Chapter Test

4. **Chapter 4**

**Inequalities**

Write the word sentence as an inequality.

1. A number \( k \) plus 19.5 is less than or equal to 40.

2. A number \( q \) multiplied by \( \frac{1}{4} \) is greater than \(-16\).

Tell whether the given value is a solution of the inequality.

3. \( n - 3 \leq 4; \ n = 7 \)

4. \( \frac{3}{7}m < 1; \ m = -7 \)

5. \(-4c \geq 7; \ c = -2\)

6. \(-2.4m > -6.8; \ m = -3\)

Solve the inequality. Graph the solution.

7. \(w + 4 \leq 3\)

8. \(x - 4 > -6\)

9. \(\frac{2}{9} + y \leq \frac{5}{9}\)

10. \(-6z \geq 36\)

11. \(-5.2 \geq \frac{p}{4}\)

12. \(4k - 8 \geq 20\)

13. \(\frac{4}{7} - b \geq -\frac{1}{7}\)

14. \(-0.6 > -0.3(d + 6)\)

15. **GUMBALLS** You have $2.50. Each gumball in a gumball machine costs $0.25. Write and solve an inequality that represents the number of gumballs you can buy.

16. **PARTY** You can spend no more than $100 on a party you are hosting. The cost per guest is $8.

   a. Write and solve an inequality that represents the number of guests you can invite to the party.

   b. What is the greatest number of guests that you can invite to the party? Explain your reasoning.

17. **BASEBALL CARDS** You have $30 to buy baseball cards. Each pack of cards costs $5. Write and solve an inequality that represents the number of packs of baseball cards you can buy and still have at least $10 left.