

6.1-6.3 Review

Date _____

Period _____

Solve each system by elimination.

$$\begin{aligned} 1) \quad & 7x + 5y = 13 \\ & -7x - 5y = -4 \end{aligned}$$

No solution

$$\begin{aligned} 3) \quad & -9x - 10y = 0 \\ & -9x + 8y = 0 \end{aligned}$$

(0, 0)

$$\begin{aligned} 5) \quad & 12x + 9y = 0 \\ & 6x + 3y = 6 \end{aligned}$$

(3, -4)

$$\begin{aligned} 7) \quad & -4x - 3y = 15 \\ & 9x - 4y = -23 \end{aligned}$$

(-3, -1)

$$\begin{aligned} 2) \quad & -2x + 5y = -6 \\ & 2x + 7y = -18 \end{aligned}$$

(-2, -2)

$$\begin{aligned} 4) \quad & -8x - y = -7 \\ & -10x - y = -11 \end{aligned}$$

(2, -9)

$$\begin{aligned} 6) \quad & -7x + 20y = -28 \\ & x + 10y = 4 \end{aligned}$$

(4, 0)

$$\begin{aligned} 8) \quad & -6x + 6y = 6 \\ & -8x + 10y = 10 \end{aligned}$$

(0, 1)

Solve each system by substitution.

$$\begin{aligned} 9) \quad & 4x + y = 12 \\ & 5x + 8y = -12 \end{aligned}$$

(4, -4)

$$\begin{aligned} 11) \quad & -3x + y = 22 \\ & -5x - 8y = -2 \end{aligned}$$

(-6, 4)

$$\begin{aligned} 10) \quad & x + y = 3 \\ & 8x + 2y = 0 \end{aligned}$$

(-1, 4)

$$\begin{aligned} 12) \quad & -3x + y = 11 \\ & 7x + 7y = 21 \end{aligned}$$

(-2, 5)

Solve each system by graphing.

$$13) \quad y = -\frac{5}{2}x + 2$$

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

(2, -3)

$$15) \quad \frac{1}{3}y = -1 - \frac{1}{6}x$$

$$-8 - 3x = -4y$$

(-4, -1)

15)

$$3 \left(\frac{1}{3}y = -1 - \frac{1}{6}x \right)$$

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

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

$$\begin{aligned} -8 - 3x &= -4y \\ -4 & \end{aligned}$$

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

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

$$14) \quad \begin{aligned} y &= 6x + 3 \\ y &= x - 2 \end{aligned}$$

(-1, -3)

$$16) \quad \begin{aligned} 3x &= 3y + 6 \\ 0 &= -9 + 3y - 18x \end{aligned}$$

(-1, -3)

$$\begin{aligned} 3x &= 3y + 6 \\ -6 & \quad -6 \end{aligned}$$

$$\frac{3x - 6 = 3y}{3}$$

$$y = x - 2$$

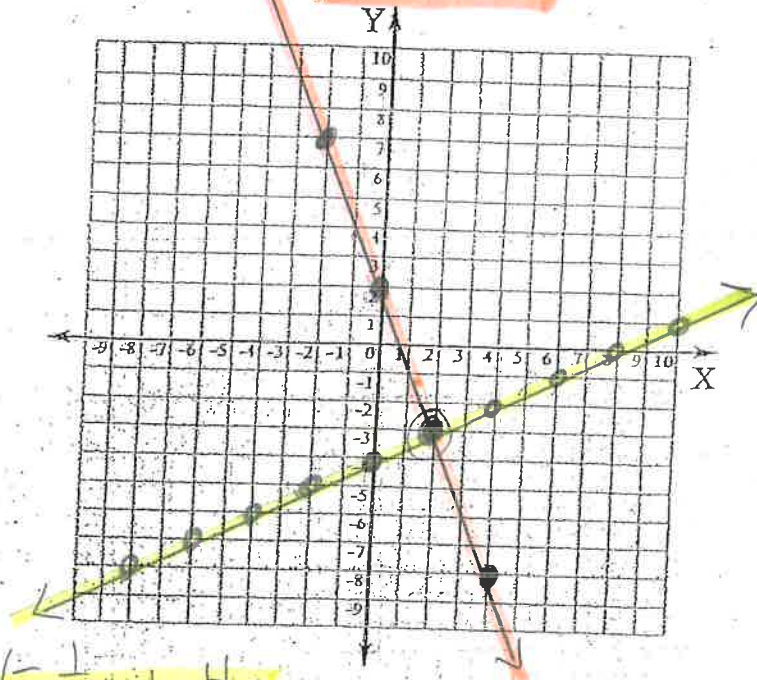
$$\begin{aligned} 0 &= -9 + 3y - 18x \\ -3y & \quad -3y \end{aligned}$$

