

Name:

Date:

Chapter 5 Review

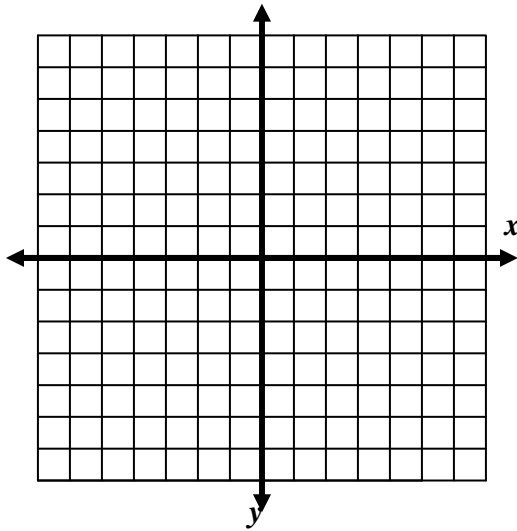
Algebra 1 302

Show all work.

1. What is a solution to a system of equations?

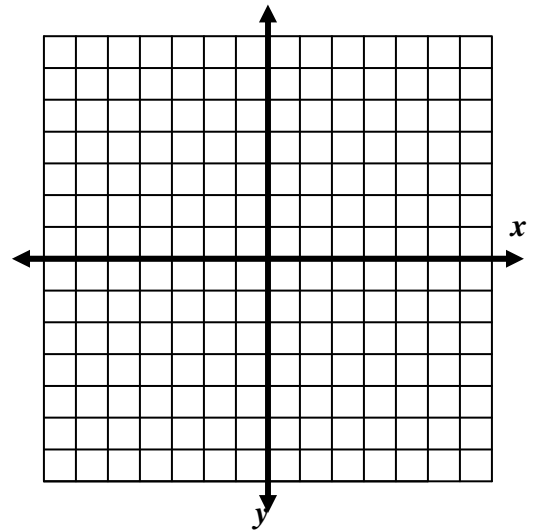
#2-3: Find the solution to the system of equations by graphing.

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



Solution (,)

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



Solution (,)

4. If the equations have the same rate of change but different starting values, what would be the solution to the system of equations? Explain your answer.

5-7: Solve the system of equations using substitution.

5.
$$4x + 3y = 31$$
$$y = 2x + 7$$

6.
$$-2x + 2y = 8$$
$$-x + y = 4$$

7.
$$-2x + y = -3$$
$$5x - 2y = 4$$

#8-10: Solve each system of equations using elimination.

8. $3x + 3y = -6$
 $x + 2y = 6$

9. $6x - 3y = -9$
 $2x + 3y = -12$

10. $4x + 6y = -30$
 $2x + 3y = -12$

#11-12: Solve each system of equation using the method of your choice. For full credit define your variables, write two equations and show all your work. Explain why you chose the method you used.

11. Your math teacher tells you that next week's test is worth 100 points and contains 38 problems. Each problem is worth either 5 points or 2 points. How many problems are worth 5 points? 2 points?

Variables:

Equations:

Solution:

Method & Why:

12. A 50 foot rope is cut into two pieces, one long piece and one short piece. The length of the long piece is 5 more than 4 times the length of the short piece. What is the length of each piece of rope?

Variables:

Equations:

Solution:

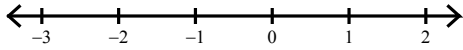
Method & Why:

REVIEW 5.5-5.7

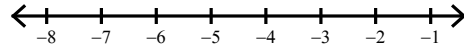
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Solve each inequality and graph its solution.

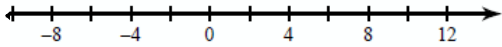
1) $3 + 5r \geq r - 1$



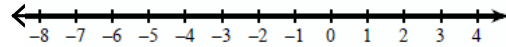
2) $1 + 2x + 1 \leq 3x + 2 + x + 8$



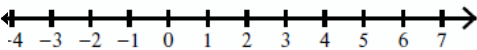
3) $-3 + |n - 2| > 5$



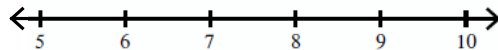
4) $|10 + 4x| < 14$



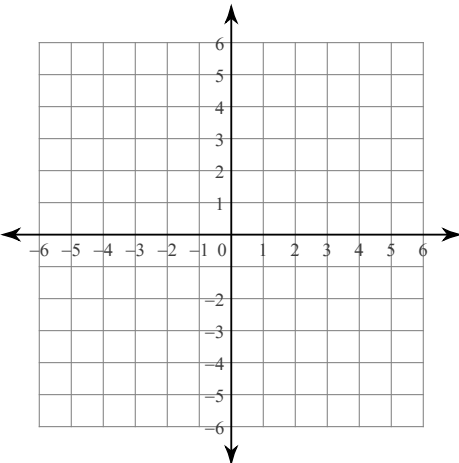
5) $4 - 7k < -3k - 4$ or $5k + 2 \leq 8 - k$



