Equations Practical Problems/Inequalities Study Guide

Directions: Write an equation to represent each situation below. Then, solve your equation.

Your equations must contain a variable. Helpful Hint: Define your variable first!

1. The last football game Shelly went to was extremely cold. She bought 4 cups of hot chocolate and one hand warmer at the concession stand. The hand warmer cost $4. If she spent a total of $12, how much was each cup of hot chocolate?

2. Susan has six less than three times the number of stuffed animals Amy has. If Susan has nine stuffed animals, how many stuffed animals does Amy have?

3. Four hundred twenty-three students went on a field trip. Eight buses were filled and seven students traveled in cars. If each bus held the same number of students, how many students were in each bus?

4. Victor had $95 dollars to spend. The toy store down the street had a huge sale. Victor bought several board games for $10 each. If he had $35 left over, many board games did he buy?
Inequalities

Directions: Write an inequality to represent the given situation.
1. A number is no less than ten.
2. Seven is greater than a number.
3. A number is at least negative four.
4. A number is less than or equal to six.
5. Five is less than a number.
6. A number is no more than 100.
7. A number is at least 60.
8. A number is at most nine.

Directions: Solve the following inequalities. Show all of your work.
9. $y - 4 > -6$
10. $a + 5 \geq 12$
11. $6d \leq 30$
12. $-8b < 24$
13. $\frac{x}{3} \leq -10$
14. $x - (-6) > 9$
15. $\frac{x}{-6} > -7$
16. $-3c \geq 33$
17. $y + (-12) \leq -15$
23. Graph your solution to question 9.

24. Graph your solution to question 10.

25. Graph: $x \leq 32$.
   Give 3 possible solutions.

26. Graph $y < -10$.
   Give 3 possible solutions.