

### Pacing Guides for Acuity Readiness Form A Grade 7 - Math

Grade	Domain	Cluster	Cluster	Standard Skills	DOK
Grade 06	6.EE Expressions and Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	Apply and extend previous understandings of arithmetic to algebraic expressions	6.EE.4 Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number $y$ stands for.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.EE Expressions and Equations	Reason about and solve one-variable equations and inequalities	Reason about and solve one-variable equations and inequalities	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	Level 2 - Using Fundamental Concepts and Procedures/ Level 1- Recognizing and Recalling
Grade 06	6.EE Expressions and Equations	Reason about and solve one-variable equations and inequalities	Reason about and solve one-variable equations and inequalities	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which $p$ , $q$ and $x$ are all nonnegative rational numbers.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.EE Expressions and Equations	Represent and analyze quantitative relationships between dependent and independent variables	Represent and analyze quantitative relationships between dependent and independent variables	6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.	Level 2 - Using Fundamental Concepts and Procedures

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Grade 06	6.G Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	Solve real-world and mathematical problems involving area, surface area, and volume	6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	Level 2 - Using Fundamental Concepts and Procedures/ Level 1 Recall
Grade 06	6.G Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	Solve real-world and mathematical problems involving area, surface area, and volume	6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.G Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	Solve real-world and mathematical problems involving area, surface area, and volume	6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.G Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	Solve real-world and mathematical problems involving area, surface area, and volume	6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.NS The Number System	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$ . (In general, $(a/b) \div (c/d) = ad/bc$ .) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$ -cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?	Level 1 - Recall

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Grade 06	6.NS The Number System	Apply and extend previous understandings of numbers to the system of rational numbers	6.NS.7 Understand ordering and absolute value of rational numbers.	6.NS.7.b Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3$ degrees C $>$ $-7$ degrees C to express the fact that $-3$ degrees C is warmer than $-7$ degrees C.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.NS The Number System	Apply and extend previous understandings of numbers to the system of rational numbers	6.NS.7 Understand ordering and absolute value of rational numbers.	6.NS.7.c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of $-30$ dollars, write absolute value $(-30) = 30$ to describe the size of the debt in dollars.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.SP Statistics and Probability	Develop understanding of statistical variability	Develop understanding of statistical variability	6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	Level 1 - Recall
Grade 06	6.SP Statistics and Probability	Summarize and describe distributions	Summarize and describe distributions	6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	Level 2 - Using Fundamental Concepts and Procedures
Grade 06	6.SP Statistics and Probability	Summarize and describe distributions	6.SP.5 Summarize numerical data sets in relation to their context, such as by:	6.SP.5.a Reporting the number of observations.	Level 1 - Recall
Grade 06	6.SP Statistics and Probability	Summarize and describe distributions	6.SP.5 Summarize numerical data sets in relation to their context, such as by:	6.SP.5.b Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	~
Grade 06	6.SP Statistics and Probability	Summarize and describe distributions	6.SP.5 Summarize numerical data sets in relation to their context, such as by:	6.SP.5.c Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	~

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Grade 07	7.NS The Number System	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers	7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	7.NS.1.b Understand $p + q$ as the number located a distance absolute value( $q$ ) from $p$ , in the positive or negative direction depending on whether $q$ is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.NS The Number System	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers	7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	7.NS.1.c Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$ . Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.NS The Number System	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers	7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	7.NS.1.c Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$ . Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.	Level 1 - Recall

Grade	Domain	Cluster	Cluster	Standard Skills	DOK
Grade 07	7.NS The Number System	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers	7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	7.NS.1.d Apply properties of operations as strategies to add and subtract rational numbers.	Level 1 - Recall
Grade 07	7.RP Ratios and Proportional Relationships	Analyze proportional relationships and use them to solve real-world and mathematical problems	7.RP.2 Recognize and represent proportional relationships between quantities.	7.RP.2.a Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.RP Ratios and Proportional Relationships	Analyze proportional relationships and use them to solve real-world and mathematical problems	7.RP.2 Recognize and represent proportional relationships between quantities.	7.RP.2.b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.RP Ratios and Proportional Relationships	Analyze proportional relationships and use them to solve real-world and mathematical problems	7.RP.2 Recognize and represent proportional relationships between quantities.	7.RP.2.d Explain what a point $(x, y)$ on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where $r$ is the unit rate.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.SP Statistics and Probability	Use random sampling to draw inferences about a population	Use random sampling to draw inferences about a population	7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.SP Statistics and Probability	Use random sampling to draw inferences about a population	Use random sampling to draw inferences about a population	7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.	~