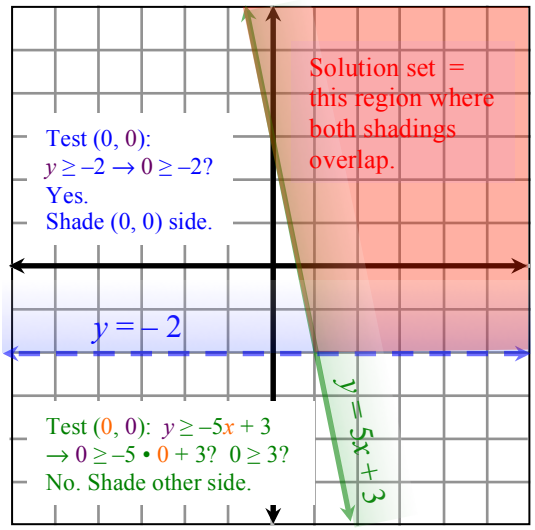
3.7 Systems of Linear Inequalities

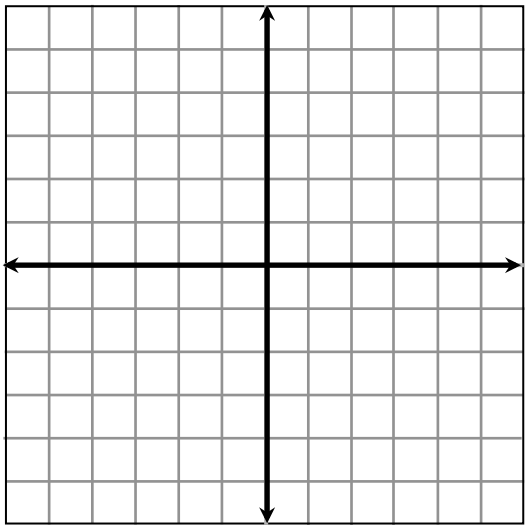
Solutions

Sketch the solution set to each system of inequalities.

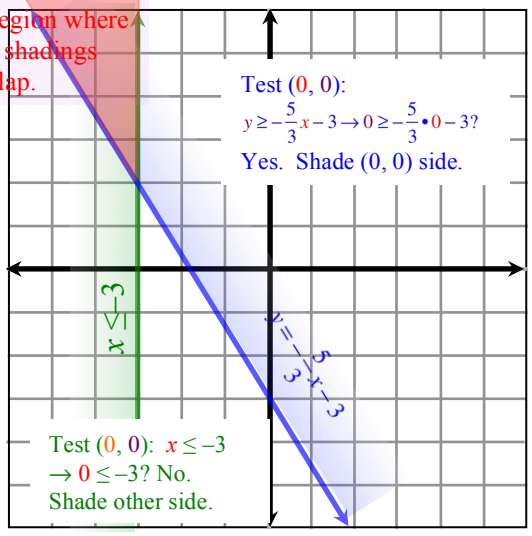
1. $\begin{cases} y \geq -5x + 3 \\ y > -2 \end{cases}$



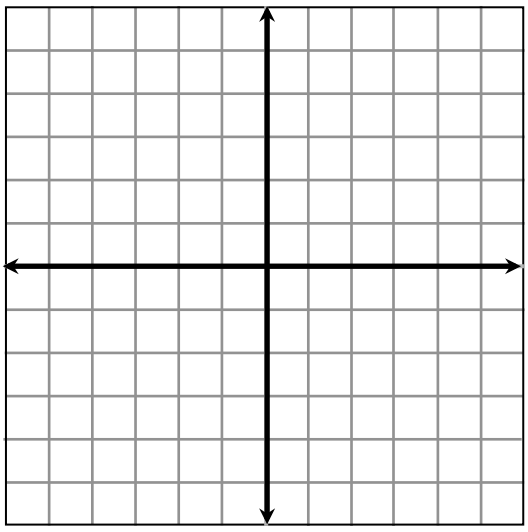
2. $\begin{cases} y \leq -x + 1 \\ y < 3 \end{cases}$

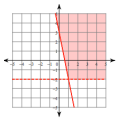
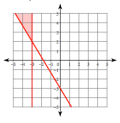


