## Algebra Chapter 4
## Part 1 Test Review
## What is the use and the importance of systems of equations?

- We can solve equations with 2 variables.
- Way to solve more complex real world problems

**Give an advantage and a disadvantage of solving a system of equations by graphing.**

Good for visual learners, shows an obvious answer

It is not helpful unless you have whole #'s as answers. Fractions and decimals are not easy to find.

You should be able to…

- Graph inequalities on a number line.
- Graph *compound* inequalities

Solve the inequality.

3. $-1/3\, p \geq 7$

3. $p \leq -21$

4. $3k - 7 < 14$

4. $k < 7$

Solve the compound inequality/absolute value.

7. $2 \leq 3j - 4 < 8$

7. $2 \leq j < 4$ or $j \geq 2$ and $j < 4$

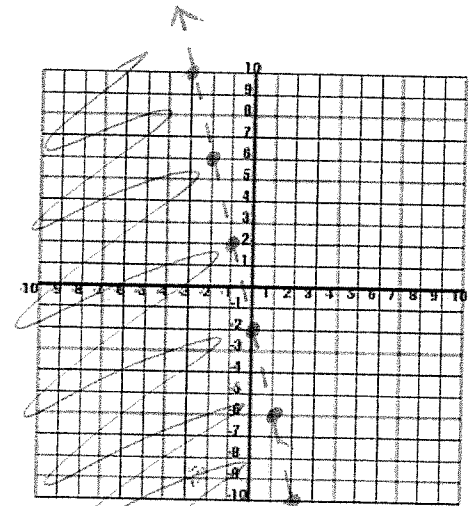8. $|c + 8| > 16$

8. $c < -24$ or $c > 8$

9. $|5t - 2| \leq 8$

9. $\frac{-6}{5} \leq t \leq 2$ or
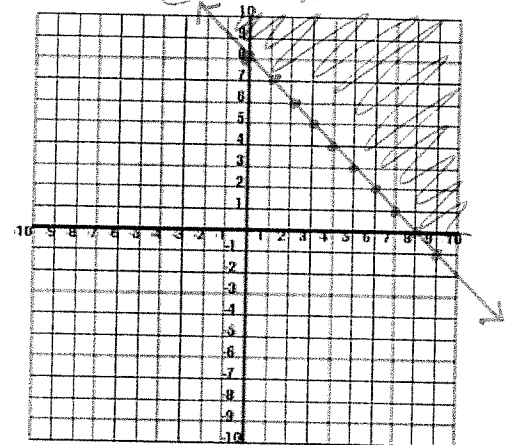
$t \geq \frac{-6}{5}$ and $t \leq 2$

Graph the inequality.

10. $y < -4x - 2$

11. $2x + 2y \geq 16$

$$y \geq -x + 8$$

How many solutions does the system of equations have?

12.  $4x - 6y = 12$

$-2x + 3y = -6$

12. $\infty$ solutions

13.  $y = \frac{1}{2}x$

$y = x + 5$

13. 1 solution

Solve the system of equations by graphing.

14.  $y = 3x + 2$

$y = -2x + 7$

14. $(1, 5)$