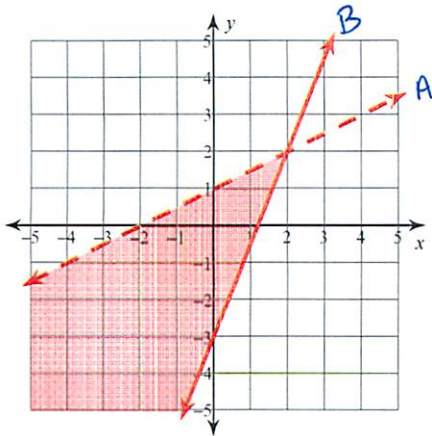


Practice Answers 4.3

Sketch the solution to each system of inequalities.

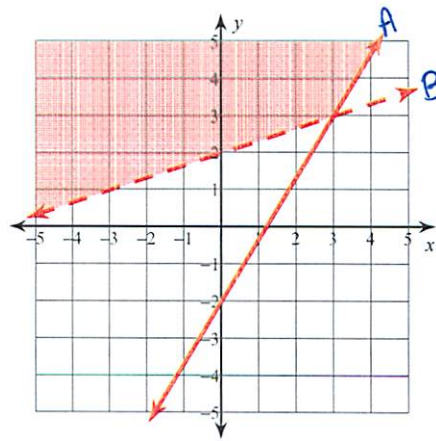
1) $y < \frac{1}{2}x + 1$ A

$y \geq \frac{5}{2}x - 3$ B



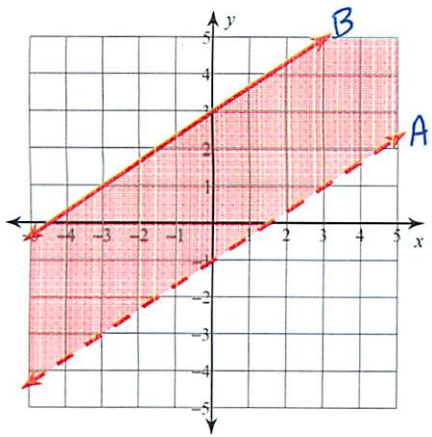
2) $y \geq \frac{5}{3}x - 2$ A

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



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

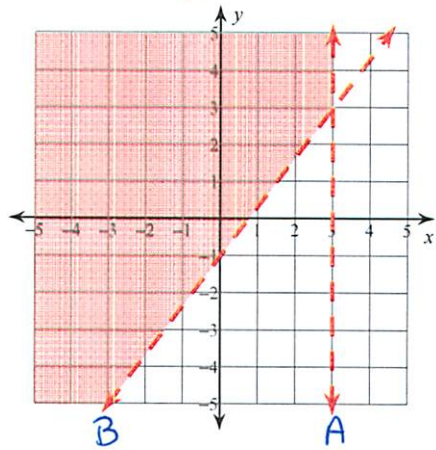
$y \leq \frac{2}{3}x + 3$ B



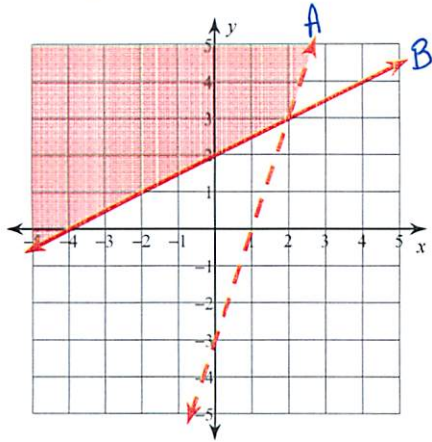
4) $x < 3$ A

$y > \frac{4}{3}x - 1$ B

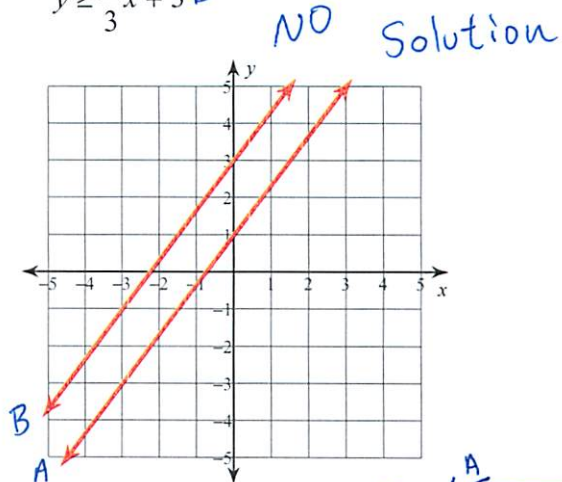
vertical line



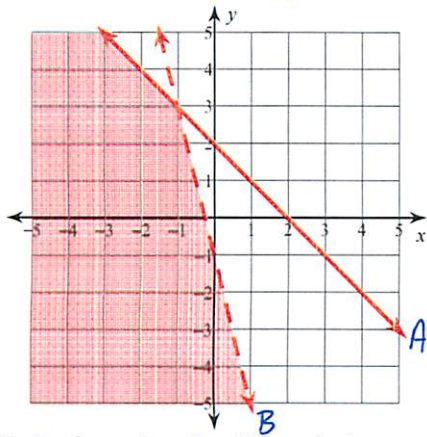
5) $y > 3x - 3$ A
 $y \geq \frac{1}{2}x + 2$ B



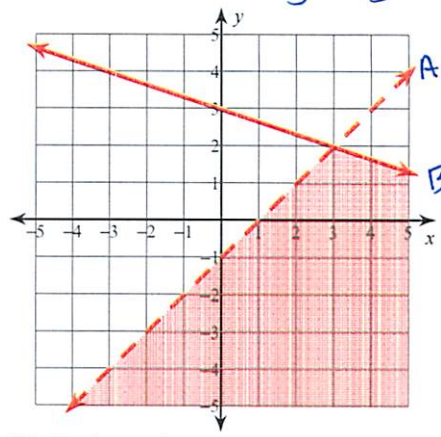
6) $y \leq \frac{4}{3}x + 1$ A
