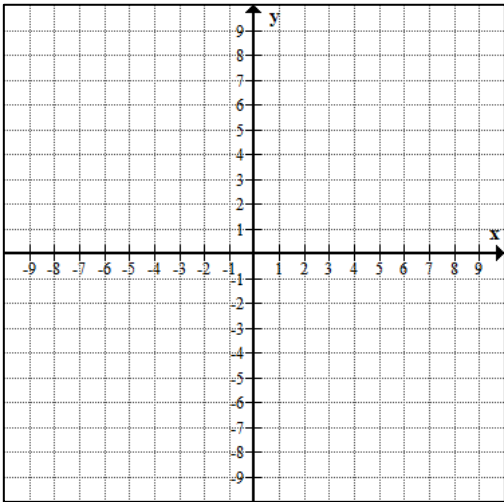
- 1) _____
- 2) _____
- 3) _____
- 4) _____

Examples

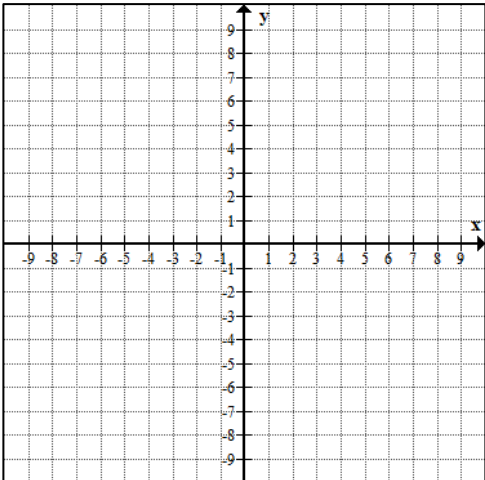
1) $2x - 2y = -8$
 $2x + 2y = 4$



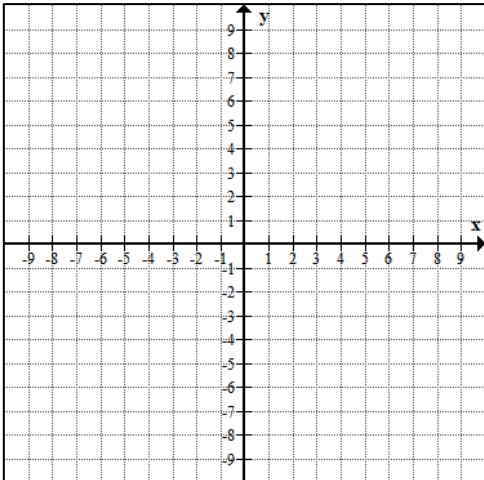
2) $y = -2x + 5$
 $y = -2x + 1$



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



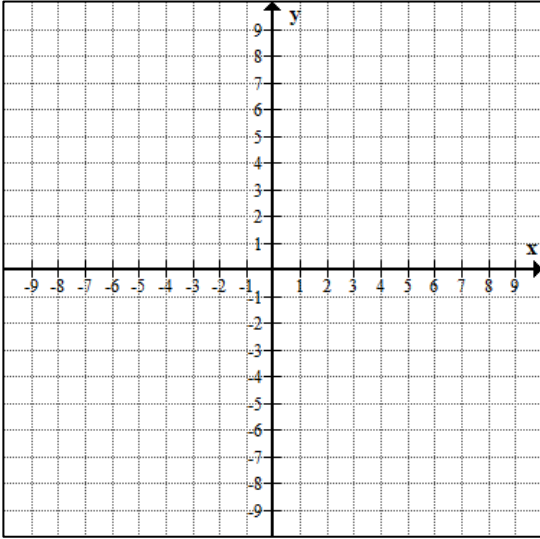
