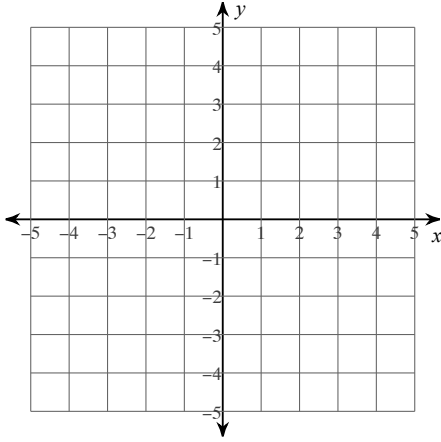


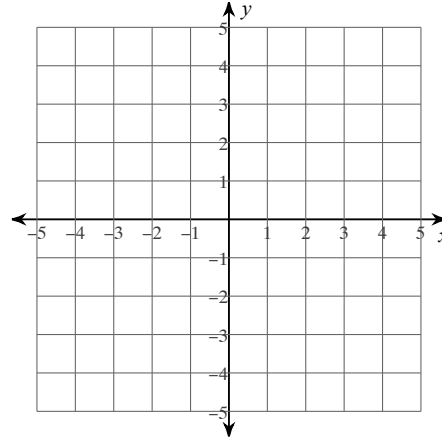
Linear Inequalities and Systems of Inequalities Study Guide

Solve each system by graphing.

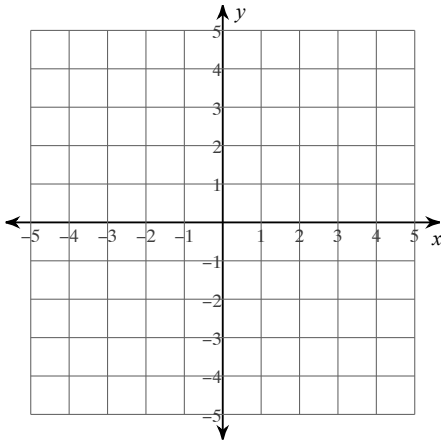
1) $6y - 24 = 3x$
 $y - 1 = -x$



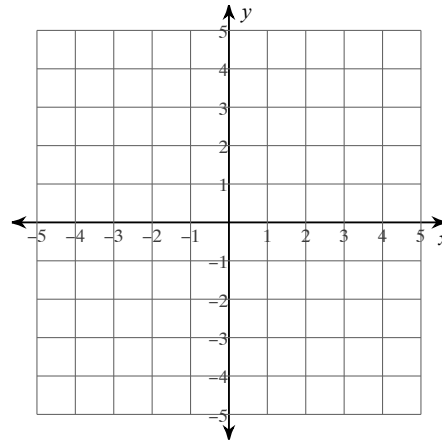
2) $-y = 4 - 2x$
 $4 - 2x = -y$



3) $-4 - 2x = -2y$
 $-y - 2 = -5x$

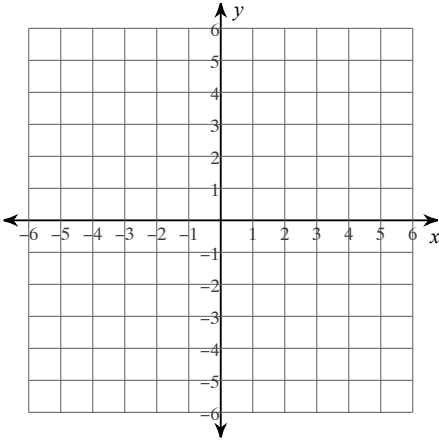


4) $3 - 3y - x = 0$
 $9 = -3y - x$

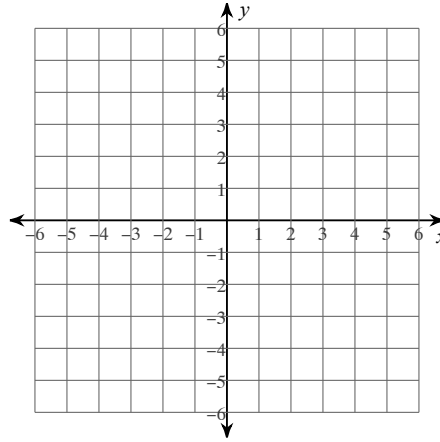


Sketch the graph of each linear inequality.

