

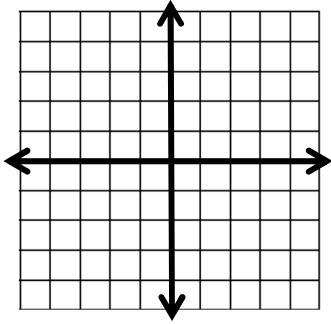
4R At Which Point Ready to Test

Name: _____ Per: _____

SHOW YOUR WORK FOR FULL CREDIT. NO WORK, NO CREDIT. NO WORK IN PEN.

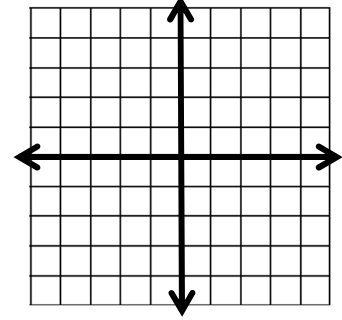
Solve the following systems of equations **algebraically**. Estimate the solution on the **graph**. **Check** your solution.

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



Solution: _____

2. $\begin{cases} 2x + 2y = 2 \\ 3y - 3x = -3 \end{cases}$



Solution: _____

Solve the following systems of equations by any method.

3. $\begin{cases} y = 6x - 11 \\ 6x + 4y = 16 \end{cases}$

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

5. $\begin{cases} -6x + 4y = 12 \\ 2x - 6y = 15 \end{cases}$

Solution: _____
CHECK: _____

Solution: _____
CHECK: _____

Solution: _____
CHECK: _____

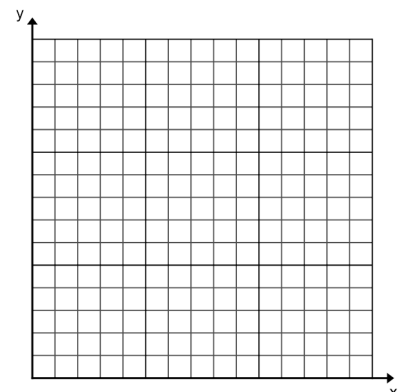
State **how many solutions** the following set of equations will have and **EXPLAIN** how you know.

9. $\begin{cases} 3y = 18x + 9 \\ -6x + y = 4 \end{cases}$

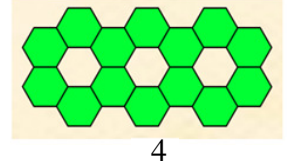
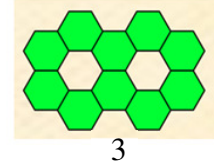
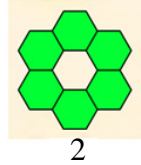
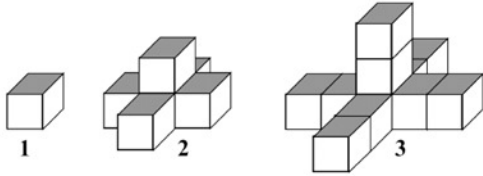
10. $\begin{cases} 2y - 8x = 14 \\ y = 4x + 7 \end{cases}$

11. $\begin{cases} 6x + 2y = 10 \\ y = -2x + 1 \end{cases}$

12. Leah bought 3 movie tickets (two regular and one was a matinee) for \$20. Warren traded 6 regular movie tickets for 5 matinee tickets and also got \$12 back. Solve to find the cost of the movie and matinee tickets.



13. Make two different equations for the following patterns.



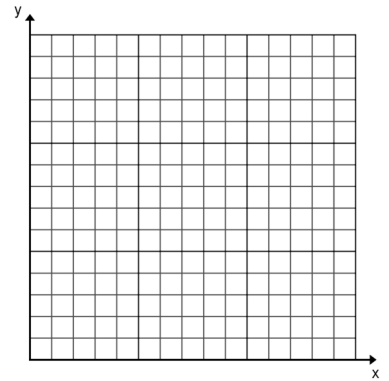
a. Define your variables:

b. What is your y-intercept for pattern 1? _____ pattern 2? _____

c. Write the equations showing the number of blocks.

d. Graph the equations showing the number of blocks. Don't forget to label.

e. When will there be the same number of blocks in both figures?



14. Jada & Zach are opening up savings accounts to buy matching surfboards. They both plan on depositing \$20 each week. Jada opens her account with \$100 while Zach starts with \$150.

a. Define your variables:

b. Write the equations:

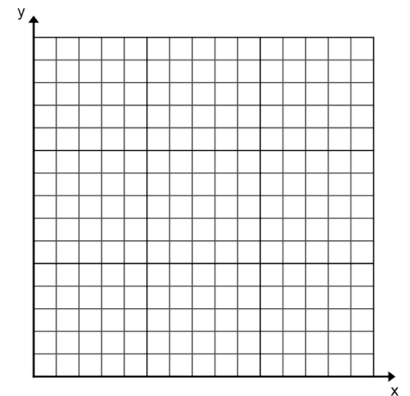
c. Scale, label and graph the equations. Circle where they cross.

d. Use setting equal to solve the system of equations.

e. When will they both have the same amount in their savings accounts?
 ____ How do you know?

f. How much will Zach have after 32 weeks? _____

g. When will Jada have enough to buy a \$730 board? _____



15. Jordan bought 2 shares of McDonny's and 8 shares of Patty King for \$6. Mya bought 5 shares and 20 shares respectively for \$15.

a. Define variables.

b. Write the equations.

c. Scale, label and graph the equation. Circle where they cross.

d. Solve the system.

e. Find the y-intercepts and x-intercepts for McDonny's.

