Name _____ Hour _____ Date _____

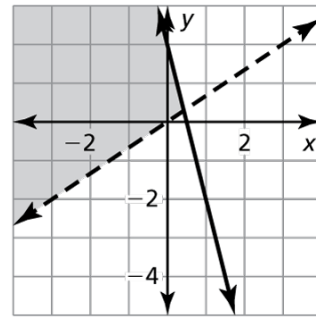# 5.7 Systems of Linear Inequalities ws

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

1. $(-2, 1)$

2. $(-3, -2)$

3. $(0, 2)$

4. $(-1, -4)$

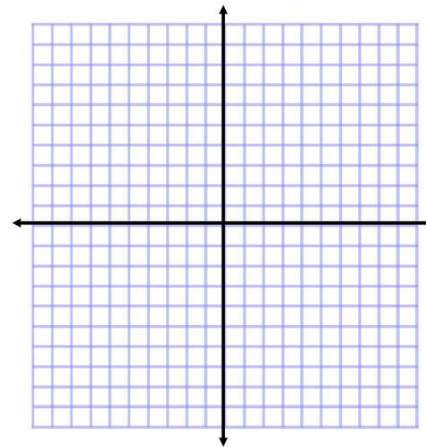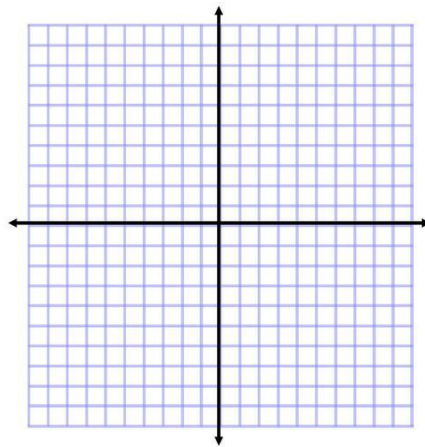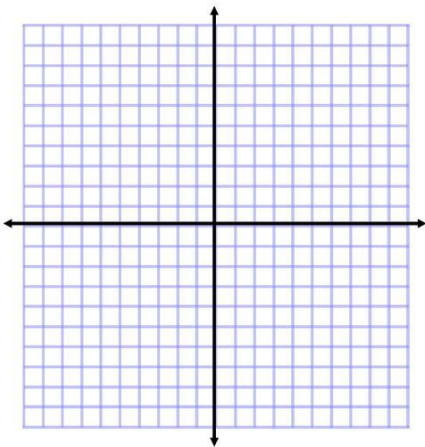**In Exercises 5 and 6, tell whether the ordered pair is a solution of the system of linear inequalities.**

5. $(2, -1)$; $y \geq 3$
$\qquad y < x + 1$

6. $(7, -4)$; $y < 0$
$\qquad y < x - 3$

In Exercises 7–12, graph the system of linear inequalities.

7. $y > 2$
$\quad x < -3$

8. $y \geq 1$
$\quad y < 4$

9. $y \geq -2x$
$\quad y > 1$

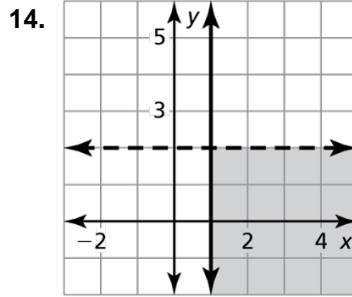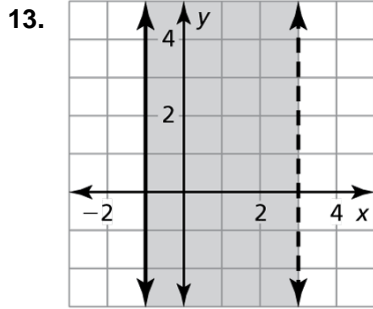**10.** $y \leq x + 2$
$\quad y > x - 2$

11. $y < 2x$
$\quad y < x + 1$
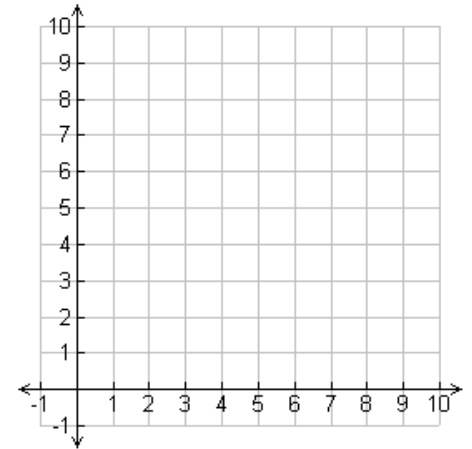
12. $3x + y \leq 0$
$\quad -2x + y > -1$
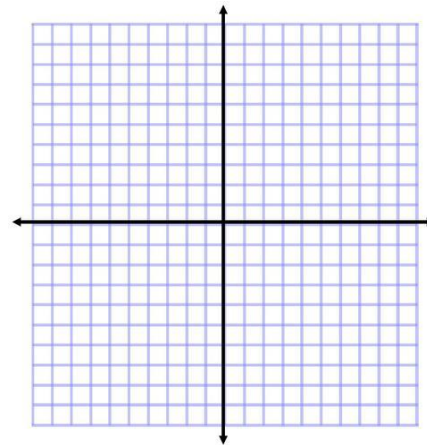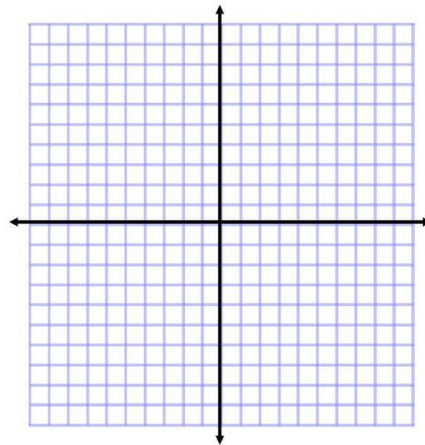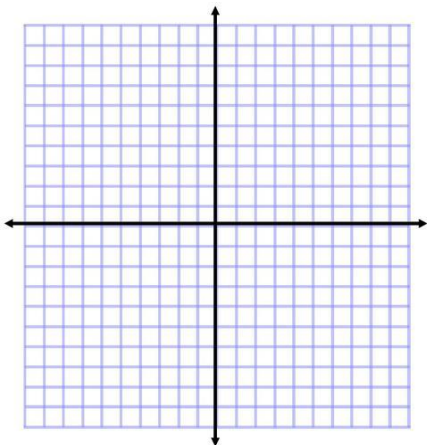
In Exercises 13 - 15, write a system of linear inequalities represented by the graph.

13.

14.

15.
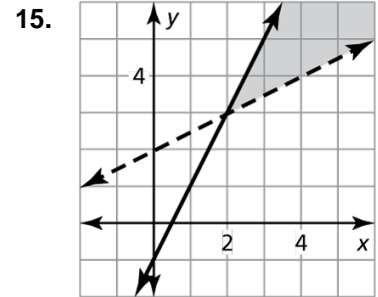
16. You can spend at most $18 on beads. A bag containing red beads costs $2 per bag. A bag containing blue beads costs $3 per bag. You need more bags of blue beads than bags of red beads.

a. Write and graph a system of linear inequalities that represents the situation.

b. Identify and interpret a solution of the system.

c. Use the graph to determine whether you can buy 3 bags of red beads and 5 bags of blue beads.