3. $\begin{cases} x \leq -3 \\ y \geq -\frac{5}{3}x - 3 \end{cases}$



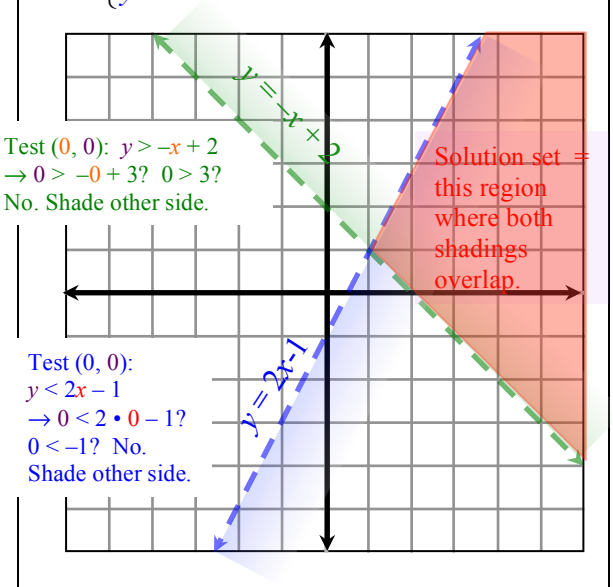
4. $\begin{cases} x \geq -1 \\ y \leq \frac{1}{2}x + 2 \end{cases}$



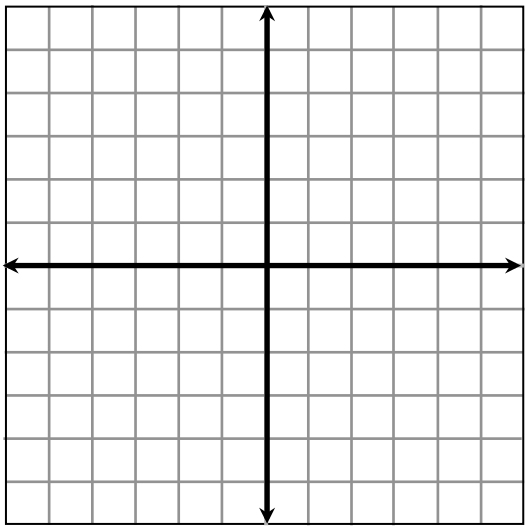
Answers: **1.**  ; **3.** 

Sketch the solution set to each system of inequalities.

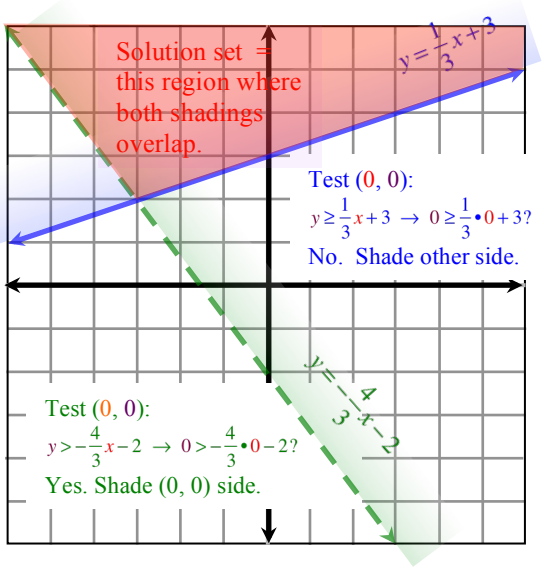
5. $\begin{cases} y > -x + 2 \\ y < 2x - 1 \end{cases}$



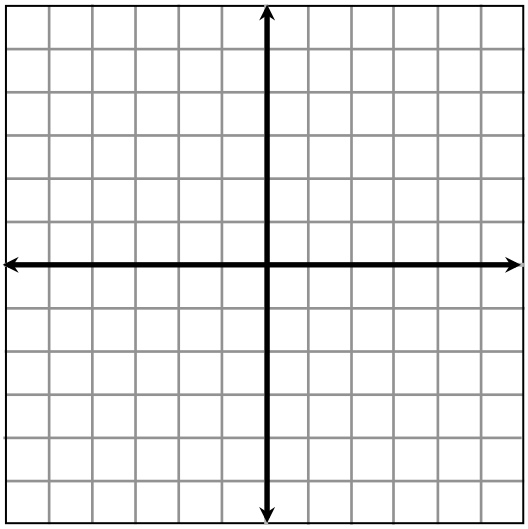
6. $\begin{cases} y \geq -x + 2 \\ y \geq -4x - 1 \end{cases}$

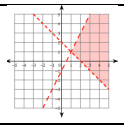
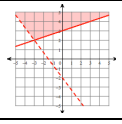


