

Math 7 Pacing Guide 2016-2017

7.1d*	Square Roots <ul style="list-style-type: none">Determine the square root of a perfect square less than or equal to 400
7.1e	Absolute Value <ul style="list-style-type: none">Identify and describe absolute value
7.3a	Integer Operations (Modeling) <ul style="list-style-type: none">Model addition, subtraction, multiplication and division of integers using pictorial representations of concrete manipulatives
7.3b*	Integer Operations <ul style="list-style-type: none">Add, subtract, multiply, and divide integersSimplify numerical expressions using order of operations.Solve practical problems
7.16	Properties <ul style="list-style-type: none">Identify properties of operations used in simplifying expressions.<ul style="list-style-type: none">Commutative and AssociativeDistributiveAdditive and Multiplicative IdentityAdditive and Multiplicative InverseMultiplicative Property of ZeroApply the properties of operations to simplify expressions.
7.13	Expressions <ul style="list-style-type: none">Write verbal expressions as algebraic expressionsWrite verbal sentences as algebraic equationsTranslate algebraic expressions and equations to verbal expressions and sentencesIdentify examples of expressions and equations.Evaluate expressions for given replacement values of the variables
7.2	Sequences <ul style="list-style-type: none">Analyze arithmetic and geometric sequences to discover a variety of patterns.Identify the common difference in an arithmetic sequenceIdentify the common ratio in a geometric sequence

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	<ul style="list-style-type: none"> Write a variable expression to describe the relationship between two consecutive terms in the sequence
	Extra time provided for NWEA testing, benchmarks, school orientation, etc.
SOL	Topic
	<u>Negative Powers of Ten</u>
<u>7.1a</u>	<ul style="list-style-type: none"> Recognize powers of 10 with negative exponents by examining patterns Write a power of 10 with a negative exponent in fraction and decimal form
	<u>Scientific Notation, Fractions, Decimals, Percents</u>
<u>7.1b-c*</u>	<ul style="list-style-type: none"> Recognize and write a number greater than 0 in scientific notation Compare and determine equivalent relationships between numbers written in scientific notation Represent a number in fraction, decimal, and percent forms Compare, order, and determine equivalent relationships among fractions, decimals, and percents Order numbers written in scientific notation
	<u>Equations</u>
<u>7.14</u>	<ul style="list-style-type: none"> Use concrete materials, pictorial representations and algebraic sentences to solving one- and two-step equations Solve one- and two-step linear equations in one variable Solve practical problems that require the solution of a one- or two-step linear equation
	<u>Inequalities</u>
<u>7.15</u>	<ul style="list-style-type: none"> Use concrete materials, pictorial representations and algebraic sentences to solve inequalities in one variable Graph solutions to inequalities on the number line Identify a numerical value that satisfies the inequality
	<u>Representations of Relations and Functions</u>
<u>7.12</u>	<ul style="list-style-type: none"> Describe and represent relations and functions, using tables, graphs, rules, and words Given one representation, represent the relation in another form
	Extra time provided for benchmark testing
SOL	Topic
<u>7.9</u>	<u>Probability</u>

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	<ul style="list-style-type: none"> • Determine the theoretical probability of an event • Determine the experimental probability of an event • Describe changes in the experimental probability as the number of trials increases • Investigate and describe the difference between the theoretical and experimental probability of the same event
7.10	<p>Probability of Compound Events</p> <ul style="list-style-type: none"> • Compute the number of possible outcomes using the Fundamental Counting Principle. • Determine the probability of a compound event
7.4	<p>Proportional Reasoning</p> <ul style="list-style-type: none"> • Write proportion that represent equivalent relationships between two sets • Solve a proportion to find a missing term • Apply proportions to convert units of measurement • Apply proportions to solve practical problems, including scale drawings • Using 10% as a benchmark, mentally compute 5%, 10%, 15%, or 20% in a practical situation such as tips, tax and discounts • Solve problems involving tips, tax, and discount
7.6	<p>Similar Figures</p> <ul style="list-style-type: none"> • Identify corresponding sides and congruent angles of similar figures • Write proportions to express the relationships between the lengths of corresponding sides of similar figures. • Determine if quadrilaterals or triangles are similar • Given two similar figures, write similarity statements using symbols for triangles, angles, and segments
7.11	<p>Statistics</p> <ul style="list-style-type: none"> • Collect, analyze, display, and interpret a data set using histograms • Determine patterns and relationships within data sets (e.g., trends) • Make inferences, conjectures, and predictions by analyzing a set of data. • Compare and contrast histograms with line plots, circle graphs, and stem-and-leaf plots from the same data set
SOL	Topic
7.7	Quadrilaterals

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	<ul style="list-style-type: none">• Compare and contrast attributes of the following quadrilaterals: parallelogram, rectangle, square, rhombus, and trapezoid.• Identify the classification(s) to which a quadrilateral belongs, using deductive reasoning and inference
7.5	<p>Volume and Surface Area</p> <ul style="list-style-type: none">• Determine if a practical problem represents the application of volume or surface area• Find the volume and surface area of a rectangular prism• Find the volume and surface area of a cylinder.• Solve practical problems that require finding the volume and surface area of a rectangular prism• Solve practical problems that require finding the volume and surface area of a cylinder• Describe how the volume and surface area of a rectangular prism is affected when one measured attribute is multiplied by a scale factor
7.8	<p>Transformations</p> <ul style="list-style-type: none">• Identify the coordinates of the image of a right triangle or rectangle that has been translated, rotated, reflected, or dilated• Sketch the image of a right triangle or rectangle translated, rotated, reflected, or dilated
	<p>SOL Review & Resources</p>
	Extra time provided for NWEA testing, SOL simulation, etc.