

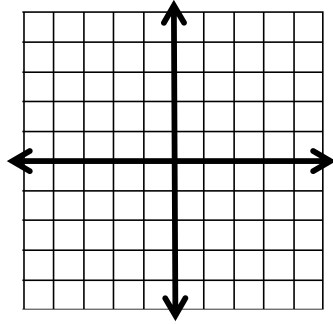
5R At Which Point Ready to Test

Name: _____ Per: _____

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

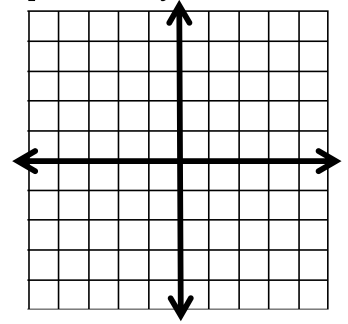
Solve the following systems of equations **algebraically**. Estimate the solution on the **graph**. **Check** your solution.

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: _____

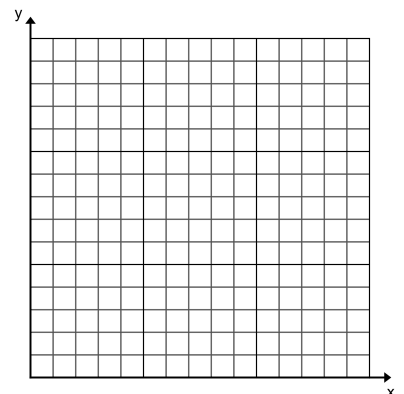
State **how many solutions** the following set of equations will have and **EXPLAIN** how you know.

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

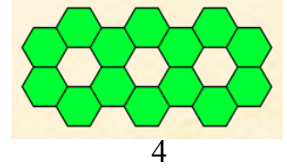
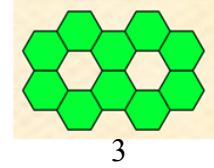
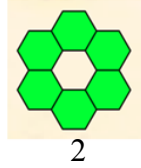
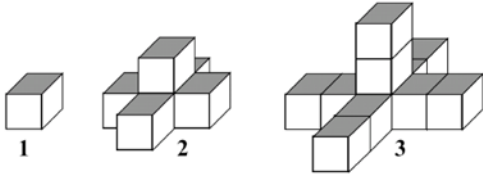
10.
$$\begin{cases} 2y - 8x = 14 \\ y = 4x + 7 \end{cases}$$

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

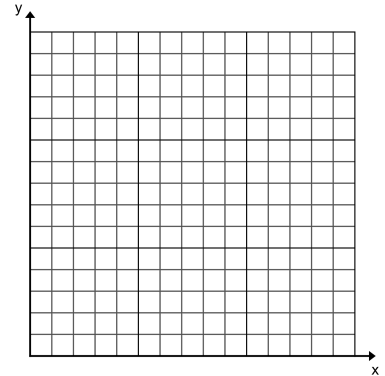
12. Leah bought 3 movie tickets (two regular and one was a matinee) for \$20. Warren traded 6 regular movie tickets for 5 matinee tickets and also got \$12 back. Solve to find the cost of the movie and matinee tickets.



13. Make two different equations for the following patterns.

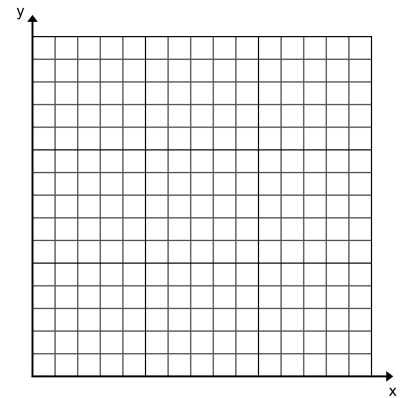


- Define your variables:
- What is your y-intercept for pattern 1? _____ pattern 2? _____
- Write the equations showing the number of blocks.
- Graph the equations showing the number of blocks. Don't forget to label.
- When will there be the same number of blocks in both figures?



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.

- Define your variables:
- Write the equations:
- Scale, label and graph the equations. Circle where they cross.
- Use setting equal to solve the system of equations.
- When will they both have the same amount in their savings accounts?
_____ How do you know?
- How much will Zach have after 32 weeks? _____
- 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.

- Define variables.
- Write the equations.
- Scale, label and graph the equation. Circle where they cross.
- Solve the system.
- Find the y-intercepts and x-intercepts for McDonny's.

