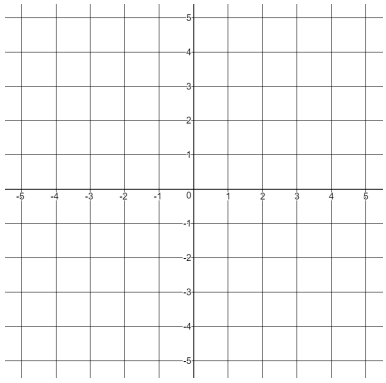
Linear Inequalities

Solutions

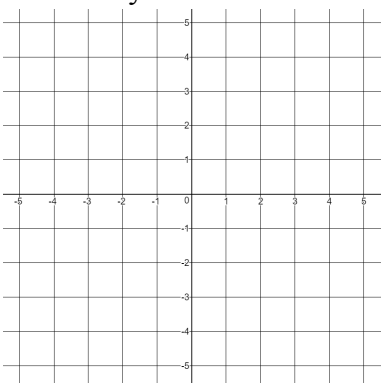
Is the ordered pair (-2, 1) a solution to the inequality $3x + y < -4$?

Graphing: Shows all of the solutions in the coordinate plane

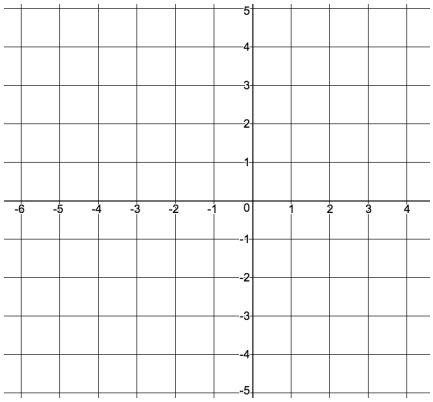
$y \leq \frac{1}{3}x - 4$



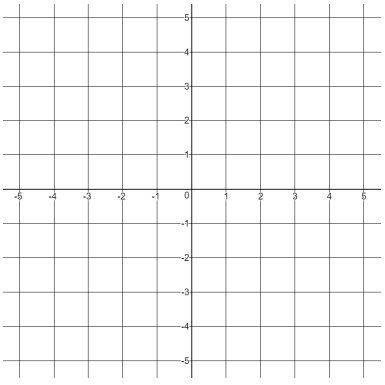
$y > -x + 2$



$2x - 3y \geq -12$



$x + 2y \geq 4$



Which ordered pair is in the solution set of

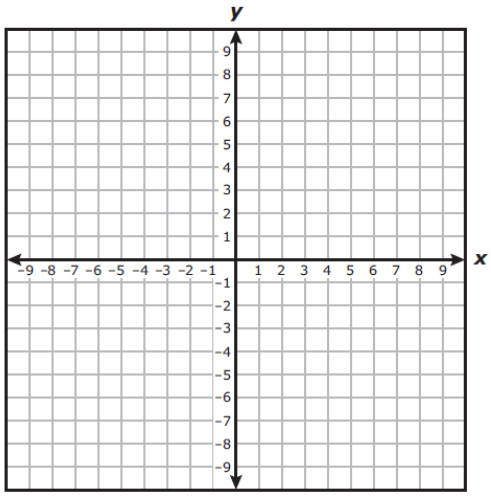
$y \geq \frac{1}{3}x + 4$?

A (-6, 1)

B (-1, 6)

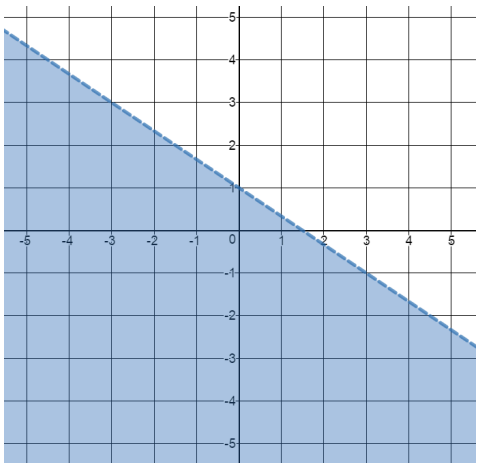
C (6, -1)

D (1, -6)



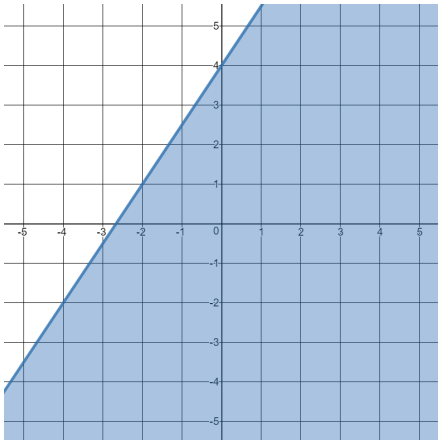
Writing Linear Inequalities

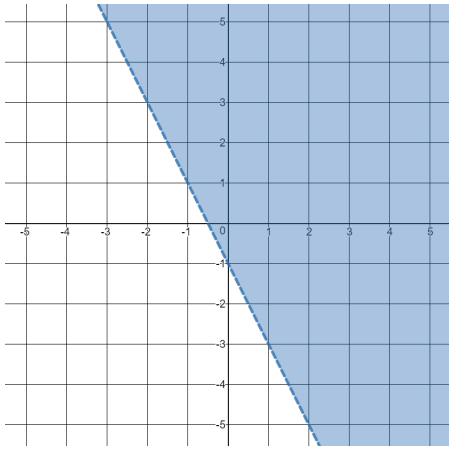
Write an inequality that represents the graph.



Notice	Wonder

Write an inequality that represents each graph.





Baseball fans can buy tickets for seats in the lower deck or upper deck of the stadium. Tickets for the lower deck cost \$42 each. Ticket prices for the upper deck are 75% of the cost of tickets for the lower deck. Which inequality represents all possible combinations of x, the number of tickets for the lower deck, and y, the number of tickets for the upper deck, that someone can buy for no more than \$800?

A $42x + 56y \leq 800$

B $42x + 31.5y \leq 800$

C $42x + 56y > 800$

D $42x + 31.5y > 800$

$$6x - 9y > 12$$

Which of the following inequalities is equivalent to the inequality above?

A) $x - y > 2$
B) $2x - 3y > 4$
C) $3x - 2y > 4$
D) $3y - 2x > 2$