$$\frac{-3y = -9 - 18x}{-3}$$

$$y = 3 + 6x$$

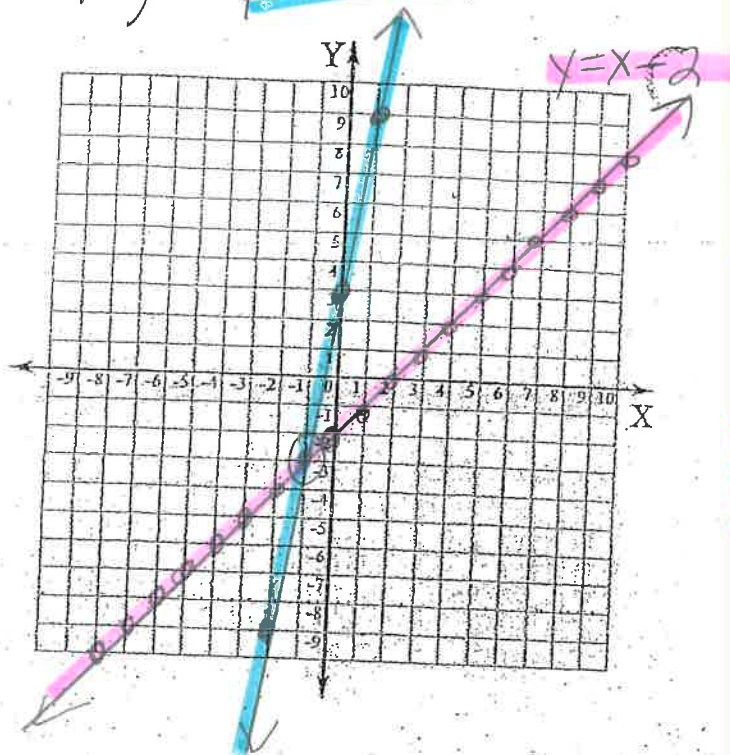
$$y = 6x + 3$$

13) $y = -\frac{5}{2}x + 2$



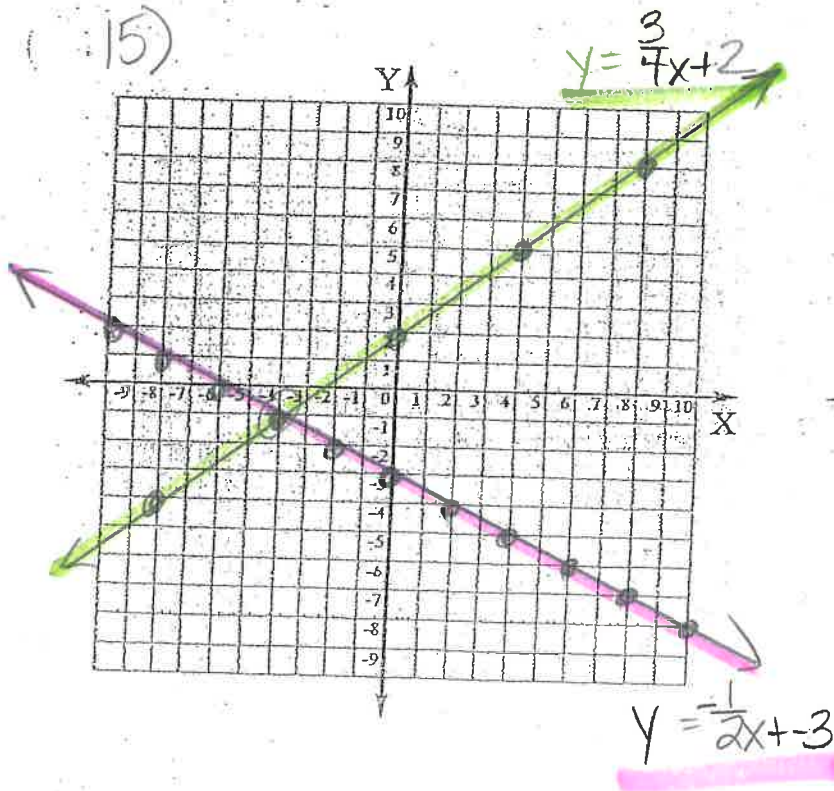
$y = \frac{1}{2}x - 4$

