5-7B Lesson Master

Questions on SPUR Objectives

VOCABULARY

1. Fill in the Blanks When a line is drawn in a plane, the
   line separates the plane into two distinct regions called
   ___________________________________. The line itself is called
   ___________________________________.

REPRESENTATIONS  Objective J

2. Matching The inequality $ax + by \leq c$ is graphed at the right.
   Match each point identified on the graph with the sentence
   it satisfies.

   $P$ _______________  $A \ ax + by > c$
   $Q$ _______________  $B \ ax + by = c$
   $R$ _______________  $C \ ax + by < c$

In 3–6, write an inequality that describes the shaded region of the graph.

3. 

4. 

5. 

6.
In 7–10, graph the inequality on the coordinate plane.

7. \( x < -2.5 \) 

8. \( y \geq 7 \) 

9. \( y \geq -2x - 3 \) 

10. \( -2x - 3y > 9 \) 

In 11 and 12, the I.M. Sweet bakery sells chocolate chip cookies and plain oatmeal cookies for $1.75 a dozen. Connie has $7 to spend on cookies.

11. At the right, graph the possible combinations of chocolate chip cookies and plain oatmeal cookies she can afford.

12. Determine whether she can buy each combination.
   a. 3 dozen plain and 3 dozen chocolate chip
   b. 1 dozen plain and 3 dozen chocolate chip
   c. 4 dozen plain and 2 dozen chocolate chip