LESSON 8-3

Writing Two-Step Inequalities

Practice and Problem Solving: A/B

Write an inequality for each description.

1. Ten times a number increased by four is no more than twenty-five.

   _____

2. Thirty subtracted from four times a number is greater than the opposite of ten.

   _____

3. One fourth of the opposite of the difference of five and a number is less than twenty.

   _____

Write a description of each inequality.

4. $-5a + 3 > 1$

   _____

5. $27 - 2b \leq -6$

   _____

6. $\frac{1}{2}(c + 1) \geq 5$

   _____

Use the following situation to complete Exercise 7.

7. The school photography club charges $10 for each photo in its annual pet photo contest. The club wants to save $75 of its earnings for a pizza party. The club members also want to have at least $50 left over after the pizza party to pay for other club expenses. Write an expression for:

   a. how much money the club earns by taking *p* pet photos

      _____

   b. the difference between the amount the club earns and the amount for the pizza party

      _____

   c. Now write a two-step inequality for finding the smallest number of photographs that need to be made to pay for the club's pizza party and have at least $50 left over to pay club expenses.

      _____