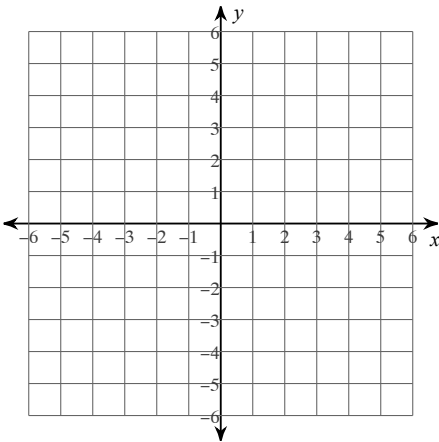
5) $x < 5$



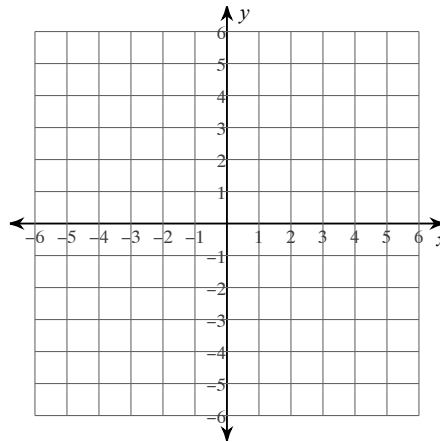
6) $y \geq -x + 2$



7) $y \leq -6x - 3$

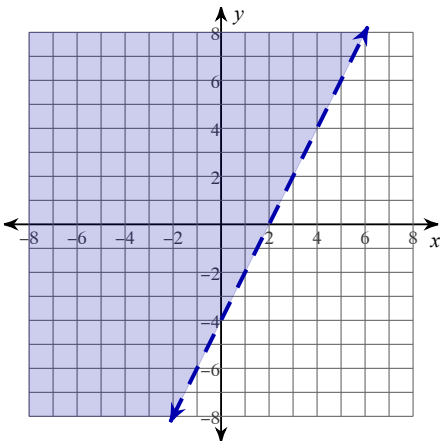


8) $y < -3$

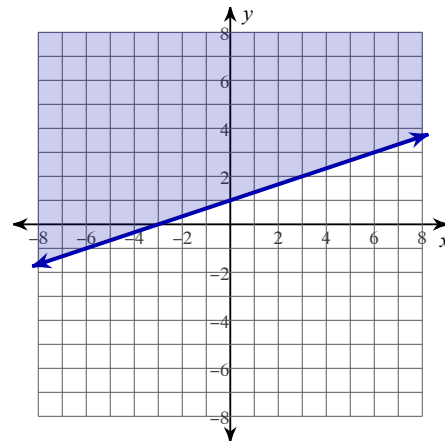


Write the linear inequality for the given graph.

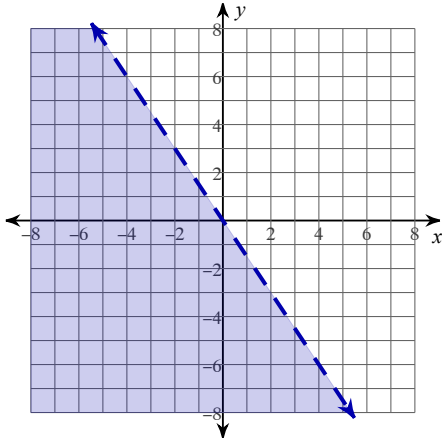
9)



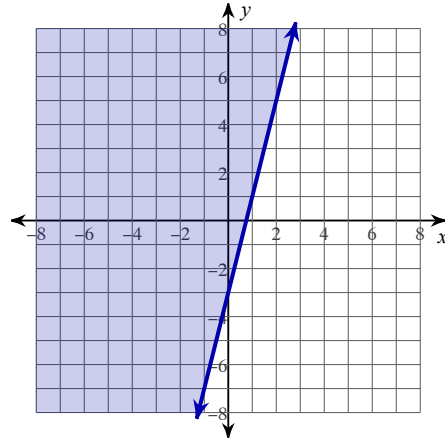
10)



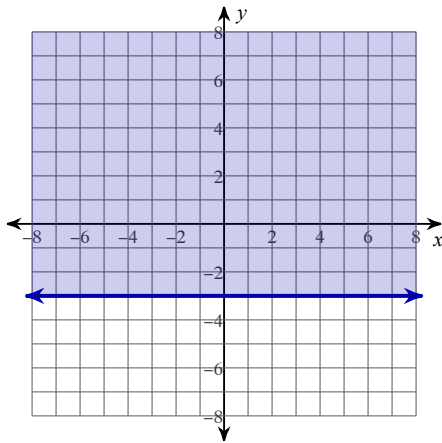
11)



