

Standards Table: 7th Grade Mathematics

SPIs: Focus Content

Mathematical Processes	SPI 0706.1.1 Use proportional reasoning to solve mixture/concentration problems.
	SPI 0706.1.2 Generalize a variety of patterns to a symbolic rule from tables, graphs, or words.
	SPI 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	SPI 0706.2.1 Simplify numerical expressions involving rational numbers
	SPI 0706.2.2 Compare rational numbers using appropriate inequality symbols.
	SPI 0706.2.5 Solve contextual problems that involve operations with integers.
	SPI 0706.2.6 Express the ratio between two quantities as a percent, and a percent as a ratio or fraction.
	SPI 0706.2.7 Use ratios and proportions to solve problems.
Algebra	SPI 0706.3.1 Evaluate algebraic expressions involving rational values for coefficients and/or variables.
	SPI 0706.3.4 Interpret the slope of a line as a unit rate given the graph of a proportional relationship.
	SPI 0706.3.5 Represent proportional relationships with equations, tables and graphs.
	SPI 0706.3.6 Solve linear equations with rational coefficients symbolically or graphically.
	SPI 0706.3.7 Translate between verbal and symbolic representations of real-world phenomena involving linear equations.
	SPI 0706.3.8 Solve contextual problems involving two-step linear equations.
SPIs: Other Content	
Mathematical Processes	SPI 0706.1.4 Use scales to read maps.
Geometry and Measurement	SPI 0706.4.1 Solve contextual problems involving similar triangles.

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Data Analysis, Statistics and Probability	SPI 0706.5.3 Calculate and interpret the mean, median, upper-quartile, lower-quartile, and interquartile range of a set of data.
	SPI 0706.5.4 Use theoretical probability to make predictions.
Dropped SPIs: These SPIs will not appear on the 2013-14 TCAP Achievement Exams	
Number and Operations	SPI 0706.2.3 Use rational numbers and roots of perfect squares/cubes to solve contextual problems.
	SPI 0706.2.4 Determine the approximate location of square/cube roots on a number line.
Algebra	SPI 0706.3.2 Determine whether a relation (represented in various ways) is a function.
	SPI 0706.3.3 Given a table of inputs x and outputs $f(x)$, identify the function rule and continue the pattern.
	SPI 0706.3.9 Solve linear inequalities in one variable with rational coefficients symbolically or graphically.
Geometry and Measurement	SPI 0706.4.2 Use SSS, SAS, and AA to determine if two triangles are similar.
	SPI 0706.4.3 Apply scale factor to solve problems involving area and volume.
Data Analysis, Statistics and Probability	SPI 0706.5.1 Interpret and employ various graphs and charts to represent data.
	SPI 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.