7. $\begin{cases} y > -\frac{4}{3}x - 2 \\ y \geq \frac{1}{3}x + 3 \end{cases}$



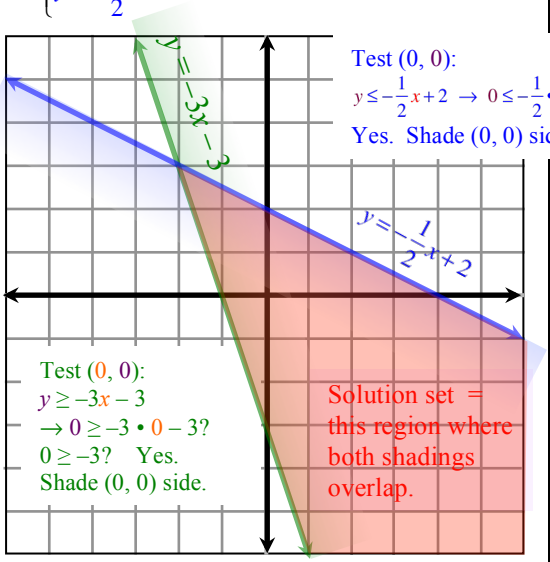
8. $\begin{cases} y \geq -\frac{2}{3}x + 1 \\ y < \frac{1}{2}x - 3 \end{cases}$



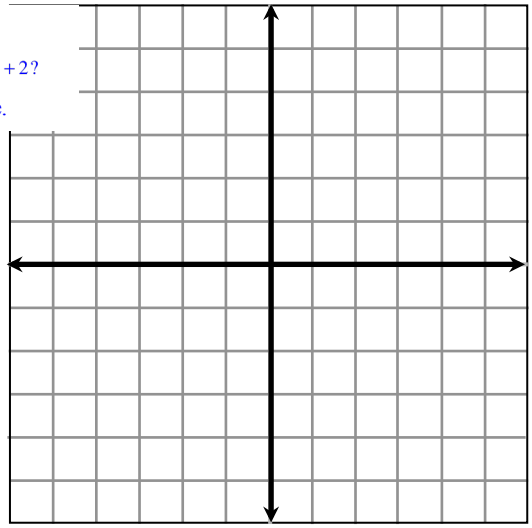
Answers: **5.**  ; **7.** 

Sketch the solution set to each system of inequalities.

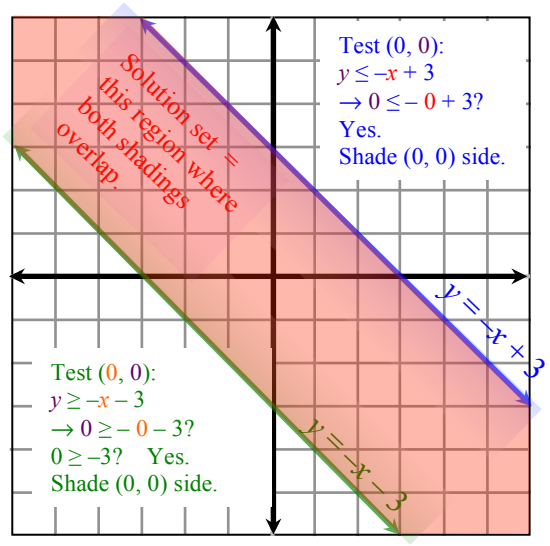
9. $\begin{cases} y \geq -3x - 3 \\ y \leq -\frac{1}{2}x + 2 \end{cases}$



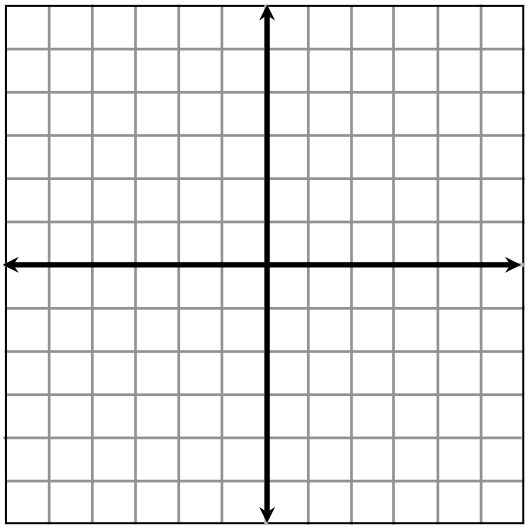
10. $\begin{cases} y \leq -2x + 1 \\ y < -\frac{1}{4}x \end{cases}$

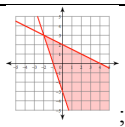


11. $\begin{cases} y \geq -x - 3 \\ y \leq -x + 3 \end{cases}$



12. $\begin{cases} y \leq 2x + 3 \\ y \geq 2x - 2 \end{cases}$



Answers: **9.**  ; **11.**