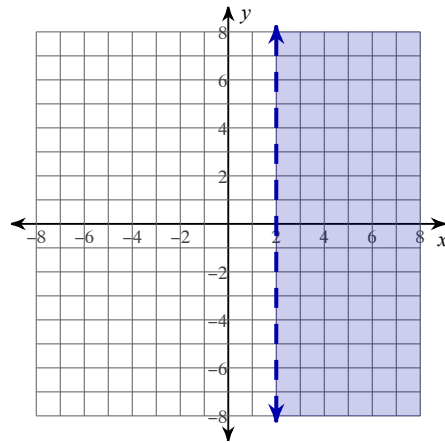
12)



13)



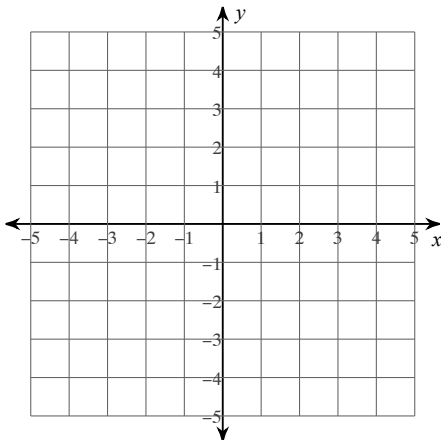
14)



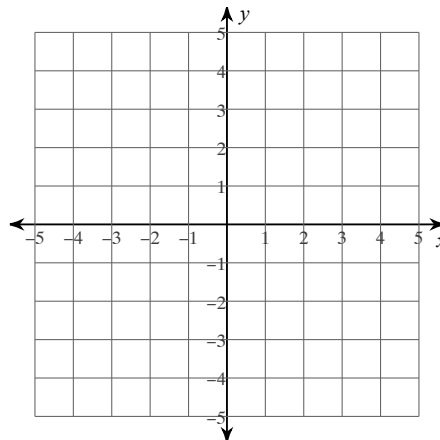
Sketch the solution to each system of inequalities.

