

7th Grade Math Pacing Guide

First Nine Weeks

Mathematical Processes

0706.1.1 Use proportional reasoning to solve mixture/concentration problems.

CC – Analyze proportional relationships and use them to solve real-world and mathematical problems.

Number and Operations

0706.2.2 Compare rational numbers using appropriate inequality symbols.

0706.2.3 Use rational numbers and roots of perfect squares/cubes to solve contextual problems.

0706.2.4 Determine the appropriate location of square/cube roots on a number line .

0706.2.5 Solve contextual problems that involve operations with integers.

0706.2.6 Express the ratio between two quantities as a percent, and a percent as a ratio or fraction.

0706.2.7 Use ratios and proportions to solve problems.

CC – Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

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Second Nine Weeks

Mathematical Processes

- 0706.1.2** Generalize a variety of patterns to a symbolic rule from tables, graphs, or words.
- 0706.1.3** Recognize whether information given in a table, graph, or formula suggests a directly proportional, linear, inversely proportional, or other nonlinear relationship.

Number and Operations

- 0706.2.1** Simplify numerical expressions involving rational numbers.

Algebra

- 0706.3.1** Evaluate algebraic expressions involving rational values for coefficients and/or variables.
- 0706.3.2** Determine whether a relation (represented in various ways) is a function.
- 0706.3.3** Given a table of inputs x and outputs $f(x)$, identify the function rule and continue the pattern.
- 0706.3.4** Interpret the slope of a line as a unit rate given the graph of a proportional relationship.
- 0706.3.5** Represent proportional relationships with equations, tables, and graphs.
- 0706.3.6** Solve linear equations with rational coefficients symbolically or graphically.
- 0706.3.7** Translate between verbal and symbolic representations of real-world phenomena involving linear equations.
- 0706.3.8** Solve contextual problems involving two-step linear equations.
- 0706.3.9** Solve linear inequalities in one variable with rational coefficients symbolically or graphically

*CC—Use properties of operations to generate equivalent expressions.
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.*

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Third Nine Weeks

Mathematical Processes

0706.1.4 Use scales to read maps.

Geometry and Measurement

0706.4.1 Solve contextual problems involving similar triangles.

0706.4.2 Use SSS, SAS, and AA to determine if two triangles are similar.

0706.4.3 Apply scale factor to solve problems involving area and volume

CC-Draw, construct and describe geometrical figures and describe the relationships between them.

CC-Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

Data Analysis, Statistics, and Probability

0706.5.1 Interpret and employ various graphs and charts to represent data.

0706.5.2 Select suitable graph types (such as bar graphs, histograms, line graphs, circle graphs, box-and-whisker plots, and stem-and-leaf plots) and use them to create accurate representations of given data.

0706.5.3 Calculate and interpret the mean, median, upper-quartile, lower-quartile, and inter-quartile range of a set of data.

0706.5.4 Use theoretical probability to make predictions.

CC – Use random sampling to draw inferences about two populations.

Draw informal comparative inferences about two populations.

Investigate chance processes and develop, use, and evaluate probability models.