

Math 7 Unit 6 Overview: Percents

Unit Outcomes At the end of this unit, your student should be able to:	Key Vocabulary Terms to deepen the student's understanding
<ul style="list-style-type: none"> ✓ Solve basic percent problems using double number lines, tape diagrams, equations, and proportions ✓ Find percent of change ✓ Find percent discount and mark-up using tape diagrams, double number lines, equations or proportions ✓ Solve problems involving tax, tip, commission, and mixtures using a variety of methods ✓ Find percent error 	<ul style="list-style-type: none"> ✓ Balance ✓ Commission ✓ Discount ✓ Fees ✓ Interest (I) ✓ Mark-Down ✓ Mark-Up ✓ Measured Value ✓ Percent ✓ Percent Change ✓ Percent Decrease ✓ Percent Error ✓ Percent Increase ✓ Predicted Value ✓ Principal (p) ✓ Rate (r) ✓ Simple interest ✓ Tax ✓ Time (t) ✓ Tip
Key Standards Addressed Connections to Common Core/NC Essential Standards	Where This Unit Fits Connections to prior and future learning
<p>7.EE.2 - Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.</p> <p>7.EE.3 - Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole number, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p> <p>7.RP.3 - Use proportional relationships to solve multistep ratio and percent problems.</p>	<p>Coming into this unit, students should have a strong foundation in:</p> <ul style="list-style-type: none"> ✓ Setting up proportions ✓ Solving equations for a variable ✓ Understanding part to part and part to whole relationships <p>This unit builds to the following future skills and concepts:</p> <ul style="list-style-type: none"> ✓ Proportionality for direct variation ✓ Using formulas in the geometry units

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Additional Resources Materials to support understanding and enrichment	“Learning Checks” 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 ✓ Percents Using Double Number Lines ✓ Percents Using Tape Diagrams ✓ Writing Percent Equations ✓ Using and Working through Percent Equations ✓ More Percent Equation Practice – <i>Be sure to watch all three videos in the series titled “Solving Percent Problems 1-3”.</i> ✓ Finding Percent Change Using Proportions ✓ More Methods for Finding Percent Change – <i>This website also has practice problems.</i> ✓ Percent Discount, Tax, Tip and Mark-Up ✓ Finding Discount and Sale Price ✓ Commission ✓ More Practice Finding Commission ✓ Mixture - Enrichment ✓ Simple Interest ✓ Percent Error 	<ul style="list-style-type: none"> ✓ What are some different methods for finding percent of a number? ✓ How do you know how to set up an equation to find percents? Proportion? ✓ When are tape diagrams more beneficial than number line diagrams? ✓ When are number line diagrams more beneficial than tape diagrams? ✓ What are similarities and differences between tax, tip, and commission? ✓ How do you find percent change? Percent error? What’s the difference between the two? ✓ How can you use percents to figure out your grade in any class?

* **Please note**, the unit guides are a work in progress. If you have feedback or suggestions on improvement, please feel free to contact wakemiddle@wcpss.net.