LESSON 2-4

Creating and Solving Inequalities Name_____

Practice and Problem Solving: C

Write an inequality for the situation and solve.

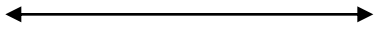
1. Miguel is buying 10 blankets for the animal shelter. If shipping each blanket costs $1.50 and Miguel has $75 to spend, what is the greatest amount he can spend for each blanket?	2. One car rental company charges $30 per day plus $0.25 per mile driven. A second company charges $40 per day plus $0.10 per mile driven. How many miles must you drive for a one-day rental at the second company to be less expensive than the same rental at the first company? Write an inequality to solve.

Solve each inequality and **graph** the solution on a number line.

3. $5x \geq 7x + 4$	4. $-10(9 - 2x) - x \leq 2x - 5$
5. $8\left(1 - \frac{k}{2}\right) > -5k + 17$	6. $\frac{1}{2}a - 7 < \frac{2}{3}a - 9$
7. $2 > 2x - 14 > -14$	8. $4x + 5 \leq -11$ *and* $2x + 5 > x - 5$

9. $-6 \leq 4x - 10 \leq 22$	10 . Write the compound inequality shown by the graph: 

Translate the following into an algebraic expression, solve, and graph the solution

11.Twice the difference of 10 and x is at least 14.	 11. _____
12.Twice the sum of x and 8 is at most -36.	 12. _____
13.Four more than the product of 3 and x is less than 40.	 13. _____

14. A blank CD can hold 70 minutes of music. So far you have burned 25 minutes of music onto the CD. You estimate that each song lasts 4 minutes.

What is the largest number of additional songs that you can burn onto the CD?

14._____