Algebra 1 Ch. 6 review
Quiz 6.5- 6.6
whiteboards?

Example 6

Solve the system of inequalities by graphing.

$y < 3x + 1$

$y \geq -2x + 3$

$1 < 3(1) + 1$

$1 < 3 + 1$

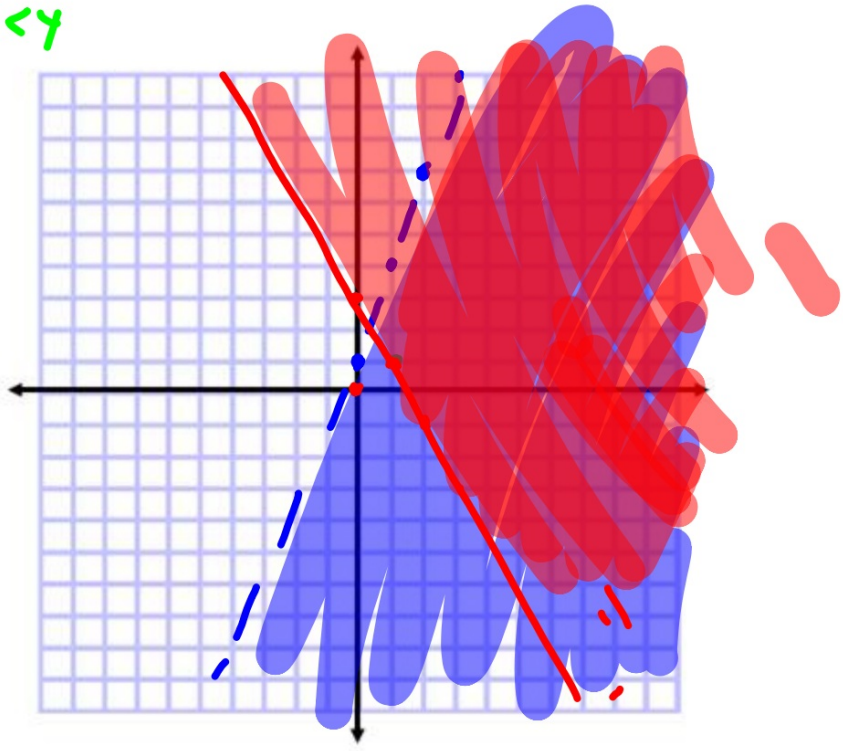
$1 < 4$

$y = 3x + 1$

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

$0 \geq 0 + 3$

$0 \geq 3$



49. COINS Tionna has saved dimes and quarters in her piggy bank. Define the variables, and write a system of equations to determine the number of dimes and quarters. Then solve the system using the best method for the situation.

d q

15 dime
10 quarter

1.50
2.50

$d + q = 25$ $\xrightarrow{-.25}$

$.10d + .25q = 4.00$

$-.25d - .25q = -6.25$

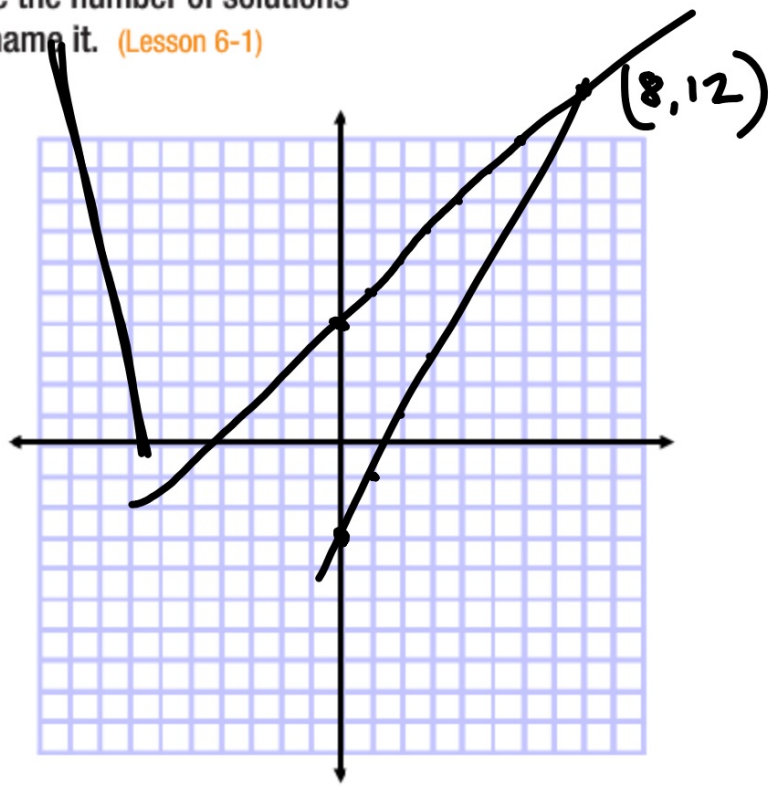
$-.15d = -2.25$

$\frac{-.15d}{-.15} = \frac{-2.25}{-.15}$

$d = 15$

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

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



(4, 8) 11

[redacted] solve each system of equations.

(Lesson 6-2) $y = 4 + 4$

9. $y = x + 4$
$2x + y = 16$

$2 \cdot 4 + 8 = 16$
$8 + 8 = 16$

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

$3x + 4 = 16$
$-4 \quad -4$

$\frac{3x}{3} = \frac{12}{3}$

10. $y = -2x - 3$
$x + y = 9$

$y = x + 4$
$-x \quad -x$

$-x + y = 4$ $\xrightarrow{-1}$ $x - y = -4$
$2x + y = 16$ $\quad 2x + y = 16$

$3x = 12$

Use [redacted] to solve each system of equations.

(Lessons 6-3 and 6-4)

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

17. $x + 3y = 11$
$x + 7y = 19$

(5, 2)

$-1 \rightarrow -x - 3y = -11$
$x + 7y = 19$

$4y = 8$
$\frac{4y}{4} = \frac{8}{4}$
$y = 2$

$5 + 7 \cdot 2 = 19$
$5 + 14 = 19$

$x + 3 \cdot 2 = 11$
$x + 6 = 11$
$-6 \quad -6$
$x = 5$

$4 \cdot -2 + 2 = -6$

$-8 + 2 = -6$

Example 5

$\therefore (-2, 2)$

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

$3x + 5y = 4$

$4x + y = -6$ $\xrightarrow{-5}$ $-20y - 5y = 30$

$3x + 5y = 4$

$3 \cdot -2 + 5y = 4$

$-6 + 5y = 4$

$+6 \quad +6$

$5y = 10$

$-17y = 34$

$\frac{-17y}{-17} = \frac{34}{-17}$

.08

4-5

Solve by graphing

4) $y < x + 3$
$y \geq 2x - 1$

5) $2x + y \leq 6$
$x - y < 3$