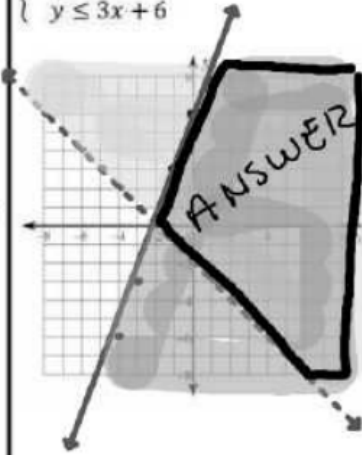
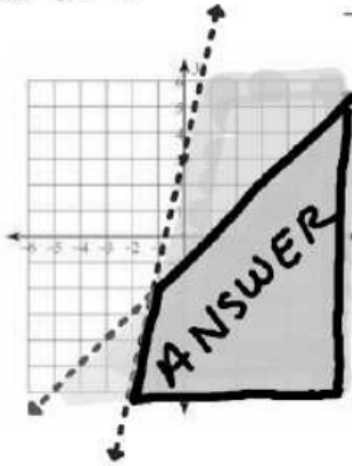


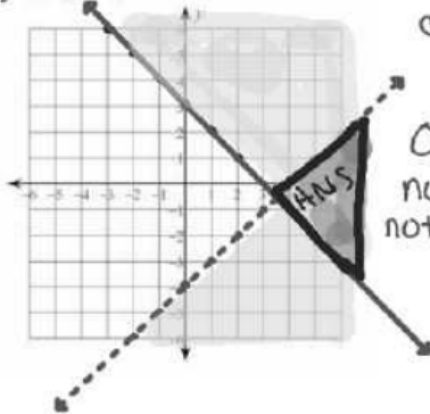
Name:	Date:
Topic/Objective: 6.6 Solve systems of linear inequalities	Class/Period:

Questions/Main Ideas:	Notes:
<p>Steps to Graph a systems of linear Inequalities</p> <p>Step 1: Graph both inequalities on the same plane.</p> <p>Step 2: Determine the area where the shading overlaps and write the word "ANSWER"</p>	<p>Graph the system of inequalities:</p> $\begin{cases} y > -x - 2 \\ y \leq 3x + 6 \end{cases}$  <p> $y > -x - 2$ choose $(0,0)$ $0 > -2$ True; shaded $y \leq 3x + 6$ choose $(0,0)$ $0 \leq 6$ True; shaded </p>
	<p>Graph the system of inequalities</p> $\begin{cases} x - y > 1 \\ 5x - y > -3 \end{cases}$  <p> $x - y > 1$ $-x \quad -x$ $-y > -x + 1$ $\frac{-y}{-1} > \frac{-x+1}{-1}$ $y < x - 1$ choose $(0,0)$ $0 < -1$ not true not shaded </p> <p> $5x - y > -3$ $-5x \quad -5x$ $-y > -5x - 3$ $\frac{-y}{-1} > \frac{-5x-3}{-1}$ $y < 5x + 3$ choose $(0,0)$ $0 < 3$ True; shaded </p>

Guided Practice

$$y < x - 4$$

$$y \geq -x + 3$$

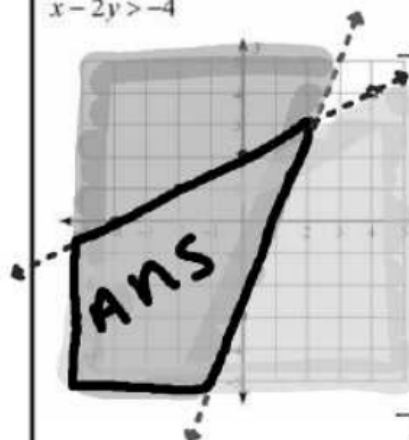


$y < x - 4$
 choose
 $(0, 0)$
 $0 < -4$
 not true
 not shaded

$y \geq -x + 3$
 Choose
 $(0, 0)$
 $0 \geq 3$
 not true
 not shaded

$$3x - y < 3$$

$$x - 2y > -4$$



$$3x - y < 3$$

$$\begin{array}{r} -3x \\ \hline -y < -3x + 3 \\ \hline -1 \quad -1 \end{array}$$

$y > 3x - 3$
 choose
 $(0, 0)$
 $0 > -3$
 True
 Shaded

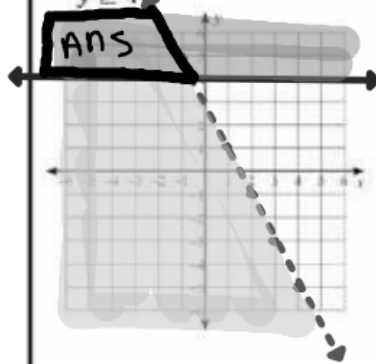
$$x - 2y > -4$$

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

$y < \frac{1}{2}x + 2$ choose
 $(0, 0)$ True
 $0 < 2$ Shaded

$$y < -2x + 3$$

$$y \geq 4$$



$$y < -2x + 3$$

$$(0,0)$$

$$0 < 3$$

True;
Shaded

$$y \geq 4$$

$$0 \geq 4$$

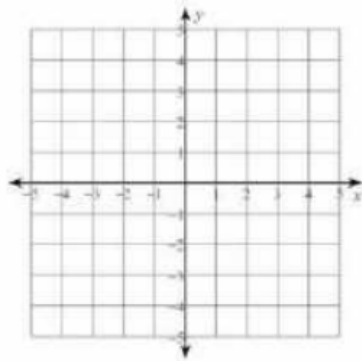
not true

$$(0,0)$$

not shaded

$$2x + 3y \geq -9$$

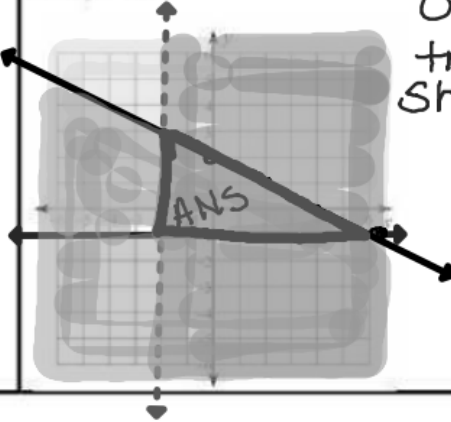
$$4x - 3y < -9$$



$$y \geq -1$$

$$x > -2$$

$$x + 2y \leq 4$$



$$y \geq -1$$

$$0 \geq -1$$

true;
Shaded

$$x > -2$$

$$0 > -2$$

true;
shaded

$$x + 2y \leq 4$$

$$\frac{-x}{2} \quad \frac{-x}{2}$$

$$\frac{2y \leq -x + 4}{2} \quad \frac{-x}{2}$$

$$\frac{2y}{2} \leq \frac{-x + 4}{2}$$

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

$$0 \leq 2$$

True
Shaded

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Summary:	