

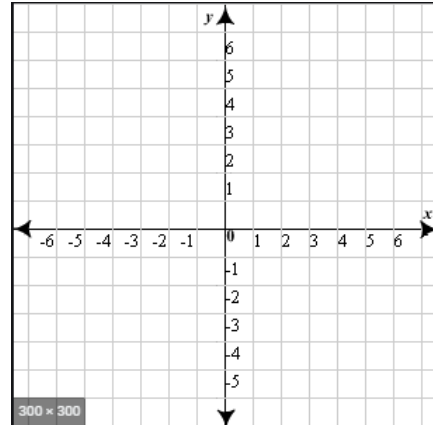
3-3 Practice

Form G

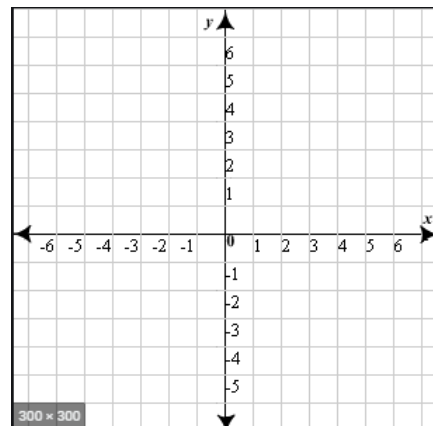
Systems of Inequalities

Solve each system of inequalities by graphing.

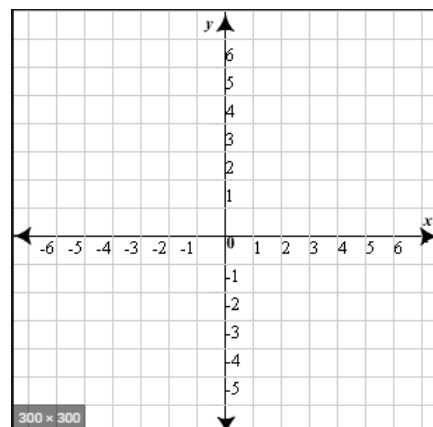
14.
$$\begin{cases} 2x \geq y + 3 \\ x < 3 - 2y \end{cases}$$



15.
$$\begin{cases} 3 < 2x - y \\ x - 3y \leq 4 \end{cases}$$

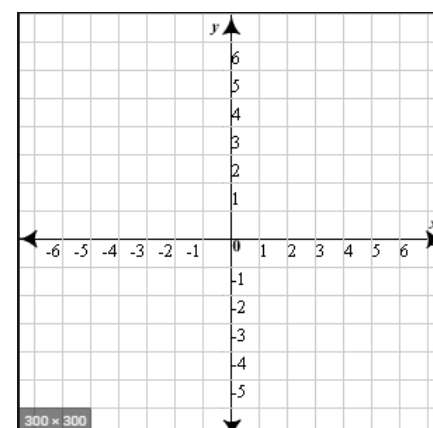


16.
$$\begin{cases} 2x + y > 2 \\ x - y \geq 3 \end{cases}$$

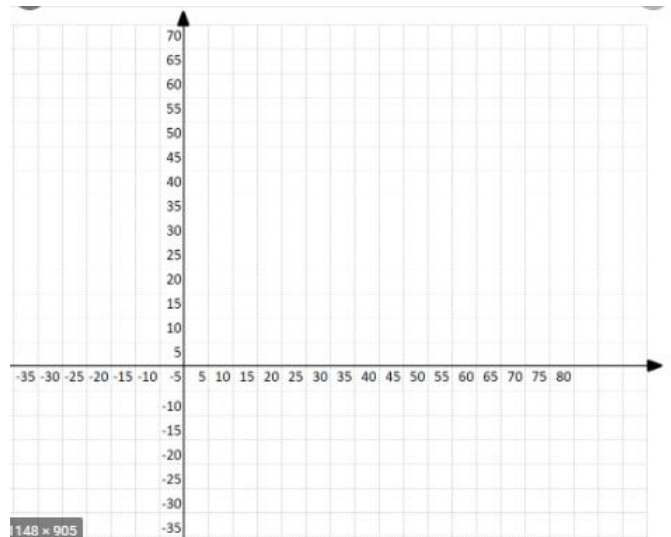


17. Suppose you are buying two kinds of notebooks for school. A spiral notebook costs \$2, and a three-ring notebook costs \$5. You must have at least 6 notebooks. The cost of the notebooks can be no more than \$20.

