

Math 7 Unit 4 Overview: Inequalities

Unit Outcomes	Key Vocabulary
At the end of this unit, your student should be able to:	Terms to deepen the student's understanding
<ul style="list-style-type: none"> ✓ Write inequalities to represent a situation ✓ Solve inequalities ✓ Graph solutions to inequalities on a number line 	<ul style="list-style-type: none"> ✓ Additive Inverse ✓ Algebraic Expression ✓ Algebraic Inequality ✓ Coefficients ✓ Constant ✓ Distribution Property ✓ Expression ✓ Inequality ✓ Integers ✓ Like Terms ✓ Maximum in an Inequality ✓ Minimum in an Inequality ✓ Numeric Expression ✓ Rational Numbers ✓ Solution Set
Key Standards Addressed	Where This Unit Fits
Connections to Common Core/NC Essential Standards	Connections to prior and future learning
<p>7.EE.4 - Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p> <p>7.EE.4b. - Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. <i>For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.</i></p>	<p>Coming into this unit, students should have a strong foundation in:</p> <ul style="list-style-type: none"> ✓ Operations with rational numbers ✓ Solving equations for a single variable ✓ Writing equations for verbal expressions <p>This unit builds to the following future skills and concepts:</p> <ul style="list-style-type: none"> ✓ Linear inequalities ✓ Systems of linear inequalities
Additional Resources	"Learning Checks"
Materials to support understanding and enrichment	Questions Parents Can Use to Assess Understanding
<ul style="list-style-type: none"> ✓ Teaching videos made by Wake County teachers ✓ WCPSS YouTube Channel – Math Playlist ✓ Solving Inequalities and Graphing Their Solutions ✓ Solving Inequalities ✓ Quiz Yourself on Solving and Graphing Inequalities ✓ How to Write Inequalities from Word Problems ✓ Writing Inequalities from Word Problems 	<ul style="list-style-type: none"> ✓ What are some situations that could be represented by inequalities rather than equations? ✓ How do you know that it is necessary to flip the inequality sign on an algebraic inequality? ✓ How is solving inequalities similar to solving equations? Are there any differences? ✓ How do you check to see if a number is a solution to an inequality? ✓ What are some verbal expressions that represent inequalities?