Name: _____ Date: _____ **Unit 3 Class Work**

Solving One-Step Inequalities Class Work

🕊 **You will be able to…** solve, graph, and check your solutions to one-step inequalities
model and resolve problems using one-step inequalities

★ The rules for solving inequalities are just like solving equations, with the exception of one additional rule… When multiplying/dividing by a negative number you must _____ _____.

☆Let's write and solve an inequality to figure out each situation in order to make sense of this…
When checking your solutions to these problems, make sure that the left and right sides of the symbol are EXACTLY the same. ☺

Assume you earn $11 per hour babysitting. You want to make at least $199 this week. How many hours will you have to babysit for?	Marissa would like her average test score to be at least 83. If she is going to take three tests in total, how many total points should she earn from these tests? (Remember, average = total points / # of tests)
Kyle and Ayla are saving money for a vacation, and they need to save at least $1500. If Kyle agrees to put exactly $900 of his savings towards the vacation, how much money does Ayla have to save?	Assume you have a budget of $200 to spend on holiday gifts. If you already spent $85 on gifts for your family, how much money can you still spend?

☙ Mixed Practice Solving One-Step Inequalities

Solve each inequality. Then graph your solution on a number line. State at least two possibilities for the value of the variable.

1. $x \div -3 > 10$

2. $6x < -48$

3. $\frac{1}{2} + p \leq 3\frac{3}{4}$

4. $h - 8.4 > 10$

5. $b/9 \geq -2$

6. $r - 2 \leq -8$

7. $-4w > -100$

8. $k + 10.5 \leq 18.75$

9. $s/-2 < -4$

10. $14 > 20.3 + x$

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Resolve each issue using an inequality to support your answer. Then state at least two possibilities for the final solution.

- Define a variable.

- Write the relationship.

- Write an inequality.

- Solve & check.

11. A sports team has a goal of collecting at least 120 jackets to donate to the poor. If they have already collected 68 jackets, how many more do they need to reach their goal?

12. A horse rescue foundation is selling calendars to raise money to care for the horses. Their goal is to raise at least $15,000. If each calendar costs $15.50, how many calendars must the foundation sell?

13. On freerice.com, your goal is to donate a minimum of 1000 grains of rice per week. If you donated 240 grains on Monday and 380 grains on Tuesday, how much must you donate throughout the rest of the week?

14. A taxicab charges $1.20 for every mile traveled. If you only have $20.00 on you, how far can you travel? (Assume you do not have to leave a tip, since the fee is so high!)

***Of problems 11, 12, 13, and 14, which would a number line representation for the solution not be applicable for? Why not?

***Anchor:** Create any inequality problem that could be solved using one step! ☺
Then solve, graph, and check!

Homework: p. 143 #23, 26, 39, 47 & 69
p. 149 #1, 9, & 29
p. 151 #1-6, 9, and 10

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Compare & Contrast

How is working with equations similar to working with inequalities?

How are the two processes different?