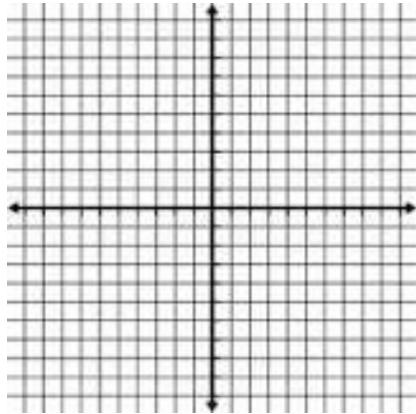
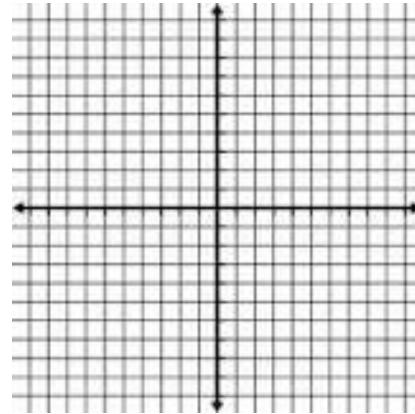


Solve the system by graphing.

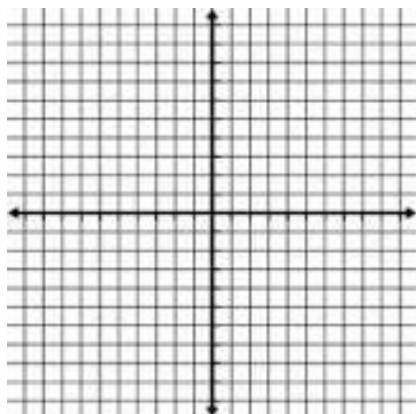
$$\begin{aligned}1. \quad -7x - 4 - y &= 0 \\-x + y &= 4\end{aligned}$$



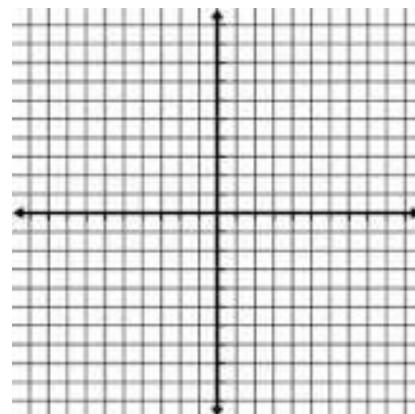
$$\begin{aligned}2. \quad 1 &= -5x + y \\-3y + 3x &= 9\end{aligned}$$



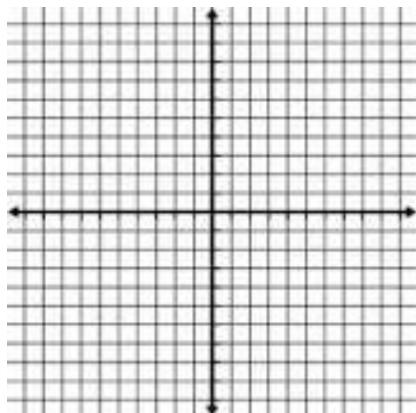
$$\begin{aligned}3. \quad y &= \frac{1}{3}|x + 5| - 5 \\y + 2x &= -1\end{aligned}$$



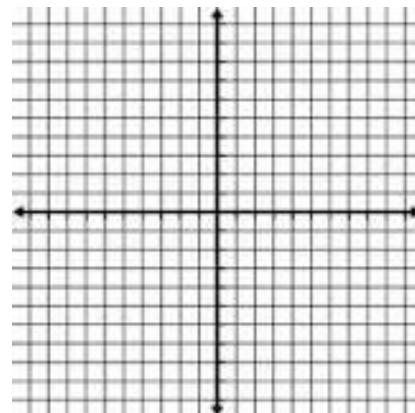
$$\begin{aligned}4. \quad y &= -(x - 3)^2 + 8 \\(x + 3)^2 + (y - 4)^2 &= 16\end{aligned}$$



$$\begin{aligned}5. \quad y &= -2(x - 2)^2 + 4 \\y &= 2^x\end{aligned}$$

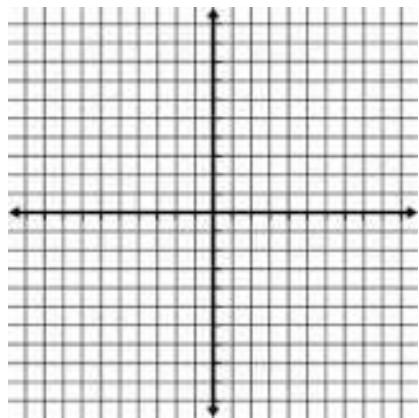


$$\begin{aligned}6. \quad y &= -(x - 4)^2 + 6 \\y &= -3^x\end{aligned}$$

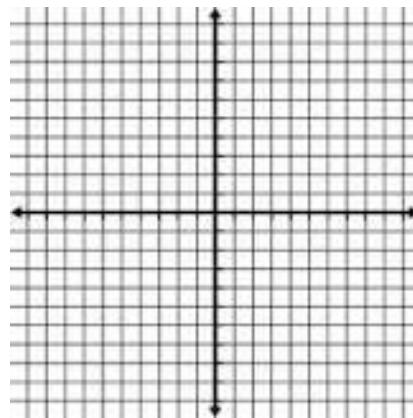


Sketch the solution to each system of inequalities.

