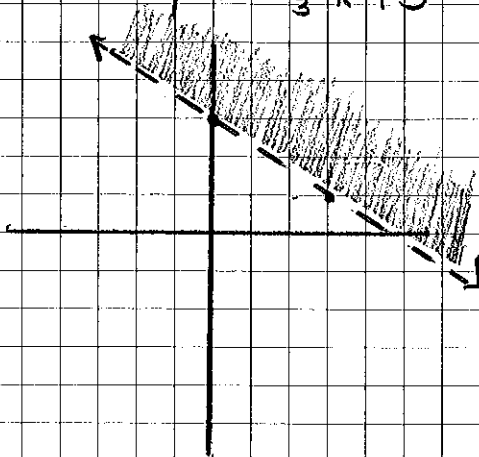
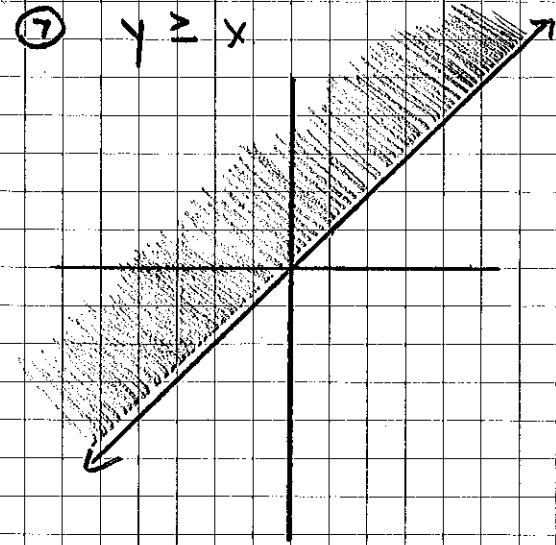


4.5 K

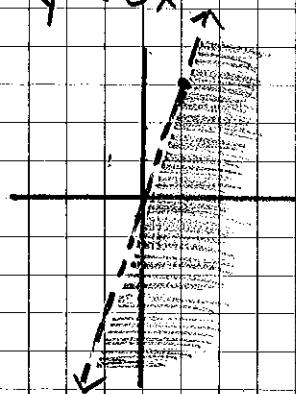
$$\begin{array}{r} 2x + 3y > 9 \\ -2x \quad -2x \\ \hline 3y > -2x + 9 \\ \frac{3y}{3} > \frac{-2x}{3} + \frac{9}{3} \\ \hline y > -\frac{2}{3}x + 3 \end{array}$$



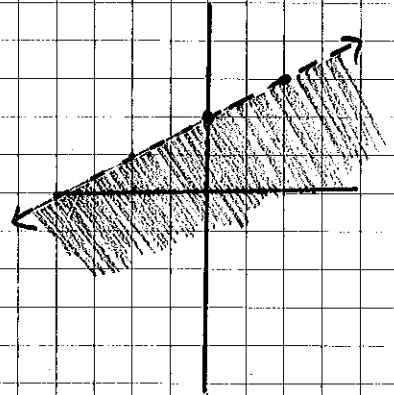
$$\textcircled{7} \quad y \geq x$$



$$\begin{array}{l} \textcircled{8} \quad 3x > y \\ y < 3x \end{array}$$



$$\begin{array}{r} x - 2y > -4 \\ -x \quad -x \\ \hline -2y > -x - 4 \\ \frac{-2y}{-2} > \frac{-x}{2} - \frac{4}{2} \\ \hline y < \frac{x}{2} + 2 \end{array}$$



$$\begin{array}{r} \textcircled{10} \quad 5x + 5y > -10 \\ -5x \quad -5x \\ \hline 5y > -5x - 10 \\ \frac{5y}{5} > \frac{-5x}{5} - \frac{10}{5} \\ \hline y > -x - 2 \end{array}$$



4.5 K

(11)

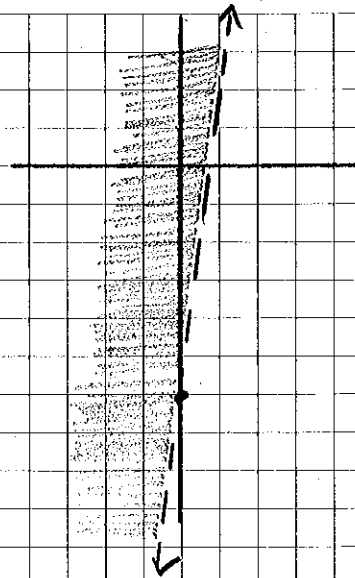
$$4x - \frac{1}{2}y < 3$$

$$\begin{array}{r} 4x - \frac{1}{2}y < 3 \\ -4x \qquad \qquad -4x \end{array}$$

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

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

$$y > 8x - 6$$

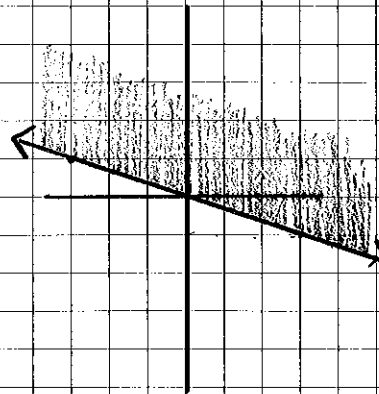


(12)

