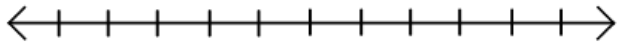
Name _____ Date _____ Period _____

Write and Solve Inequalities

1. **The maximum weight allowed in an elevator is 1,500 pounds. The average weight per adult is 150 pounds and the average weight per child is 40 pounds. Suppose 10 children are in the elevator.**

   a. How many adults can get in? Write an inequality for the allowed weight in terms number of adults A. Solve to find the answer and show <u>all</u> steps.

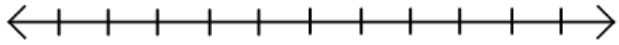
   b. Explain your answer in words. Then, graph the solution on a number line.



2. **12 times a mystery number x, subtracted from 32, is greater than 8.**

   a. What is the mystery number? Write an inequality to represent the situation. Solve to find all the possible solutions for mystery number x and show <u>all</u> steps.

   b. Explain your answer in words. Then, graph the solution on a number line.



3. **World Connections phone company charges $50 per month plus 10 cents per minute for international calls. Andrea's monthly budget limits her to spending less than $100 for international calls.**

   a. How many minutes of international calls can she make? Write an inequality for the cost in terms number of minutes m. Solve to find the number of minutes m and show <u>all</u> steps.

   b. Explain your answer in words. Then, graph the solution on a number line.