4) $y = 5$
 $2x + y = 1$



Graphing Systems of Equations Practice

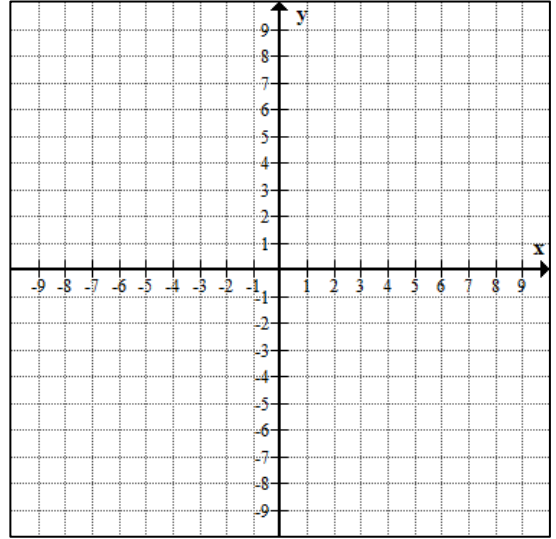
1) $y = 3x - 4$

$y = -3x + 2$



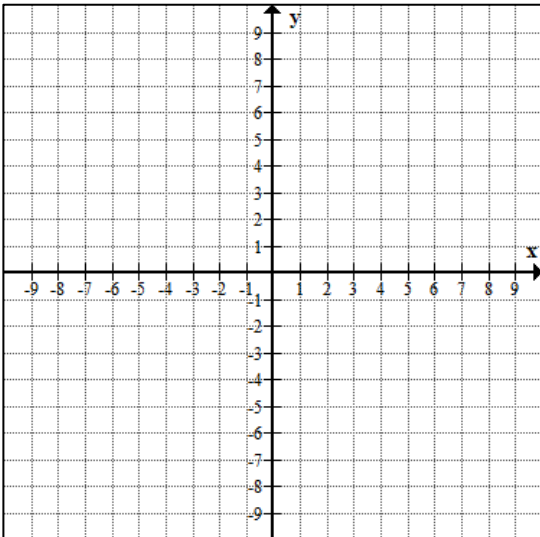
2) $y = \frac{4}{3}x + 3$

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



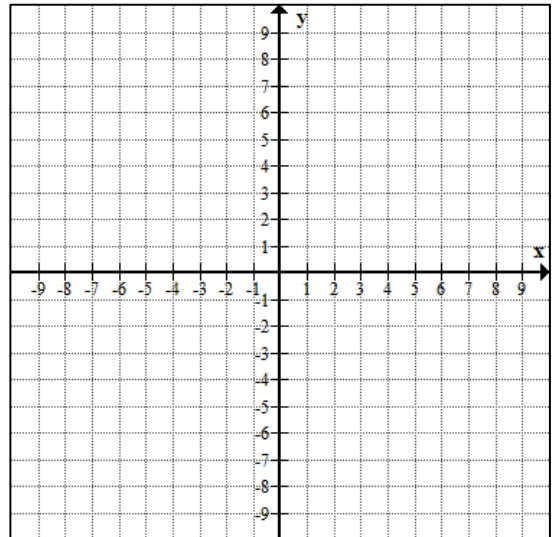
3) $y = \frac{5}{4}x - 2$