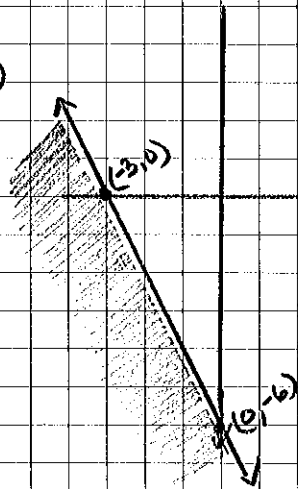
$$\frac{x}{3} \leq \frac{-3y}{3}$$

$$-\frac{x}{3} \geq y$$

$$y \leq -\frac{x}{3}$$



(20)



$$y\text{-int is } -2.$$

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 0}{0 - (-3)} = \frac{-2}{3} = -\frac{2}{3}$$

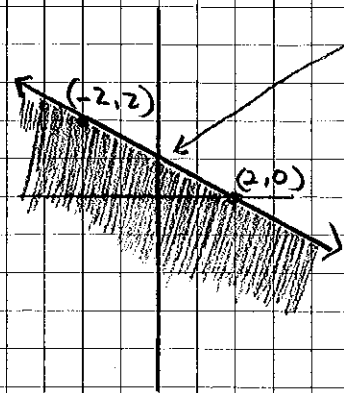
$$y = mx + b$$

$y = -\frac{2}{3}x - 2$ is the equation of the line,
but it is shaded below the line which means less than.
It is a solid line which means "or equal to".

$$y < -\frac{2}{3}x - 2$$

4.5 K

(21)



Find the y-int: $y = 1$

$$\text{Find the slope: } m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 0}{-2 - 2} = \frac{2}{-4} = -\frac{1}{2}$$

$$y = mx + b$$

$y = -\frac{1}{2}x + 1$ is the equation of the line, but the region below the line is shaded, so that means "less than". The line is solid, so that means "or equal to".

$$y \leq -\frac{1}{2}x + 1$$

(23)

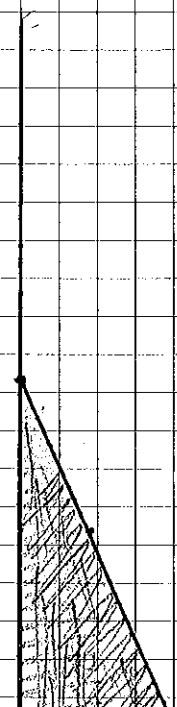
$x =$ adult tickets
 $y =$ student tickets

adult tickets are 7.50 $7.5x$
 student tickets are 3.50 $3.5y$

They want to sell at least \$200.
 (\geq)

$$\begin{array}{r} 7.5x + 3.5y \geq 200 \\ -7.5x \qquad \qquad -7.5x \\ \hline 3.5y \geq -7.5x + \frac{200}{3.5} \\ \frac{3.5}{3.5} \qquad \frac{3.5}{3.5} \qquad \frac{3.5}{3.5} \\ \hline y \geq -\frac{15}{7}x + 57\frac{1}{7} \end{array}$$

$$\begin{array}{r} 7.5(15) + 3.5y \geq 200 \\ 112.50 + 3.5y \geq 200 \\ -112.50 \qquad \qquad -112.50 \\ \hline 3.5y \geq 87.50 \\ \frac{3.5}{3.5} \qquad \frac{3.5}{3.5} \\ \hline y \geq 25 \end{array}$$



EACH BLOCK = 4 units

4.5 K

(24)

x = number of games

Each game is \$0.25 $0.25x$

y = number of rides

Each ride is \$0.50 $0.5y$

$$0.25x + 0.5y \leq 5$$

$$\begin{array}{r} -0.25x \\ \hline \end{array} \qquad \begin{array}{r} -0.25x \\ \hline \end{array}$$

$$\frac{0.5y}{0.5} \leq \frac{-0.25x + 5}{0.5}$$

$$y \leq -\frac{1}{2}x + 10$$

20 games or 10 rides

