

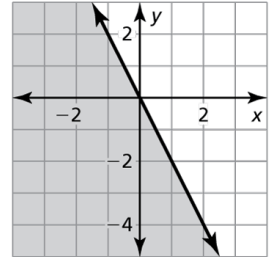
## 5.6 Practice A

In Exercises 1–4, tell whether the ordered pair is a solution of the inequality.

1.  $x - y > 2$ ; (5, 4)
2.  $x + y \leq -3$ ; (-1, -4)
3.  $5x + y \leq 12$ ; (2, 2)
4.  $x - 3y > 6$ ; (3, -1)

In Exercises 5–10, tell whether the ordered pair is a solution of the inequality whose graph is shown.

5. (1, 0)
6. (-1, -1)
7. (0, 0)
8. (-3, 1)
9. (2, -4)
10. (0, 3)

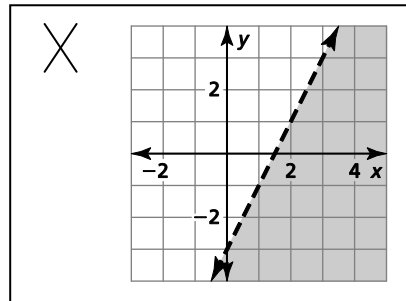


11. You have \$150 to spend on video games. The inequality  $7x + 32y \leq 150$  represents the number  $x$  of used video games and the number  $y$  of new video games that you can purchase. Can you purchase 10 used video games and 3 new video games? Explain.

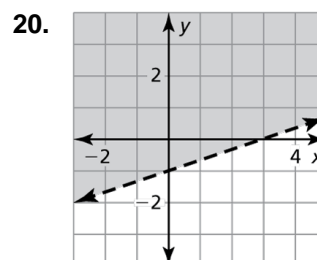
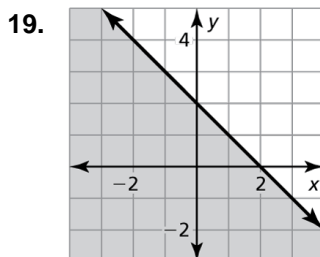
In Exercises 12–17, graph the inequality in a coordinate plane.

12.  $y \geq 2$
13.  $x < -3$
14.  $y < -1$
15.  $y < 2x - 5$
16.  $y \geq -x + 3$
17.  $-3x + y \leq 1$

18. Describe and correct the error in graphing  $y > 2x - 3$ .



In Exercises 19 and 20, write an inequality that represents the graph.



**5.6****Practice B**

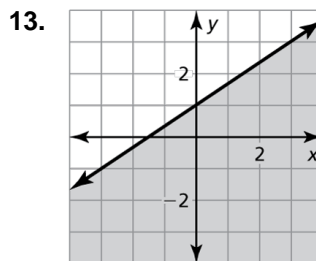
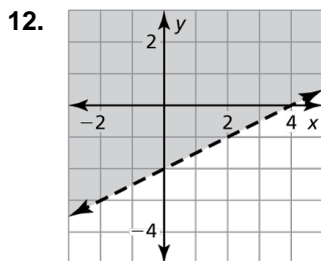
In Exercises 1–4, tell whether the ordered pair is a solution of the inequality.

1.  $5x + 7y \leq 10$ ;  $(-1, 2)$
2.  $4x - y > 2$ ;  $(-2, -2)$
3.  $-3x - 2y \geq 0$ ;  $(3, -3)$
4.  $-8x - y < 4$ ;  $(0, 2)$
5. The inequality  $9x + 5y \geq 60$  represents the number  $x$  of newspapers and the number  $y$  of magazines you must sell to earn enough points to earn a special school lunch. You sell four newspapers and six magazines. Do you receive a special school lunch? Explain.

In Exercises 6–11, graph the inequality in a coordinate plane.

6.  $x \geq 4$
7.  $y < -6$
8.  $x < 0$
9.  $y < 2x + 2$
10.  $-3x + y \leq -2$
11.  $x - 2y \geq 6$

In Exercises 12 and 13, write an inequality that represents the graph.



14. Write a linear inequality in two variables that has the following two properties.
  - $(2, -1)$ ,  $(2, 3)$ , and  $(3, 1)$  are not solutions.
  - $(0, -3)$ ,  $(-2, 1)$ , and  $(1, -5)$  are solutions.

In Exercises 15 and 16, write and graph an inequality whose graph is described by the given information.

15. The points  $(4, 10)$  and  $(-2, -8)$  lie on the boundary line. The points  $(1, -3)$  and  $(-1, -7)$  are *not* solutions of the inequality.
16. The points  $(-3, 7)$  and  $(9, -5)$  lie on the boundary line. The points  $(-4, 2)$  and  $(6, -5)$  are solutions of the inequality.