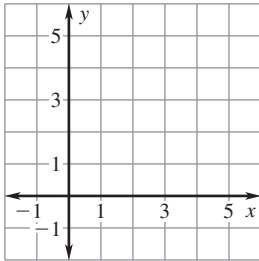Name _____   Date _____

Practice C

For use with the lesson "Graph Linear Inequalities in Two Variables"

Tell whether the ordered pair is a solution of the inequality.
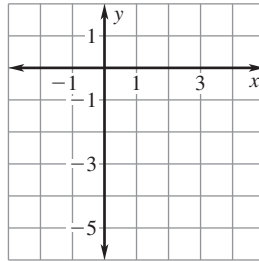
1. $5x - 8y < 2$; $(-6, -2)$ **2.** $6x + 5y \geq -3$; $(-8, 5)$ **3.** $-7x - 2y < 8$; $(-3, 4)$
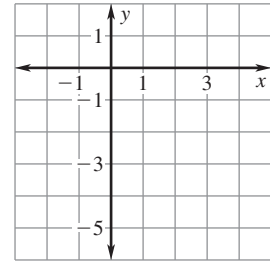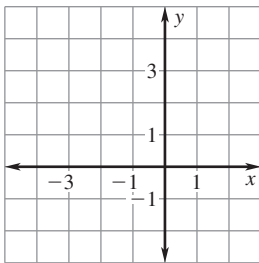
Graph the inequality.

4. $3x + 4y \geq 12$

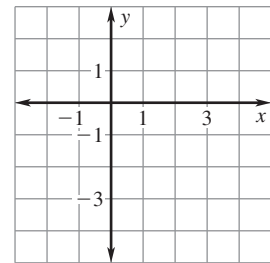**5.** $5x - 3y < 15$
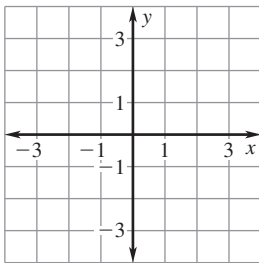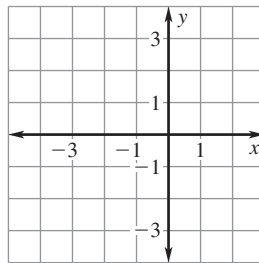
6. $2y - 4x > -10$

7. $2(y - 3) \geq 3x$
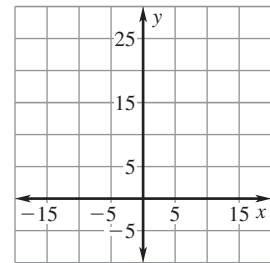
8. $2x - 5 > 3y + 1$
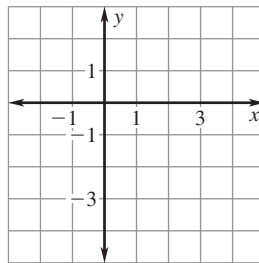
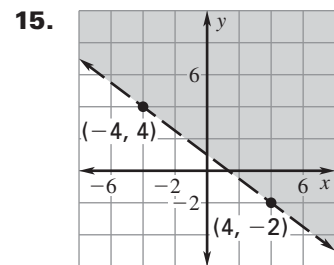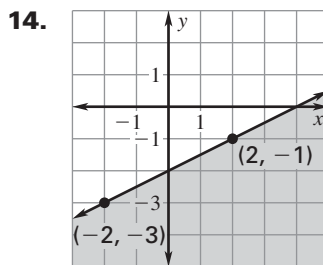**9.** $4y + 3 > 3(x - 2)$

10. $y > -2$

11. $0 \leq x + 4$

12. $y - 5 \geq 14$

Write an inequality of the graph shown.

13.

(0, 4)

(3, −2)
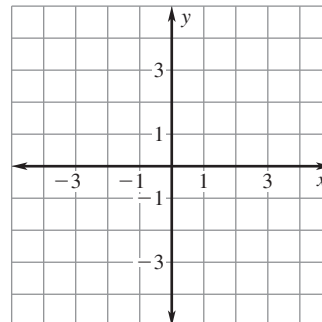
14.

(2, −1)

(−2, −3)

15.

(−4, 4)

(4, −2)
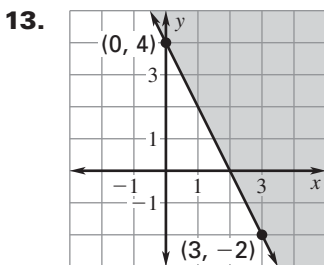
LESSON 5.7 | **Practice C** *continued*
For use with the lesson "Graph Linear Inequalities in Two Variables"

Write and graph an inequality whose graph is described by the given information.

16. The points $(0, -2)$ and $(4, -14)$ lie on the boundary line. The points $(-4, 1)$ and $(1, -7)$ are solutions of the inequality.

17. The points $(-2, -13)$ and $(3, 12)$ lie on the boundary line. The points $(-2, -15)$ and $(4, 10)$ are *not* solutions of the inequality.
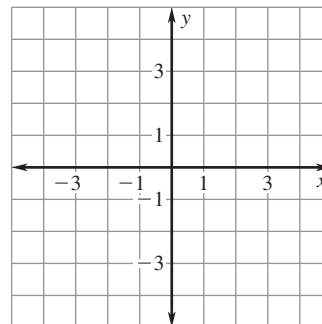
18. Computer Club The computer club at your school has 75 members. Freshmen, sophomores, juniors, and seniors may participate in this club. There are twice as many juniors as sophomores. Let x represent the number of sophomores. Let y represent the number of freshmen.

a. Write and graph an inequality that describes the different numbers of freshmen, sophomores, and juniors in the club.

b. Give three possible combinations of freshmen, sophomores, and juniors that could be in the club.
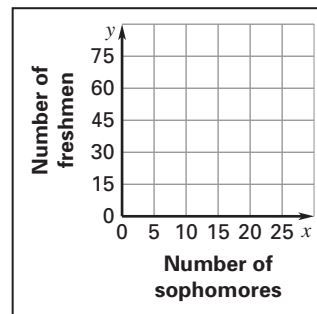
19. Breakfast You and your friends go to a bagel shop for breakfast. Together, you have $20 to spend. Each bagel costs $.65 and each glass of juice costs $.95. Let x represent the number of bagels you can buy. Let y represent the number of glasses of juice you can buy. Write and graph an inequality that describes the different numbers of bagels and glasses of juice that your group can afford. Can your group afford 8 bagels and 16 glasses of juice?