

Solve each linear inequality and graph:

Random Seed: 800576

1. $3x + y \geq -13$

2. $-2x + 14y \leq -14$

3. $2x + 4y < -8$

4. $-5x + 2y > 12$

5. $-5x - y \geq 2$

6. $7x + 9y \leq 9$

7.
$$\begin{cases} 7x - 5y < 5 \\ 3x - y > 1 \end{cases}$$

8.
$$\begin{cases} -3x - 2y > 14 \\ -x - y > 12 \end{cases}$$

9.
$$\begin{cases} -8x + y \geq -5 \\ -2x + 4y > 8 \end{cases}$$

10.
$$\begin{cases} 4x + 3y \leq -3 \\ 6x + y > 4 \end{cases}$$

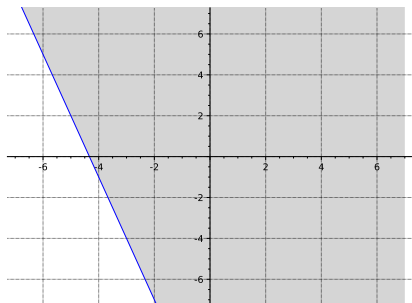
11.
$$\begin{cases} 6x + 4y < -4 \\ -x - 2y < 6 \end{cases}$$

12.
$$\begin{cases} 7x - y < -3 \\ 3x - 6y \leq -6 \end{cases}$$

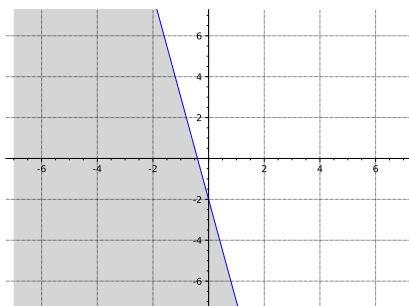
Solutions:

(Note: $>=$ and $<=$ are equivalent to \geq and \leq , respectively)

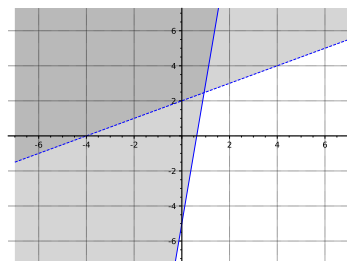
1. $y >= -3x - 13$



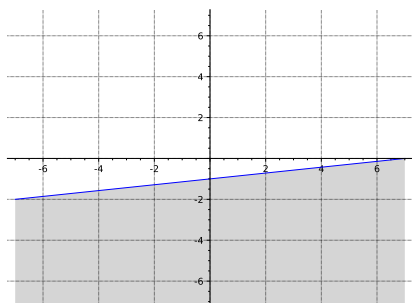
5. $y <= -5x - 2$



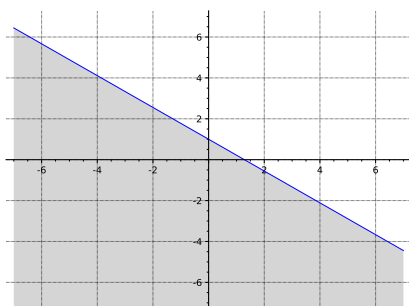
9. $\begin{cases} y >= 8x - 5 \\ y > \frac{1}{2}x + 2 \end{cases}$



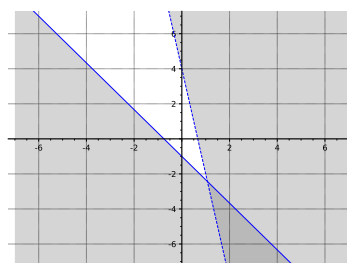
2. $y <= \frac{1}{7}x - 1$



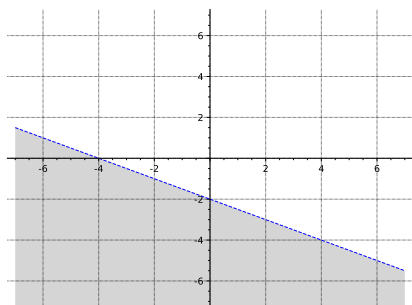
6. $y <= -\frac{7}{9}x + 1$



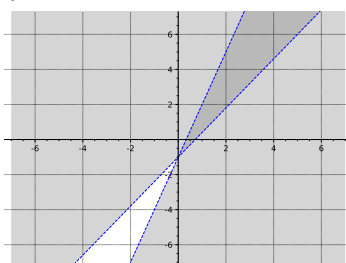
10. $\begin{cases} y <= -\frac{4}{3}x - 1 \\ y > -6x + 4 \end{cases}$



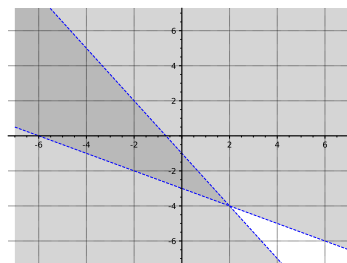
3. $y < -\frac{1}{2}x - 2$



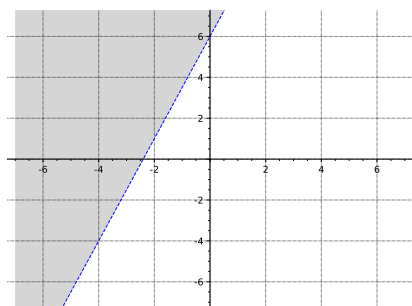
7. $\begin{cases} y > \frac{7}{5}x - 1 \\ y < 3x - 1 \end{cases}$



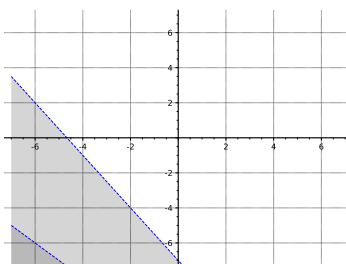
11. $\begin{cases} y < -\frac{3}{2}x - 1 \\ y > -\frac{1}{2}x - 3 \end{cases}$



4. $y > \frac{5}{2}x + 6$



8. $\begin{cases} y < -\frac{3}{2}x - 7 \\ y < -x - 12 \end{cases}$



12. $\begin{cases} y > 7x + 3 \\ y >= \frac{1}{2}x + 1 \end{cases}$