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



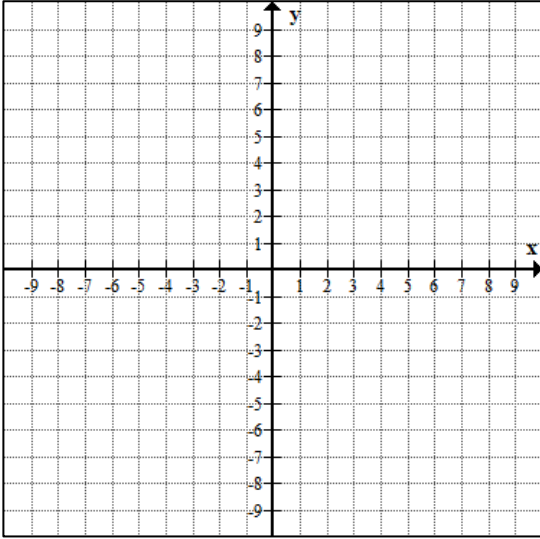
4) $y = \frac{1}{3}x + 2$

$y = -x - 2$



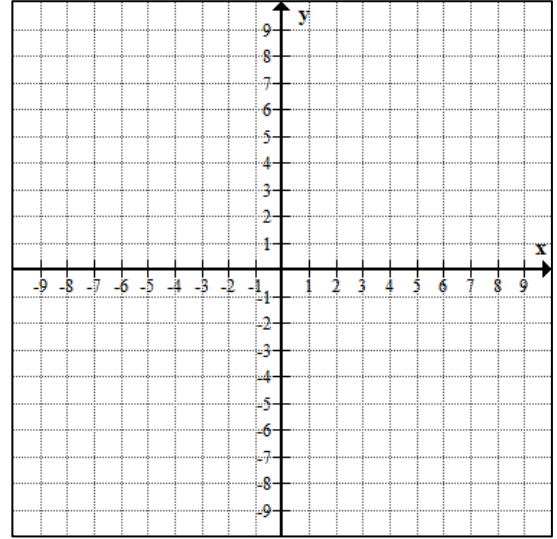
$$5) \quad y = -\frac{3}{2}x - 4$$

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



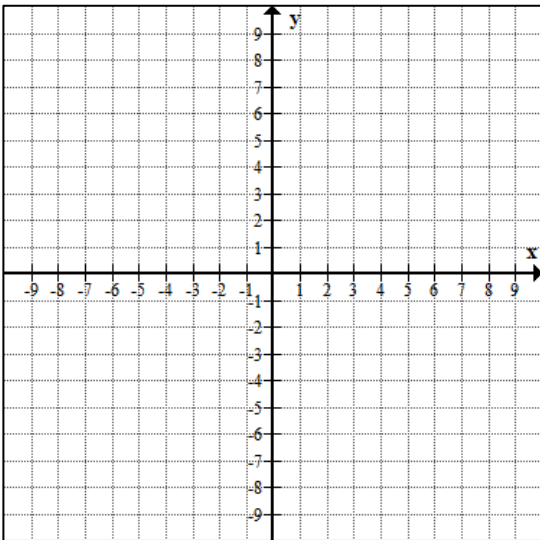
$$6) \quad y = 4x - 1$$

$$y = -x + 4$$