14) $y = 6x + 3$



$y = x + 2$

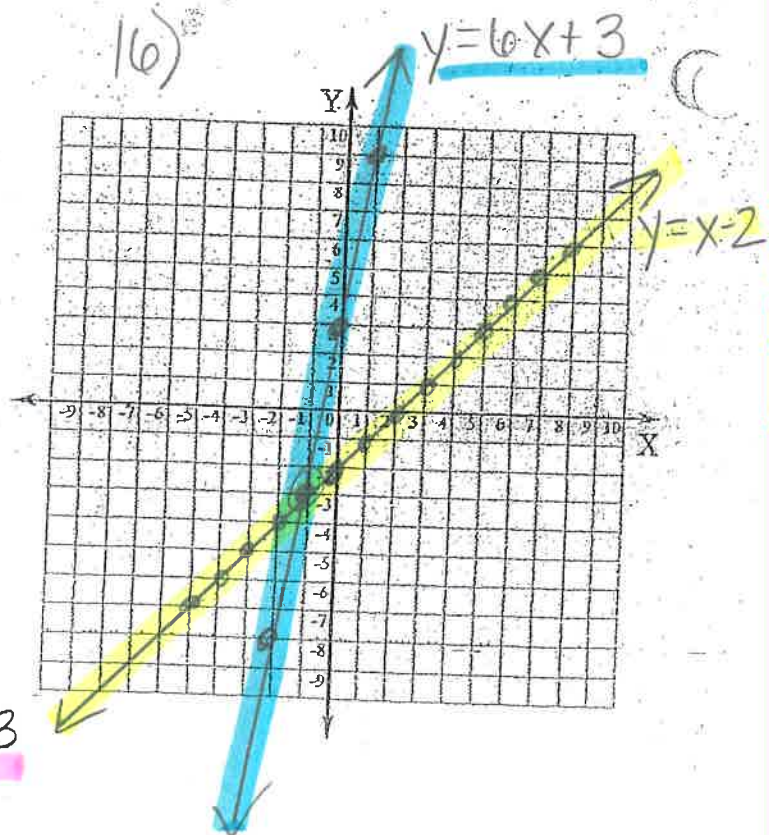
15)



$y = \frac{3}{7}x + 2$

$y = \frac{1}{7}x - 3$

16)

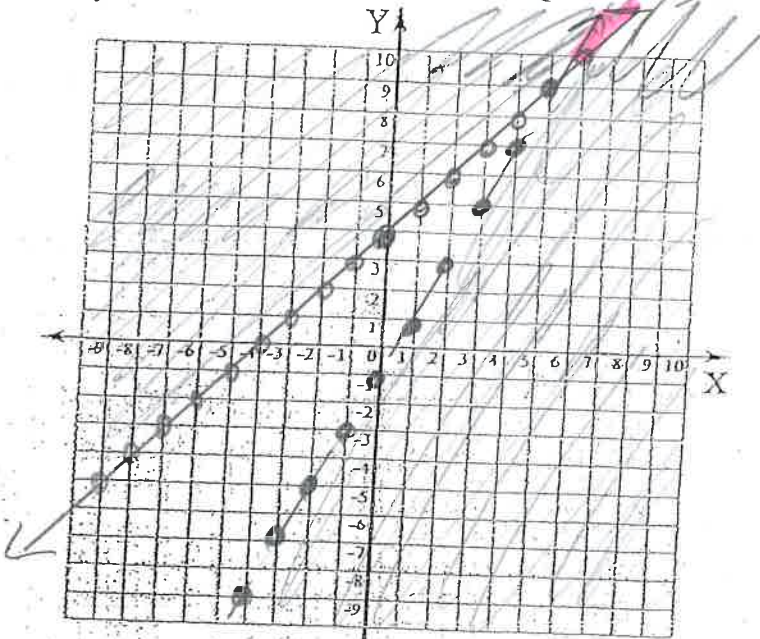


$y = 6x + 3$

$y = x - 2$

26)

