

Pacing Guides for Acuity Readiness Form B Grade 7- Mathematics

Grade	Domain	Cluster	Cluster	Standard	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.3 Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.	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.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	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.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths 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.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.NS The Number System	Compute fluently with multi-digit numbers and find common factors and multiples	Compute fluently with multi-digit numbers and find common factors and multiples	6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	Level 1 - Recall
Grade 06	6.NS The Number System	Apply and extend previous understandings of numbers to the system of rational numbers	6.NS.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.	6.NS.6.c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.	Level 1 - Recall
Grade 06	6.NS The Number System	Apply and extend previous understandings of numbers to the system of rational numbers	Apply and extend previous understandings of numbers to the system of rational numbers	6.NS.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	Level 2 - Using Fundamental Concepts and Procedures

Grade 06	6.RP Ratios and Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	6.RP.3.a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	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.b Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	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.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.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.EE Expressions and Equations	Use properties of operations to generate equivalent expressions	Use properties of operations to generate equivalent expressions	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. For example, $a + 0.05a = 1.05a$ means that increase by 5% is the same as multiply by 1.05.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.EE Expressions and Equations	Solve real-life and mathematical problems using numerical and algebraic expressions and equations	Solve real-life and mathematical problems using numerical and algebraic expressions and equations	7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, 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. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.EE Expressions and Equations	Solve real-life and mathematical problems using numerical and algebraic expressions and equations	7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	7.EE.4.a Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?	Level 2 - Using Fundamental Concepts and Procedures

Grade 07	7.EE Expressions and Equations	Solve real-life and mathematical problems using numerical and algebraic expressions and equations	7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	7.EE.4.b Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.G Geometry	Draw, construct, and describe geometrical figures and describe the relationships between them	Draw, construct, and describe geometrical figures and describe the relationships between them	7.G.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	Level 2 - Using Fundamental Concepts and Procedures
Grade 07	7.G Geometry	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume	7.G.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	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 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 - Recognizing and Recalling
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.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	7.NS.2.b Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.	Level 1 - Recall
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.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	7.NS.2.c Apply properties of operations as strategies to multiply and divide rational numbers.	Level 1 - Recall
Grade 07	7.NS The Number System	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers	7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.	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