6-5 Exercises

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GUIDED PRACTICE

1. **Vocabulary** Can a *solution of a linear inequality* lie on a dashed boundary line? Explain.

SEE EXAMPLE 1 p. 414

Tell whether the ordered pair is a solution of the given inequality.

2. $(0, 3); y \leq -x + 3$
3. $(2, 0); y > -2x - 2$
4. $(-2, 1); y < 2x + 4$

SEE EXAMPLE 2 p. 415

Graph the solutions of each linear inequality.

5. $y \leq -x$
6. $y > 3x + 1$
7. $-y < -x + 4$
8. $-y \geq x + 1$

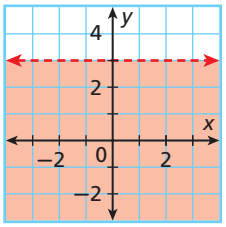
SEE EXAMPLE 3 p. 416

9. **Multi-Step** Jack is making punch with orange juice and pineapple juice. He can make at most 16 cups of punch.
   a. Write an inequality to describe the situation.
   b. Graph the solutions.
   c. Give two possible combinations of cups of orange juice and pineapple juice that Jack can use in his punch.

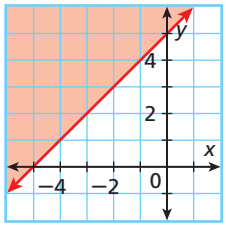
SEE EXAMPLE 4 p. 417

Write an inequality to represent each graph.

10.



11.



PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
12–14	1
15–18	2
19	3
20–21	4

Extra Practice

Skills Practice p. S15
Application Practice p. S33

Tell whether the ordered pair is a solution of the given inequality.

12. $(2, 3); y \geq 2x + 3$
13. $(1, -1); y < 3x - 3$
14. $(0, 7); y > 4x + 7$

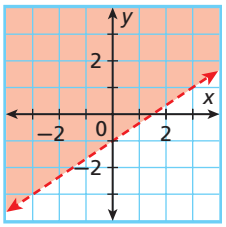
Graph the solutions of each linear inequality.

15. $y > -2x + 6$
16. $-y \geq 2x$
17. $x + y \leq 2$
18. $x - y \geq 0$

19. **Multi-Step** Beverly is serving hamburgers and hot dogs at her cookout. Hamburger meat costs \$3 per pound, and hot dogs cost \$2 per pound. She wants to spend no more than \$30.
   a. Write an inequality to describe the situation.
   b. Graph the solutions.
   c. Give two possible combinations of pounds of hamburger and hot dogs that Beverly can buy.

Write an inequality to represent each graph.

20.



21.