Name _____ Date _____

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.

12.

13.
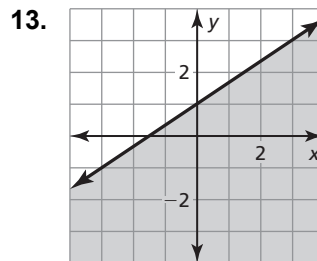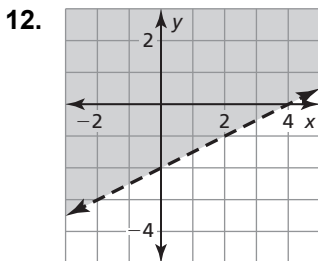
14. Write a linear inequality in two variables that has the following two properties.

- $(2, -1)$, $(2, 3)$, 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.