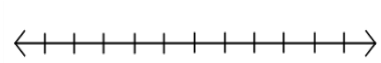
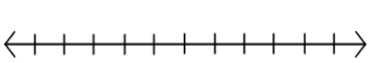
3R GRAPHING Inequalities Review Name: _____ Per: ____

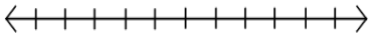
SHOW YOUR WORK FOR FULL CREDIT. NO WORK IN PEN.

Solve and graph the following 1- Variable Inequalities.

1. $3m + 2(m - 1) \leq 4m + 5$
2. $-(y + 4) > 3 + 2y$
3. $12 < -2(k - 4)$







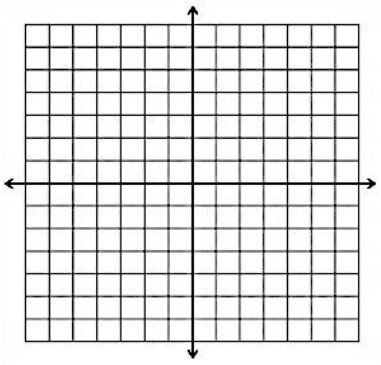
Answer the following.

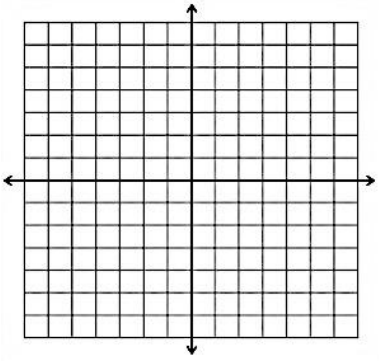
4. $-4x - 2y + 7 > 1 - 3x$
5. $-2y \leq 3(x - 4) + y$

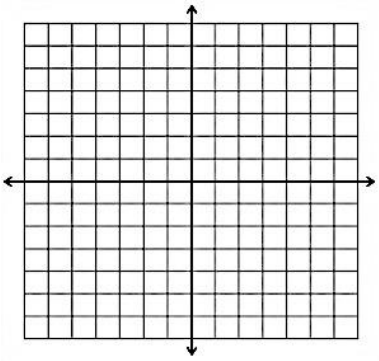
Slope: _____ y-int: _____ x-int: _____ Slope: _____ y-int: _____ x-int: _____

Solve and graph the following 2-Variable Inequalities.

6. $2x + 3y < 12$
7. $y + 2 \leq -2x + 4$
8. $-y + 2x > 4(x + 3)$



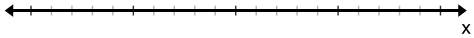


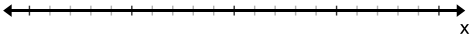


Solve the inequality.

9. $5(x^2 - 2) < -2 + 3x^2$
10. $-(3x^2 - 6) + 2x^2 \geq -3$

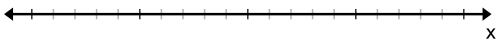
Extra Credit: Graph the solutions from the two problems above on the number lines below.



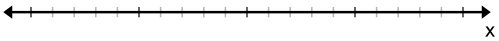


Write, solve and graph the following inequalities.

11. The sum of a number and five *is fewer than* three times the number minus eight.

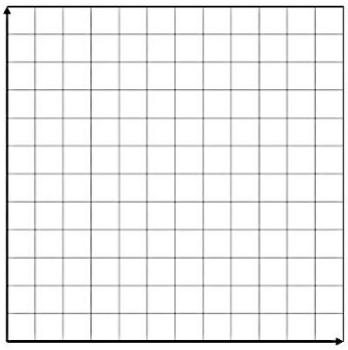


12. Twice a number increased by seven *is more than* three times the number decreased by two.

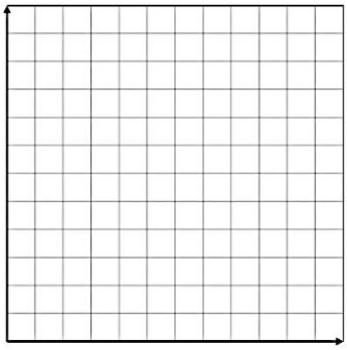


Write inequalities from context.

13. Pack of pencils cost $1.50 and notebook cost $3.25. I only have $25 in my pocket. Write an inequality to show the possible combination of pencils and notebooks I can buy with my $25 or less.
    a. Write an inequality.
    b. Find the intercepts
    c. Graph the inequality to show the possibilities

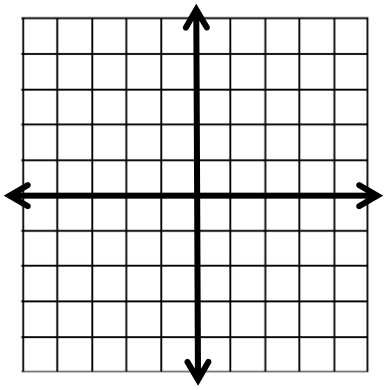


14. Sadie wants to sell bracelets for a fundraiser. She starts with $15 as a donation and profits at least $5.00 for each bracelet she sells.
    a. Define your variables.
    b. Write an inequality to show the money she has earned at any time.
    c. Graph the inequality to show the possibilities of money she can earn. Label the y-axis by 5 and the x-axis by 1.

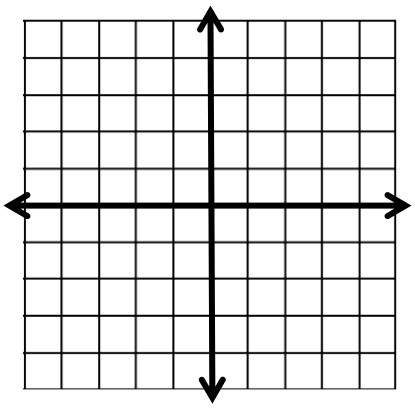


Graph the following inequalities.

15. $y \leq 3x + 4$



16. $y \geq \frac{3}{4}x + 5$



Graph these inequalities on top of the graphs above.

17. $2y > -2x + 4$

18. $y > -2x + 1$