15) $y > \frac{1}{2}x + 2$

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

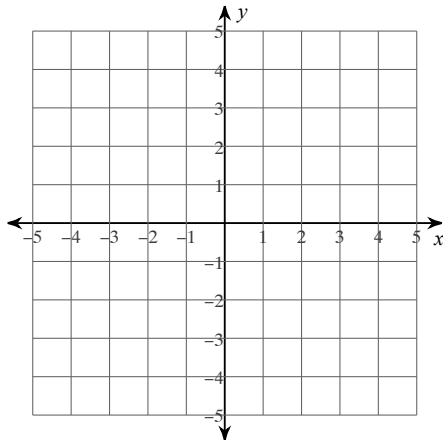


16) $y \leq -x + 2$
 $y < 2x - 1$



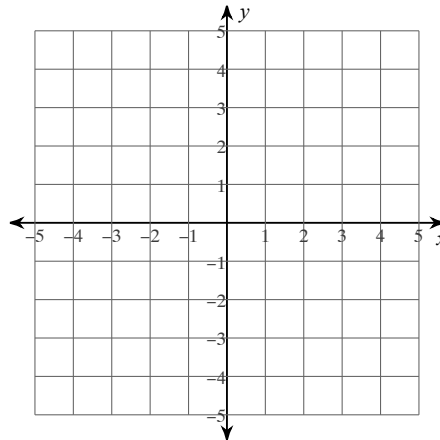
$$17) y > -\frac{2}{3}x + 1$$

$$y \geq \frac{1}{3}x - 2$$



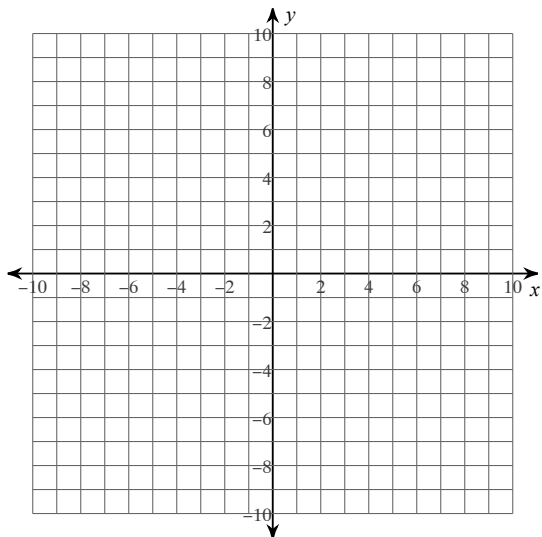
$$18) y > x - 2$$

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



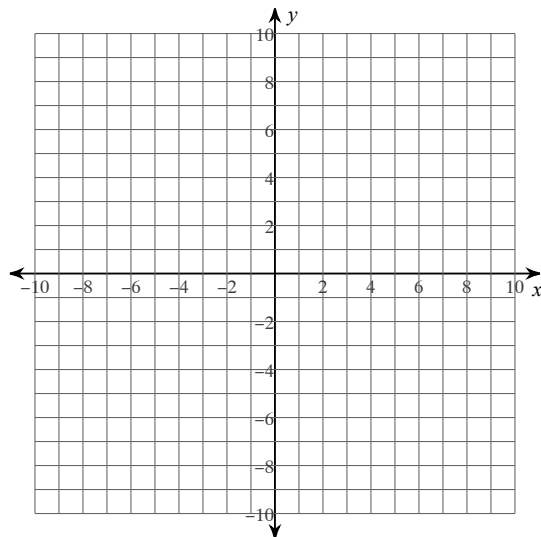
$$19) x - 5y \leq -30$$

$$8x - 5y \geq 5$$



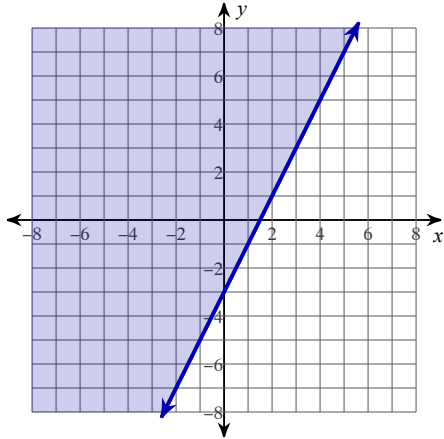
$$20) x - 2y \leq 6$$

$$7x - 2y \leq -6$$



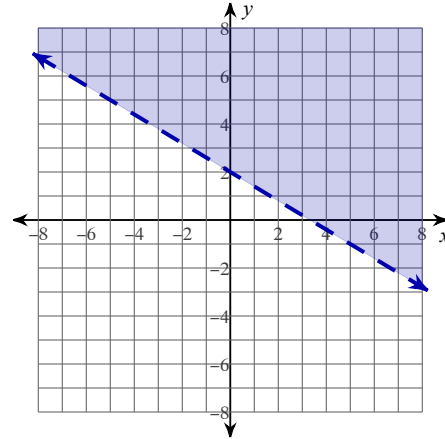
Using the graphs to answer the questions.

21) Which of the following is a solution to the given inequality?



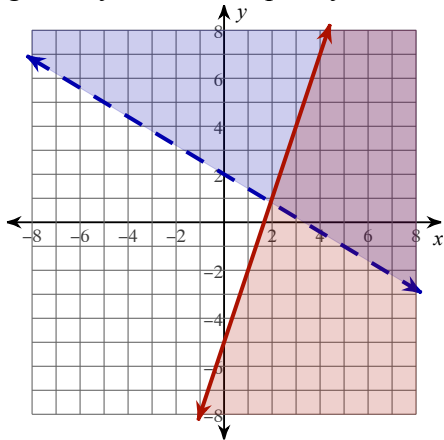
- A) (6,2) B) (-6,2)
C) (2,6) D) (-2,6)

22) Which of the following is a solution to the given inequality?



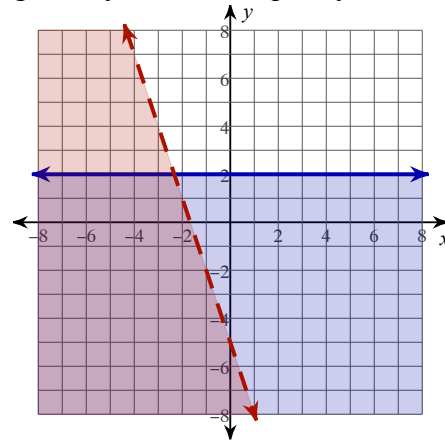
- A) (3,5) B) (3,-5)
C) (2,-2) D) (-2,2)

23) Which of the following is a solution to the given system of inequality?



- A) (3,-4) B) (3,4)
C) (-3,4) D) (-2,-4)

24) Which of the following is a solution to the given system of inequality?



- A) (0,5) B) (5,0)
C) (0,-5) D) (-5,0)