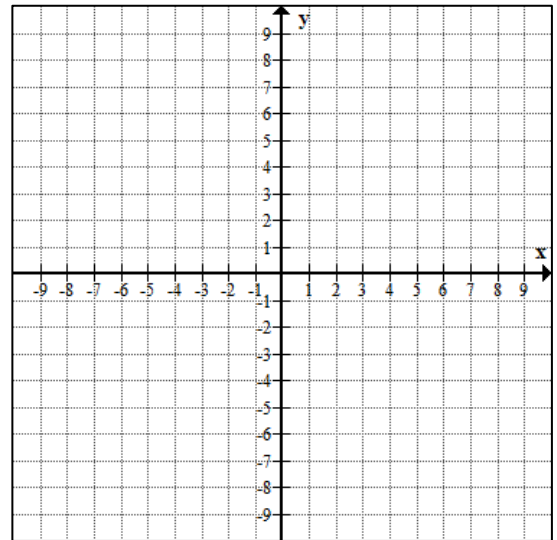
$$7) \quad y = \frac{3}{4}x + 1$$

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



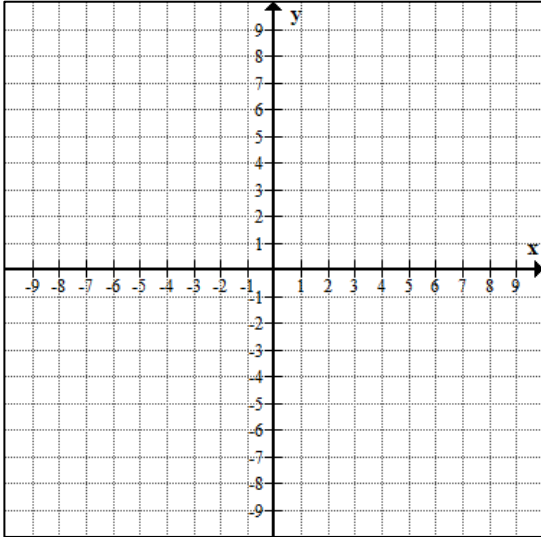
$$8) \quad 2y + 3x = -6$$

$$2x + y = 2$$



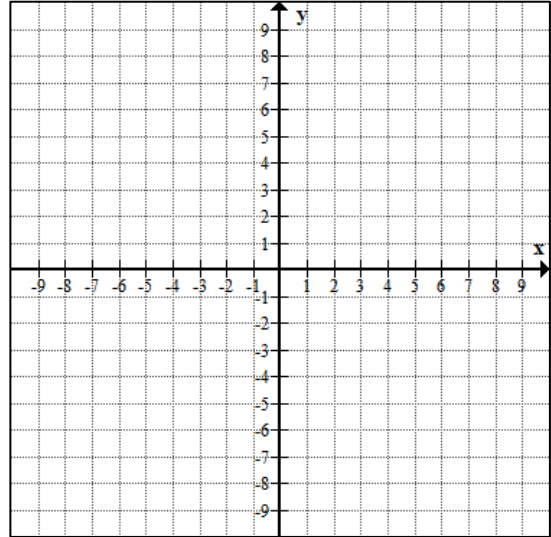
9) $-x + y = -4$

$x + y = 2$



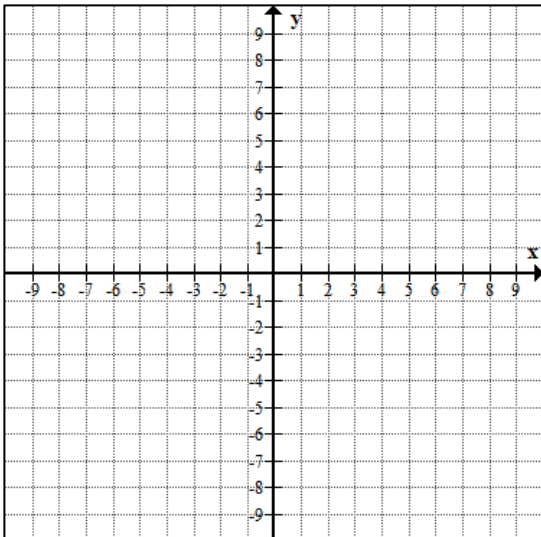
10) $y - 3x = 4$

$x + y = 4$



