6-9B Lesson Master

REPRESENTATIONS Objective 1

In 1–6, graph all points (x, y) that satisfy the inequality.

1. \( x \geq -2 \)

2. \( x - y < 0 \)

3. \( 7x + 3y > -21 \)

4. \( y \leq \frac{2}{3}x - 1 \)

5. \( y > -4 \)

6. \( y \geq 5x - 1 \)

7. The Steinman family can spend up to $40 at a fall festival. They can buy tickets for amusement rides for $0.50 each. The admission fee to the festival is $2 per person.

a. Write an inequality that gives the number of ride tickets \( t \) and admission fees \( f \) that the Steinmans can pay for with $40.

b. Give one example of a combination of ride tickets and admission fees that satisfies the inequality.
8. A restaurant owner purchases \( b \) pounds of beef and \( c \) pounds of chicken. The meat supplier charges $7.99 per pound for the beef and $2.19 per pound for the chicken. The owner can spend no more that $570 for this meat purchase.

a. Write an inequality that gives the number of pounds of beef \( b \) and pounds of chicken \( c \) that the owner can buy.

b. Give one example of a combination of beef and chicken that satisfies the inequality.

c. Graph the number of possible combinations of pounds of beef and chicken.

9. A crafter buys $7 worth of supplies for each candle she makes. She buys $10 worth of supplies for each wreath she makes.

a. Write an inequality that gives the possible number of candles \( c \) and wreaths \( w \) the crafter can make with no more than $140.

b. Give one example of a combination of candles and wreaths that satisfies the inequality.

10. A professional photographer charges $5 for each small photo sheet \( s \). A bigger photo sheet \( b \) costs $15 each. The photographer also charges a $10 sitting fee. Loren can spend no more than $60 at the photographer’s. Graph the set of points \((b, s)\) that satisfies these conditions.

In 11 and 12, refer to the graph at the right.

11. Find an equation of the boundary line.

12. Determine the inequality that is graphed.