- Write a system of inequalities to model the situation.
- Graph and solve the system.



18. A camp counselor needs no more than 30 campers to sign up for two mountain hikes. The counselor needs at least 10 campers on the low trail and at least 5 campers on the high trail.
- Write a system of inequalities to model the situation.
 - Graph and solve the system.

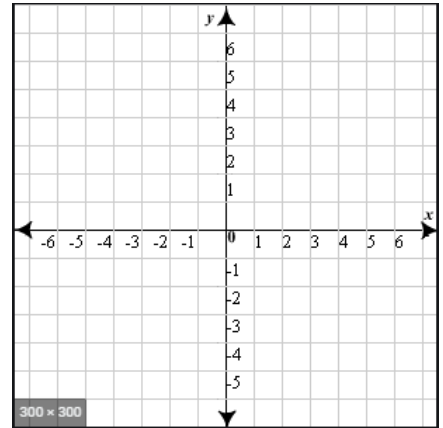
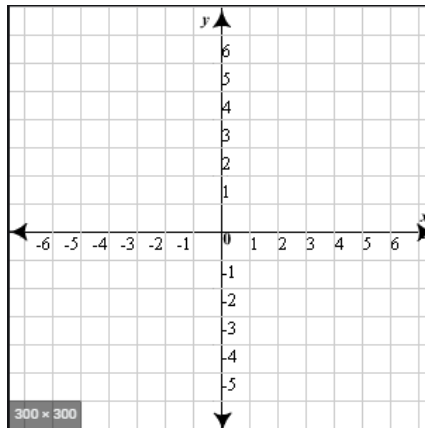
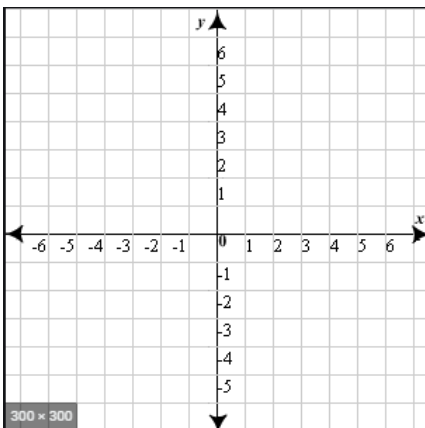


Solve each system of inequalities by graphing.

22.
$$\begin{cases} y \geq -2 \\ y \leq -|x + 3| \end{cases}$$

23.
$$\begin{cases} y < x + 3 \\ y > |x - 1| \end{cases}$$

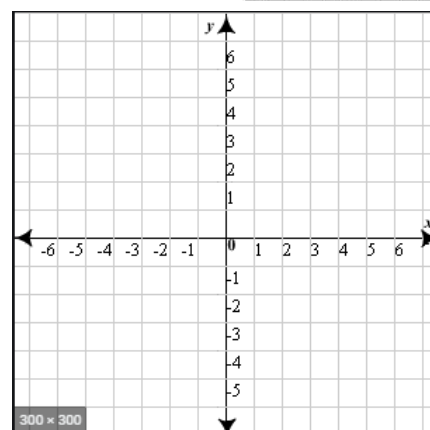
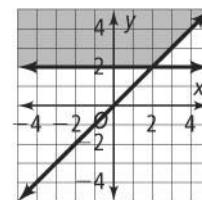
24.
$$\begin{cases} y > x \\ y < |x + 2| \end{cases}$$



25. **Error Analysis** Your homework assignment is to solve the system

$$\begin{cases} y \geq 2 \\ y \geq |x| \end{cases}$$

using a graph. You turn in the graph at the right. What did you do wrong? Draw a correct graph.



26. Open-Ended Write a system of inequalities that has no solution.

27. A doctor needs at least 60 adults for a medical study. He cannot use more than 40 men in the study. Write a system of inequalities to model the situation and solve the system by graphing.

