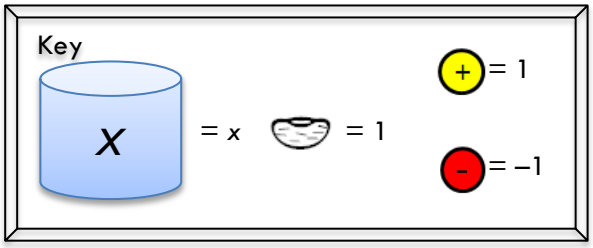
Name _____ Date _____

Solving One-Variable Equations and Inequalities

Explain Independent Practice

Directions: For the problem situation below, write an inequality you can use to solve the problem. Use cups and counters to solve the inequality.



1. John must draw a square whose perimeter is greater 20. What are the possible lengths for the sides of the square?

   a) Write the inequality.

   b) Solve the inequality using cups and counters. Sketch each step.

Model	Symbols

Name_____Date_____

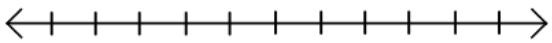
Use the situation below to answer questions 2 – 4.

The perimeter of a square is 24 inches.

2. Write an equation that could be used to solve for x, the length of the side of the square.

3. Solve the equation for x.

4. Identify the location of the solution on the number line below.



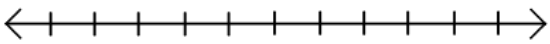
Use the situation below to answer questions 5 – 7.

Jake is treating his friends to lunch at Burger Hut. The burger combo at Burger Hut cost $6. He wants to spend no more than $48.

5. Write an inequality that could be used to solve for x, the number of burger combos Jake can buy.

6. Solve the inequality for x.

7. Represent the solution on the number line below.



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In questions 8 – 11, solve the equation.

8. $4.8x = 15.36$

9. $\frac{x}{9} = -3$

10. $x + 27.5 = 34.3$

11. $5.5x = -47.85$

In questions 12 – 15, solve the inequality.

12. $9x \leq 36.9$

13. $x + 5.7 \geq -7.4$

14. $-11x > 88$

15. $x - \frac{1}{2} < \frac{1}{4}$