

Algebra 1 Ch. 6 review
Quiz today 6.5- 6.6
Test Tues. Ch. 6

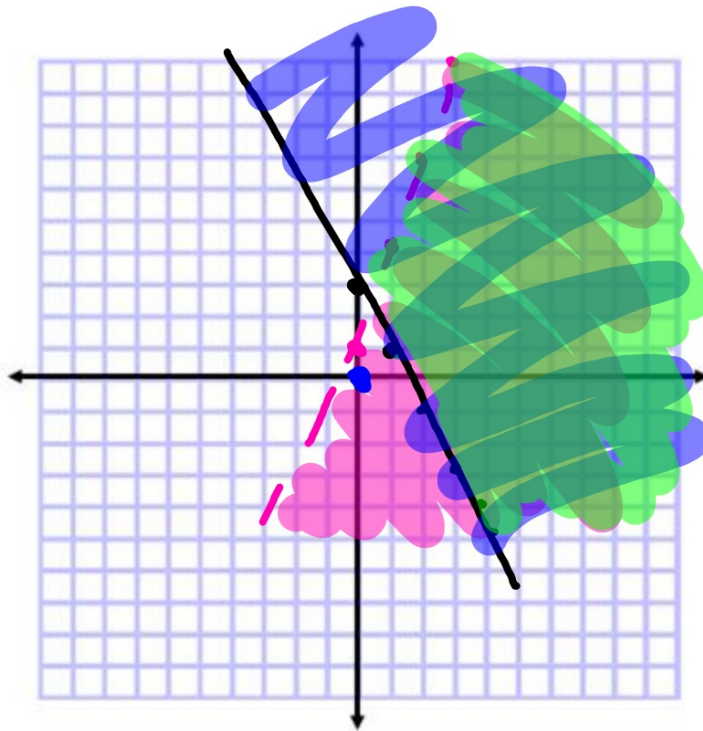
Example 6

Solve the system of inequalities by graphing.

$$\begin{aligned} \rightarrow y < 3x + 1 & \quad 1 < 3 \cdot 1 + 1 \\ y \geq -2x + 3 & \quad 1 \geq -2 \cdot 1 + 3 \\ & \quad 0 \geq 0 + 3 \\ & \quad 0 \geq 3 \end{aligned}$$

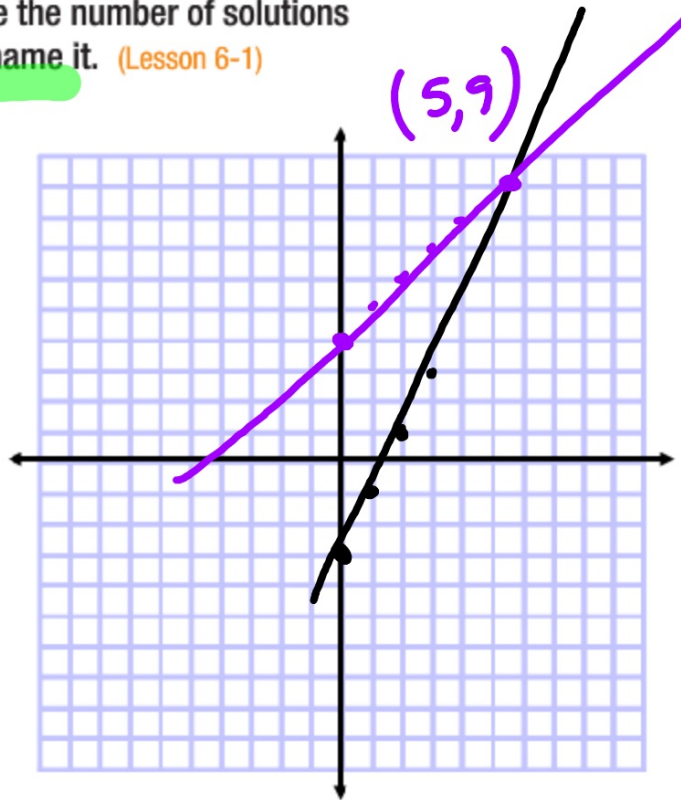
$$y = \frac{3}{1}x + 1$$

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



Graph each system and determine the number of solutions that it has. If it has one solution, name it. (Lesson 6-1)

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



(4, 8)

Use substitution to solve each system of equations.

(Lesson 6-2)

9. $y = x + 4$

$2x + y = 16$

$2 \cdot 4 + 8 = 16$

$2x + (x + 4) = 16$

$3x + 4 = 16$

$-4 \quad -4$

$3x = 12$

10. $y = -2x - 3$

$x + y = 9$

Use elimination to solve each system of equations. $(5, 2)$

(Lessons 6-3 and 6-4)

16. $x + y = 9$
 $x - y = -3$

→ 17. $x + 3y = 11$ $\xrightarrow{-1}$ $-x + -3y = -11$
 $x + 7y = 19$ $x + 7y = 19$

$$x + 3 \cdot 2 = 11$$

$$x + 6 = 11$$
$$\begin{array}{r} -6 \quad -6 \\ \hline \end{array}$$

$$x = 5$$

$$5 + 7 \cdot 2 = 19$$

$$5 + 14 = 19$$

$$\frac{4y}{4} = \frac{8}{4}$$

Example 5

Determine the best method to solve the system of equations. Then solve the system.

$$3x + 5y = 4$$

$$4x + y = -6$$

$$\begin{array}{r} 4 \cdot (-2) + 2 = -6 \\ 4 \cdot (-2) + 2 = -6 \\ 4 \cdot (-2) + 2 = -6 \end{array}$$
$$(-2, 2)$$

$$\begin{array}{r} 3x + 5y = 4 \\ -20x - 5y = 30 \end{array} \xrightarrow{-5}$$

$$\begin{array}{r} -17x = 34 \\ \hline -17 \quad -17 \end{array}$$

$$\begin{array}{r} 3 \cdot (-2) + 5y = 4 \\ -6 + 5y = 4 \\ +6 \quad +6 \end{array}$$

$$\begin{array}{r} 5y = 10 \\ \hline 5 \quad 5 \end{array} \quad x = -2$$

