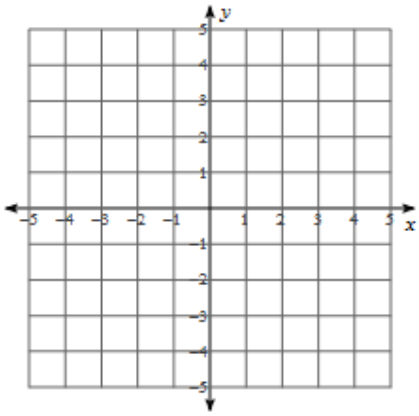
5.7a - Systems of Inequalities

A system of inequalities is a combination of graphing inequalities and a system of equations. Our systems will have 2 inequalities to graph and shade.

Example:

1) $y > -\frac{5}{3}x - 2$

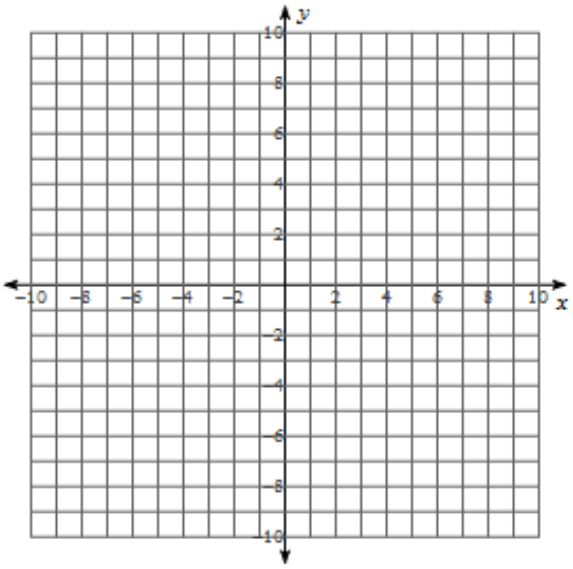
$y > -\frac{1}{3}x + 2$



Now You Try...

2) $y < -\frac{7}{4}x + 6$

$x > 4$



Tell whether each ordered pair is a solution of the system of linear inequalities.

$y < 2x$ Inequality 1

$y \geq x + 1$ Inequality 2

a. (3, 5)

b. (−2, 0)

Now You Try...

Tell whether the ordered pair is a solution of the system of linear inequalities.

1. (−1, 5); $y < 5$, $y > x - 4$

2. (1, 4); $y \geq 3x + 1$, $y > x - 1$