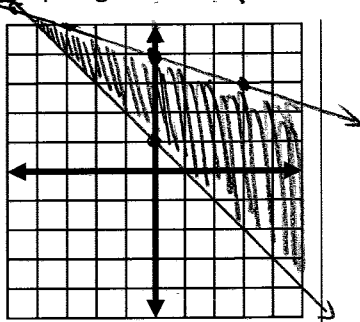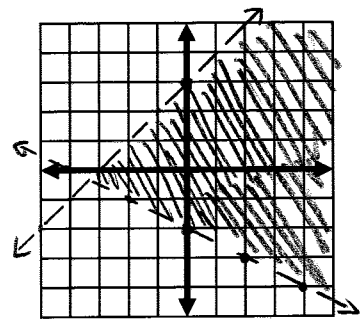Per: _____ ☐

6-6 Solve a System of Linear Inequalities

Solve each system by graphing:

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

   $y \geq -x + 1$

(4)

2. $x - y > -3$

   $x + 2y > -4$

(6)

$$x - y > -3$$
$$\underline{-x \qquad -x}$$
$$-y > -x - 3$$
$$\overline{-1} \quad \overline{-1} \quad \overline{-1}$$

$\boxed{y < x + 3}$

Check $(0,0)$

$0 > -3 \checkmark$

$\boxed{x - y > -3}$

$$x + 2y > -4$$
$$\underline{-x \qquad -x}$$
$$\dfrac{2y}{2} > \dfrac{-x}{2} \dfrac{-4}{2}$$

$\boxed{y > -\dfrac{1}{2}x - 2}$

Check: $(0,0)$

$\boxed{x + 2y > -4}$

$0 > -4 \checkmark$