 $y \geq \frac{4}{3}x + 3$ B



7) $x + y \leq 2 \Rightarrow y \leq -x + 2$ A
 $4x + y < -1 \Rightarrow y < -4x - 1$ B



8) $x - y > 1 \Rightarrow y < x - 1$ A
 $x + 3y \leq 9 \Rightarrow y \leq -\frac{1}{3}x + 3$ B

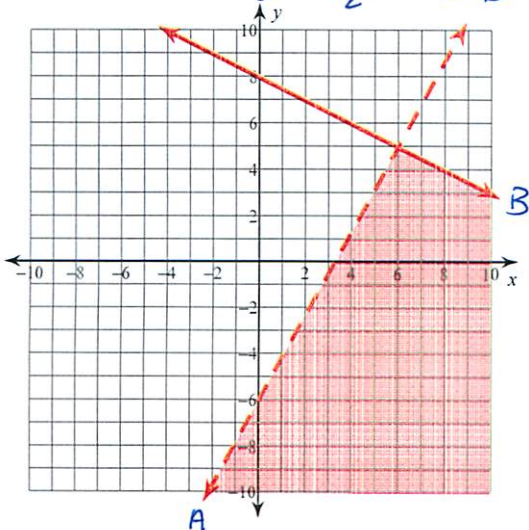


Don't Forget To
 SWITCH INEQUALITY
 WHEN DIVIDING BY
 A NEGATIVE!

9) Is the point (0, -1) a solution to the system of inequalities in problem #7? ~~Yes~~ **No!**
 10) Is the point (3, 2) a solution to the system of inequalities in problem #8? ~~Yes~~ **No!**

Sketch the solution to each system of inequalities.

11) $11x - 6y > 36 \Rightarrow y < \frac{11}{6}x - 6$ A
 $x + 2y \leq 16 \Rightarrow y \leq -\frac{1}{2}x + 8$ B



12) $x - 3y < -9 \Rightarrow y > \frac{1}{3}x + 3$ A
 $2x + 3y \leq 18 \Rightarrow y \leq -\frac{2}{3}x + 6$ B