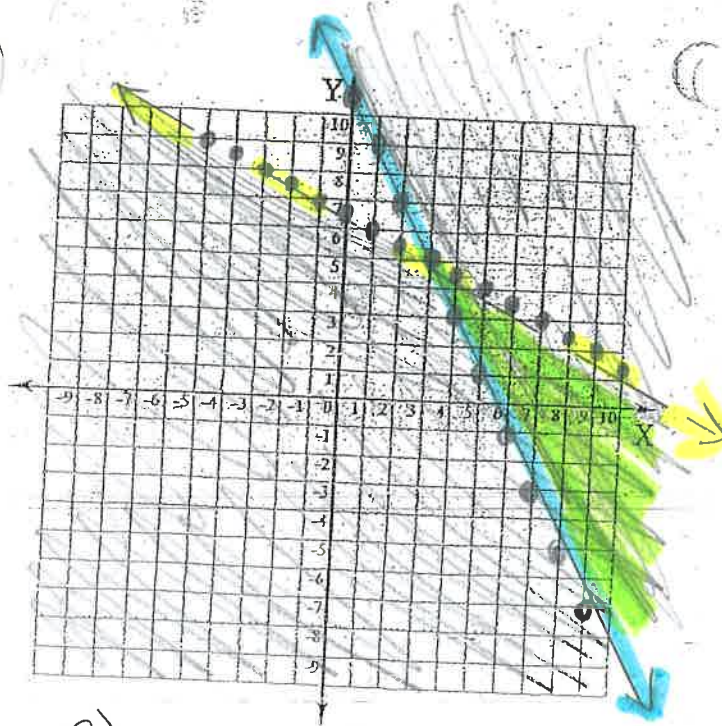
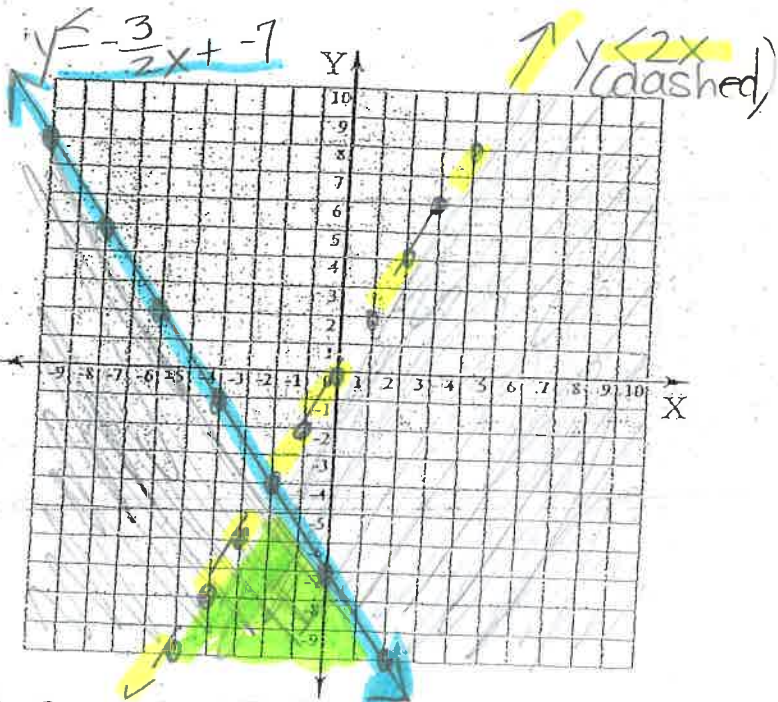
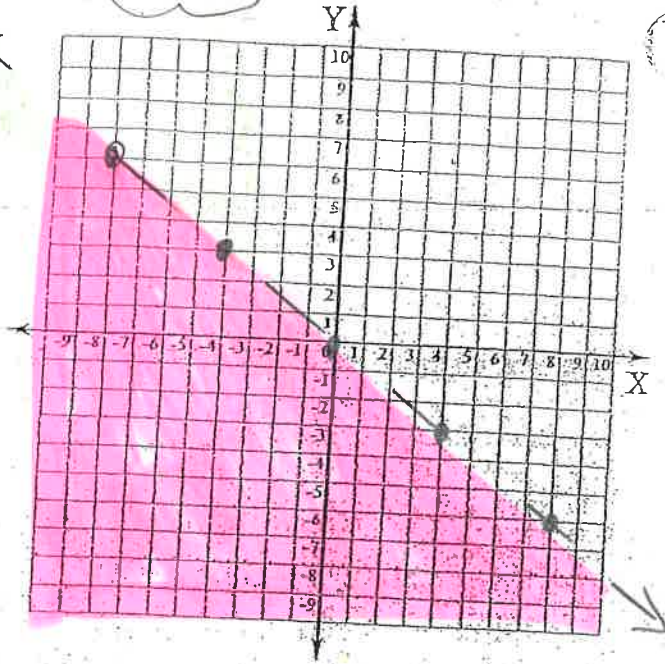
$y \geq x + 4$
(solid)



