**Assignment: Solving Linear Inequalities**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_

**Solve and graph each solution using a number line. Show Work!**

1. $9\left(2x-5\right)<-27$ 2. $1-8x\leq 3x-10$ 3. $36x+18>30x-12$

4. $6x+4\geq 34$ 5. $5(3x-3)\leq 60$ 6. $4x+7>5x+16-2x$

7. $9\left(2x-5\right)-3<7x-4$ 8. $11\left(x-1\right)-3\left(x+2\right)\geq -9$

**Define the variables. Write and solve a linear inequality.**

9. For each of the last 3 months, Olga saved $75, $96 and $84. Which is the minimum amount she should save next month in order to save an average of $90 for these 4 months?

10. To set up a wireless network for internet access at home, you must buy a network router for $75. The fee for DSL service is $15 per month. If you have only $300 to spend on the setup and service, for how many months can you get service?

11. Joe rented a truck to move some furniture. The rental charge is $200 per day plus $0.10 per mile. He wants to spend no more than $300, not including tax. What is the maximum number of miles that he can drive the truck?