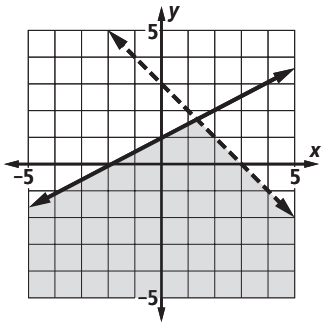
Name

5-8B Lesson Master

Questions on SPUR Objectives
See Student Edition pages 367–371 for objectives.

PROPERTIES Objective E

1. A system of inequalities is graphed at the right. Does the given point satisfy the system?

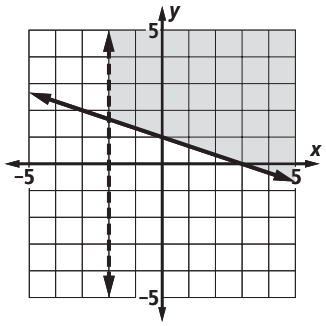


   a. (0, 0) _____

   b. (–4, 2) _____

   c. (3, 0) _____

2. A system of inequalities is graphed at the right. Does the given point satisfy the system?



   a. (–2, 4) _____

   b. (0, 0) _____

   c. (–2, 1) _____

   d. (2, 2) _____

   e. (0, 3) _____

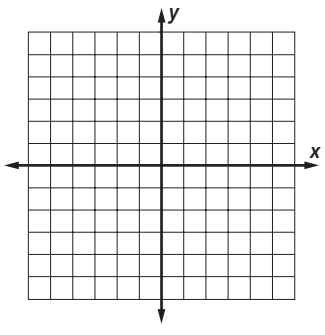
   f. (3, 0) _____

REPRESENTATIONS Objective K

In 3 and 4, a system of linear inequalities is given. a. Graph the feasible region. b. Find the coordinates of each vertex of the region.

3. $\begin{cases} y > 2x \\ y < -x - 3 \end{cases}$

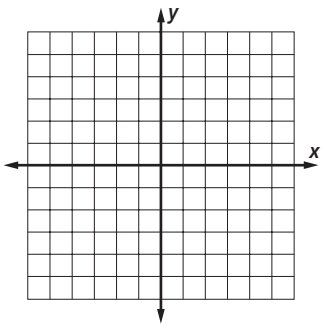
   a.



   b. _____

4. $\begin{cases} x \geq 0 \\ y \leq 3 \\ y < \frac{1}{2}x + 2 \end{cases}$

   a.



   b. _____

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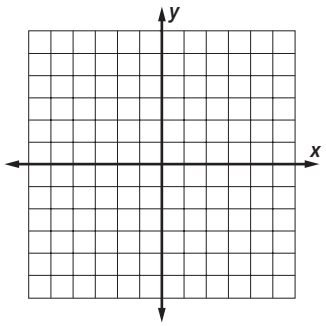
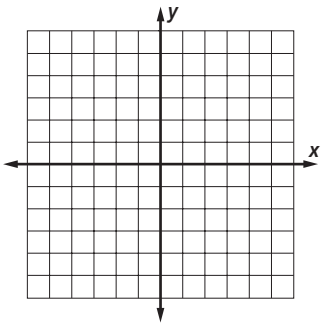
In 5 and 6, graph the solution set below each question.

5. $\begin{cases} y < x + 1 \\ x + 2y \geq -3 \end{cases}$

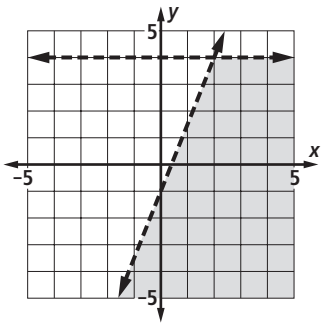
6. $\begin{cases} x \geq -2 \\ y \geq -3 \\ x + y \leq 1 \\ x - 3y \leq 12 \end{cases}$



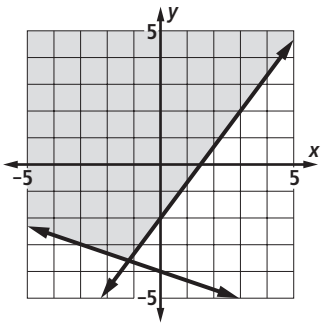


In 7 and 8, write a system of inequalities that describes the shaded region.

7.



8.



9. A sack of Nutri-Plus parakeet seed contains 8 lb of white millet and 2 lb of red millet. A sack of Ultra-Grow parakeet seed contains 6 lb of white millet and 4 lb of red millet. Seed and Feed currently has 9000 lb of white millet and 4000 lb of red millet in stock.

   a. Let n be the number of sacks of Nutri-Plus and u be the number of sacks of Ultra-Grow that Seed and Feed can package. Give a system of inequalities satisfied by n and u.

   b. At the right, graph the feasible set for the system in Part a and label the vertices.