$y < 2x - 1$
(Dashed)

$\frac{4y < -3x}{4}$

27) $y < \frac{3}{4}x$ same line



28) $2x - y > 0$
 $-2x \quad -2x$
 $(-y > -2x) \cdot (-1)$
 $y < 2x$

$3x + 2y \leq -14$
 $-3x \quad -3x$
 $2y \leq -3x - 14$
 $\frac{2y}{2} \leq \frac{-3x - 14}{2}$
 $y \leq -\frac{3}{2}x - 7$

* FLIP *

29) $y < -0.5x + 6.5$ (dashed)

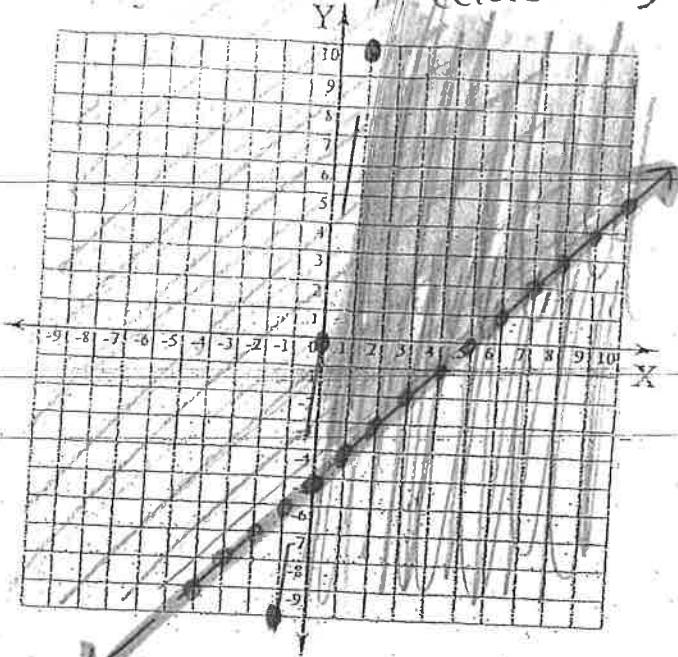
$y \geq -2x + 11$ (solid)