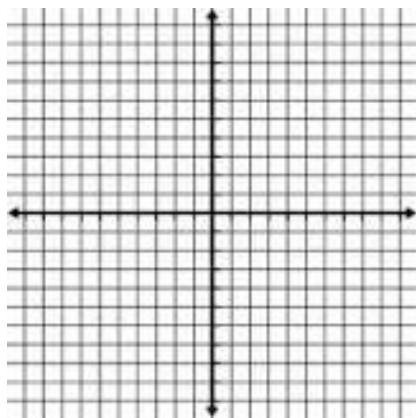
6. $y \leq 3$
 $y > |x + 4|$



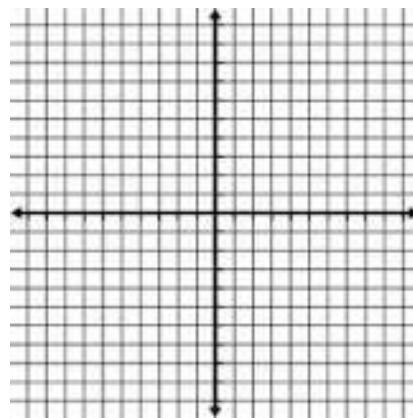
7. $y \geq 2|x + 1|$
 $y < x + 1$



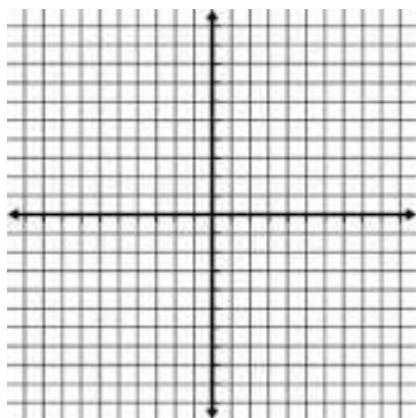
8. $x^2 + y^2 \leq 4$
 $y \geq |x| - 2$



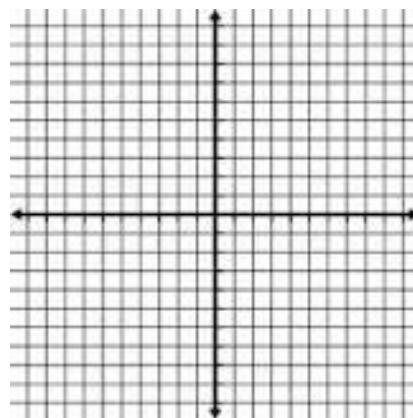
9. $x > -5$
 $y \leq -x^2 - 10x - 16$



10. $(x + 6)^2 + (y + 5)^2 \leq 16$
 $2y - 2x > -14$



11. $2x - y < 3$
 $x - 3y \leq -6$



$$12. \quad 3x + y \geq 2$$

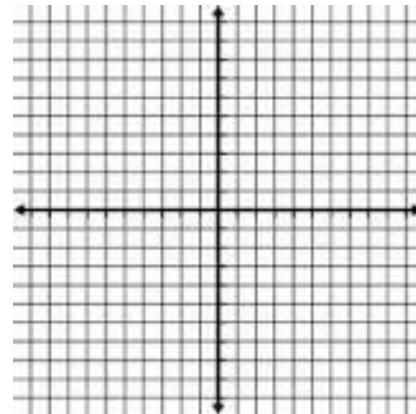
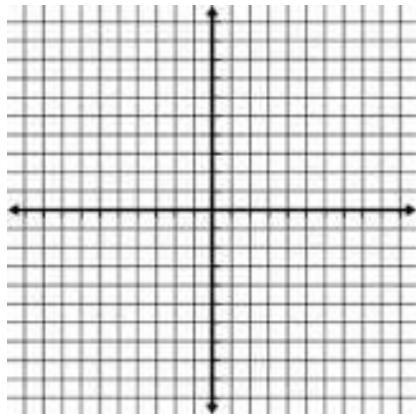
$$2x - y < 3$$

$$13. \quad x + y < 5$$

$$x + y > -5$$

$$x - y < 4$$

$$x - y > -2$$



Solve the following systems.

$$16. \quad \begin{aligned} x - 4y &= 16 \\ -7x + 6y &= -24 \end{aligned}$$

$$17. \quad \begin{aligned} y &= x^2 + 12x + 36 \\ 2y &= -x^2 - 12x - 24 \end{aligned}$$

$$18. \quad \begin{aligned} y &= x^2 - 9x + 18 \\ y &= x - 3 \end{aligned}$$

$$19. \quad \begin{aligned} -2x - 2y &= -8 \\ y &= -4x + 4 \end{aligned}$$

$$20. \quad \begin{aligned} 8x - y &= -14 \\ 5x + 7y &= -24 \end{aligned}$$

$$21. \quad \begin{aligned} 2x - 4y &= 10 \\ -3x + 6y &= 12 \end{aligned}$$

$$\begin{aligned}22. \quad -4x - 4y &= 16 \\7x + 7y &= -28\end{aligned}$$

$$\begin{aligned}23. \quad y &= -x^2 - 4x + 1 \\y &= 2x^2 + 8x + 1\end{aligned}$$

$$\begin{aligned}24. \quad x^2 + y^2 &= 10 \\y &= -3x + 10\end{aligned}$$

$$\begin{aligned}25. \quad y &= x - 3 \\-2y - 3x &= -4\end{aligned}$$

$$\begin{aligned}26. \quad 6x + y - z &= -16 \\x + 6y + 3z &= 23 \\-x + y + 2z &= 5\end{aligned}$$

$$\begin{aligned}27. \quad 2x - y + 2z &= -21 \\x + 5y - z &= 25 \\-3x + 2y + 4z &= 6\end{aligned}$$