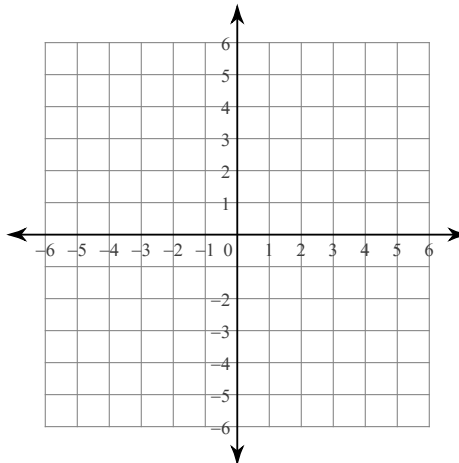
6) $-47 > 1 - 8m > -63$

**Sketch the graph of each linear inequality.**

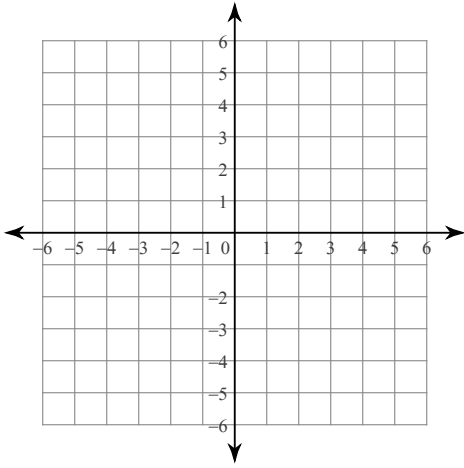
7) $y < -\frac{1}{2}x - 3$



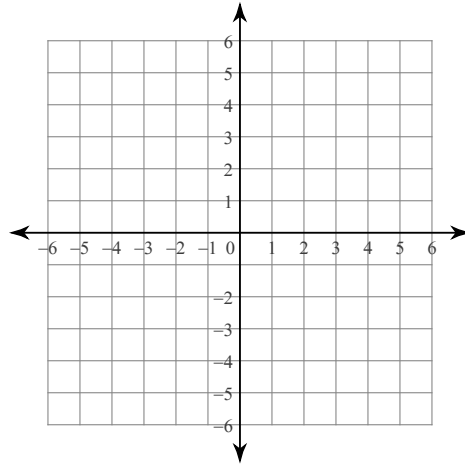
8) $y \geq \frac{3}{4}x$



9) $x - 3y \geq 12$

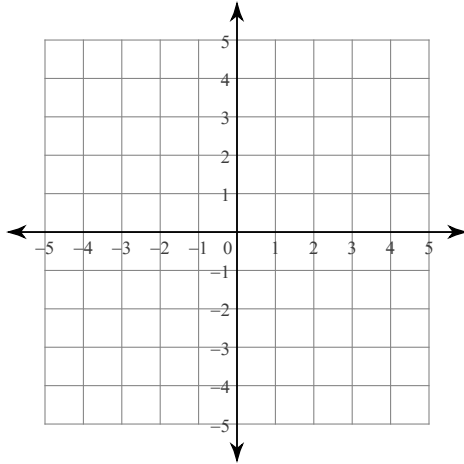


10) $x - 2y \geq 4$

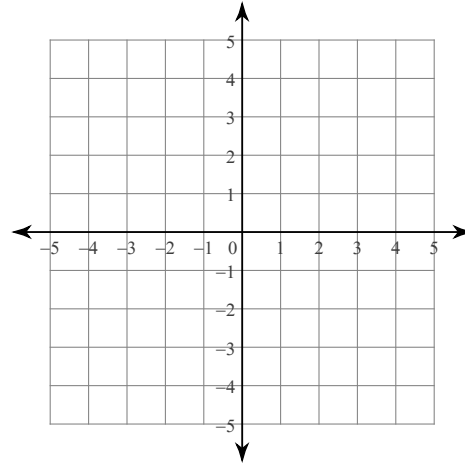


Sketch the solution to each system of inequalities.

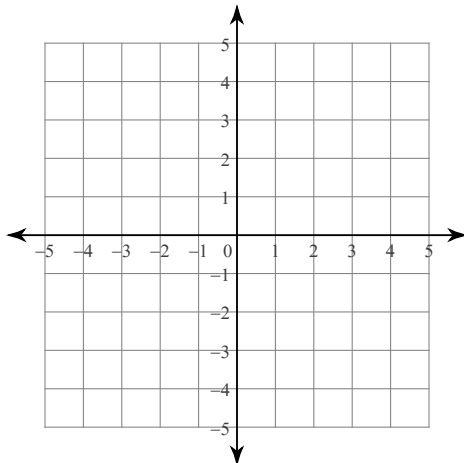
11) $y > 3x + 3$
 $y > \frac{1}{2}x - 2$



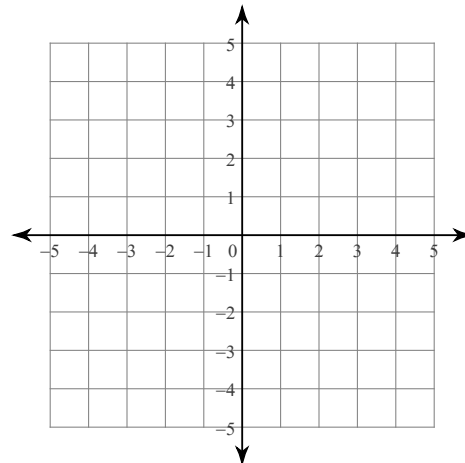
12) $y \leq -\frac{2}{3}x + 3$
 $y < 1$



13) $2x - y < 1$
 $x - 2y \leq -4$



14) $2x - y < -1$
 $x + y > -2$



Write the inequality for the solution that is shown on the graph.