* WORK ATTACHED * *

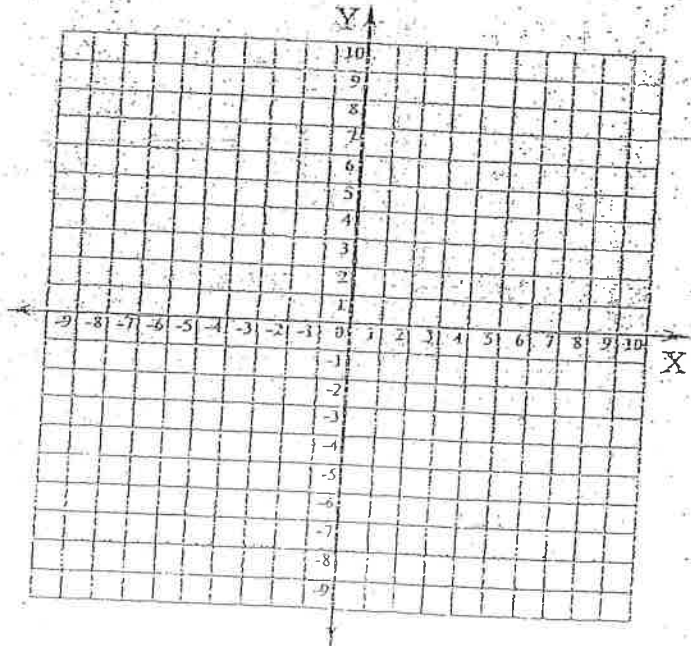
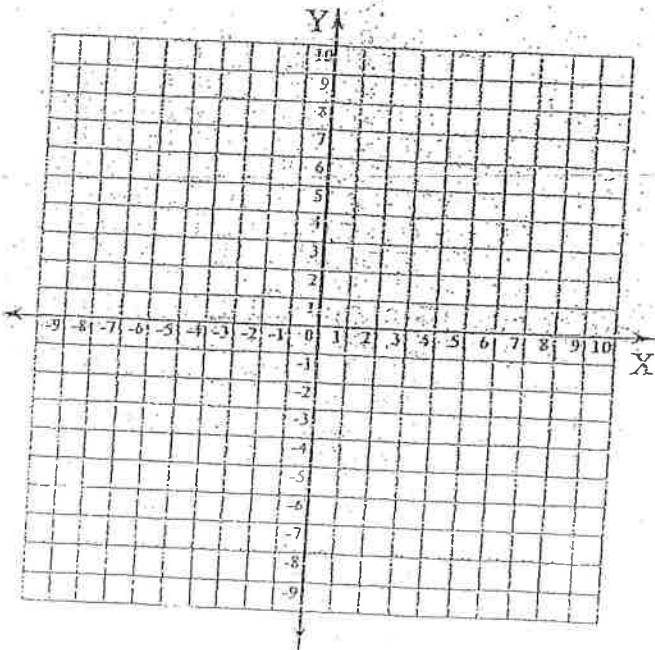
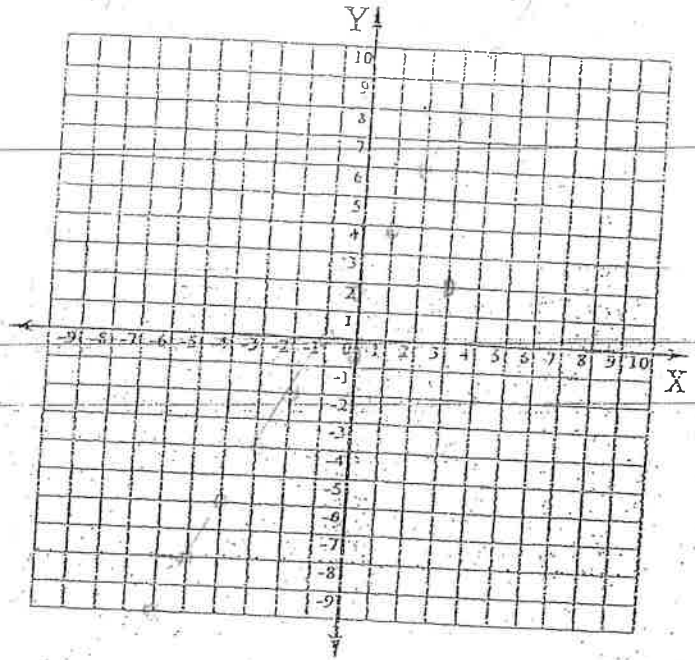
BELOW

30)

$y < 10x$
(dashed)



$y > x - 5$



$$29) \quad x + 0.5y \geq 5.5$$

$$\begin{array}{r} -x \\ 2(0.5y \geq -x + 5.5) \\ y \geq -2x + 11 \end{array}$$

$$\begin{array}{r} 0.5x + y < 6.5 \\ -0.5x \quad y \quad -0.5x \end{array}$$

$$y < -0.5x + 6.5$$

$$31) \quad \frac{4x+4}{2} > 2y$$

$$y < 2x + 2$$

$$\begin{array}{r} 3x - 4y \geq 1 \\ -3x \quad -3x \end{array}$$

$$\frac{-4y \geq -3x + 1}{-4}$$

FLIP

$$y \leq \frac{3}{4}x + \frac{-1}{4}$$

Do NOT graph

S = # of song files

V = # of video files

$$32) \quad 60 \geq 3.5S + 8V$$

$$12 \leq S + V$$

$$60 \geq 3.5S + 8V$$

$$-8V \qquad -8V$$

$$-8V + 60 \geq 3.5S - 1.5V$$

$$3.5S - 1.5V \leq 60$$

$$3.5S - 1.5V \leq 60$$

$$3.5S - 1.5V \leq 60$$

~~3.5S - 1.5V~~

$$1 + 8V \geq 12$$

$$8V \geq 11$$

$$V \geq 1.375$$

$$3.5S + 8V \leq 60$$

$$3.5S + 8(1.375) \leq 60$$

$$3.5S + 11 \leq 60$$

$$3.5S \leq 49$$

$$S \leq 14$$

14 song files