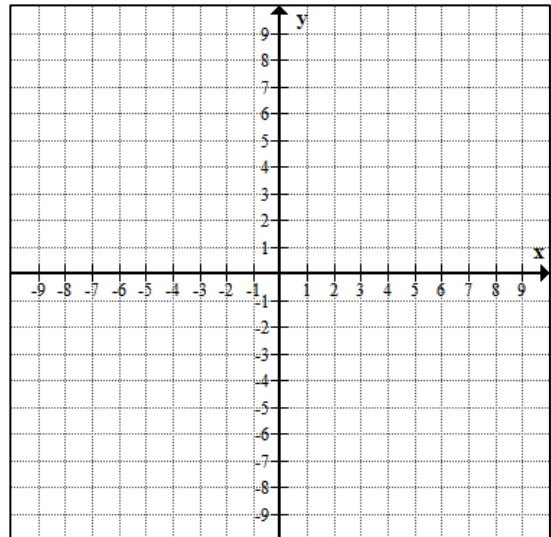
11) $y = -x + 1$

$x = -3$



12) $y = -4$

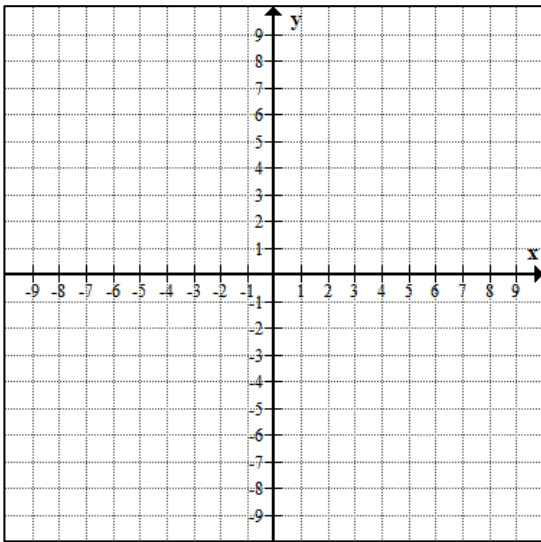
$x = 2$



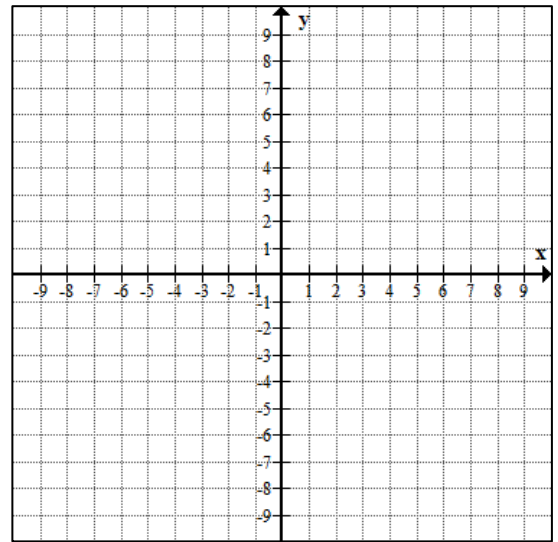
What do you notice?

- ▶ 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

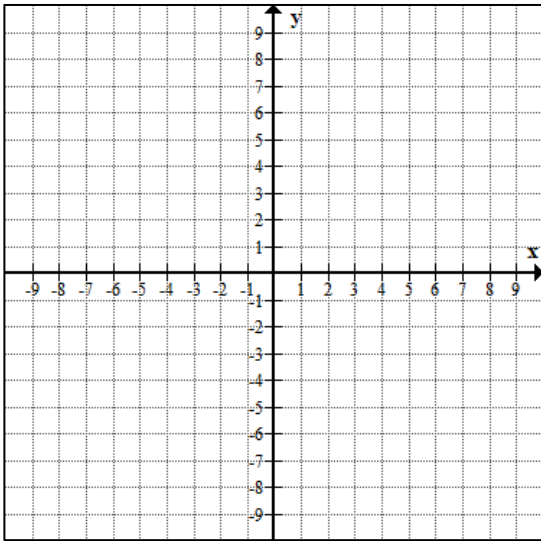
1)



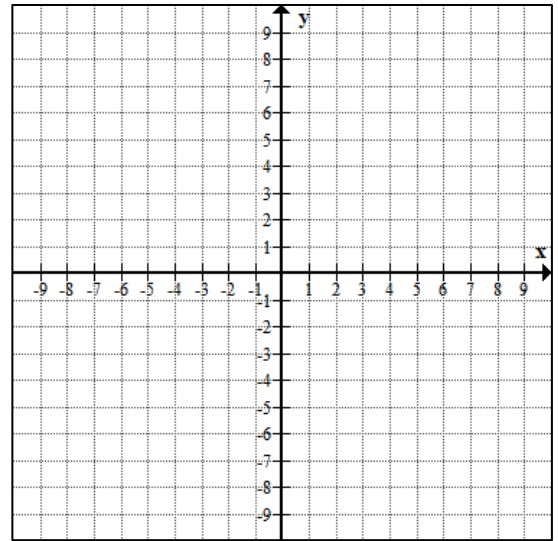
2)



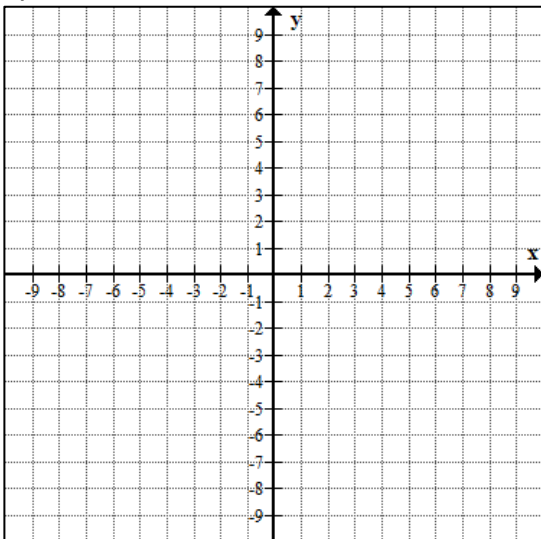
3)



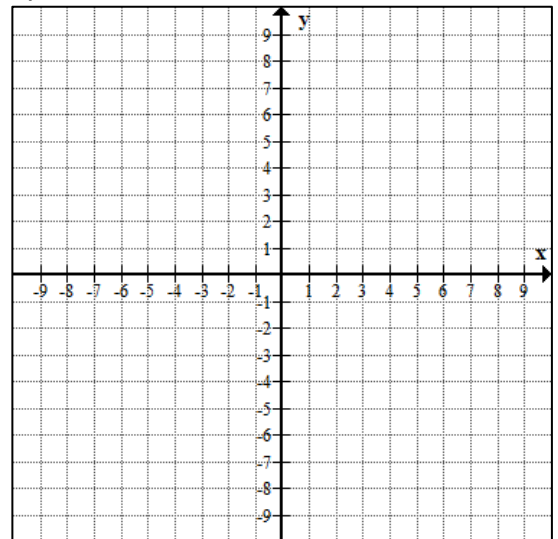
4)



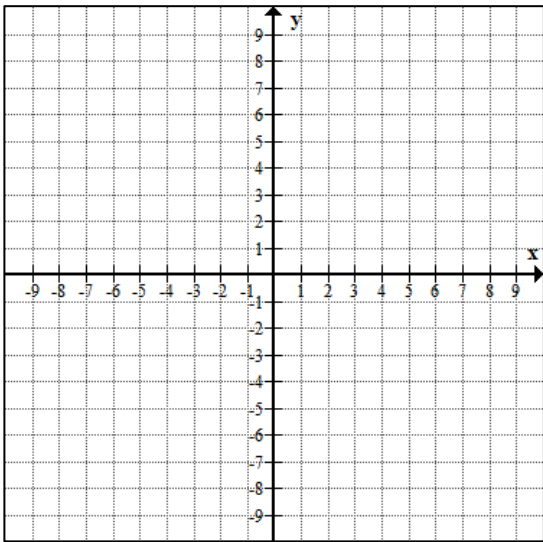
5)



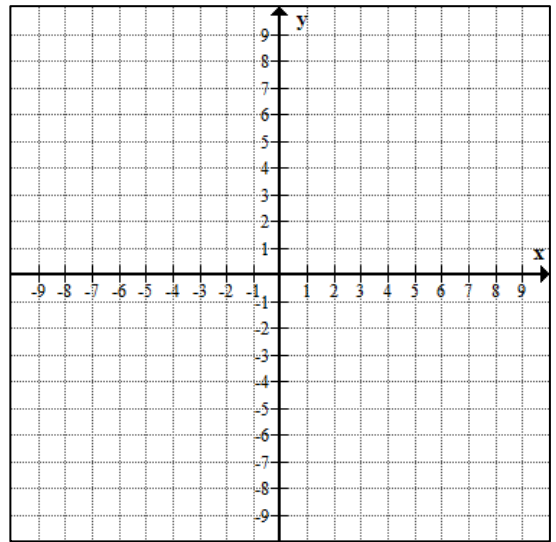
6)



7)



8)



9)

