

Advanced – Performance Level 4 (Score range: 614 to 860)

Students apply equivalent representations of decimals, fractions, percents; apply congruency to multiple polygons, use fractional parts of geometric figures; identify nonequivalent fractional parts of a whole; translate algebraic expressions, equations into words; analyze, extend nonlinear patterns; analyze bar, circle graphs; construct histograms; reason about parallel, perpendicular lines; determine coordinates of points on grids; find circumference, radius of circles; transform geometric shapes; solve problems involving area, volume, compute with fractions; use correct order of operations.

Proficient – Performance Level 3 (Score range: 559 to 613)

Students represent equivalent fractions; estimate sums with decimals; determine, simplify ratios; determine lowest common multiple; determine, analyze, extend numeric, geometric patterns; determine median, mode, range; complete frequency table; determine, express probabilities as fraction, decimal, percent; plot ordered pairs on grid; read line graphs, determine scales; add, subtract decimals multiply two-digit whole numbers; scale up fractions; identify fractional parts of a whole.

Partially Proficient – Performance Level 2 (Score range: 487 to 558)

Students translate words to algebraic equations; analyze, extend geometric patterns; draw conclusions from line graphs; analyze data to predict outcomes; measure distance and apply scale on maps; compute with whole numbers.

Unsatisfactory – Performance Level 1 (Score range: 280 to 486)

Students read and write whole numbers; read and interpret line and circle graphs, visualize three dimensional models, use exponents to indicate the number of times a base is used.



Advanced	Proficient	Partially Proficient	Unsatisfactory
<p>Standard 1 Students demonstrate exceptional use of number sense and use of numbers by</p> <ul style="list-style-type: none"> Applying equivalent representations of rational numbers, decimals, and fractions, in problem-solving situations Recognizing and using fractional parts of a geometric figure in multistep problem-solving situations Applying fractions, decimals, and percents in problem-solving situations <p>Students may also demonstrate exceptional use of number sense and use of numbers by</p> <ul style="list-style-type: none"> Recognizing and using the relationship among non-equivalent fractional parts in multistep problem-solving situations Applying fractions, decimals, and percents in problem-solving situations 	<p>Standard 1 Students demonstrate use of number sense and use of numbers by</p> <ul style="list-style-type: none"> Representing equivalent fractions Estimating the sum of decimals Determining the lowest common multiplier in problem-solving situations Determining and simplifying ratios in problem-solving situations <p>Reading, identifying, and using place value concepts with large whole numbers</p>	<p>Standard 1 No evidence for this standard at this performance level.</p>	<p>Standard 1 Students demonstrate minimal use of number sense and use of numbers by</p> <ul style="list-style-type: none"> Reading and writing whole numbers Using exponents to indicate how many times a base is used



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<p>Standard 2 Students demonstrate exceptional use of algebraic methods to explore, model, and describe patterns and functions by</p> <ul style="list-style-type: none"> • Translating algebraic expressions and equations into written words and translating written words into algebraic expressions and equations • Analyzing, representing, and comparing the relationships between two linear patterns in problem-solving situations • Determining, analyzing, and extending patterns using estimation in problem-solving situations • Analyzing, identifying, and extending nonlinear patterns in tables • Analyzing and identifying geometric patterns involving perimeter <p>Students may also demonstrate exceptional use of algebraic methods to explore, model, and describe patterns and functions by</p> <ul style="list-style-type: none"> • Analyzing, representing, and comparing the relationship of two linear patterns in problem-solving situations • Analyzing and extending geometric patterns involving rotations • Identifying, analyzing, and generalizing geometric patterns involving perimeter • Determining, analyzing, and extending patterns using estimation in problem-solving situations 	<p>Standard 2 Students demonstrate use of algebraic methods to explore, model, and describe patterns and functions by</p> <ul style="list-style-type: none"> • Identifying, applying, and extending linear patterns in tables • Identifying geometric patterns involving perimeter • Analyzing and extending geometric patterns • Determining numerical patterns using estimation in problem-solving situations 	<p>Standard 2 Students demonstrate limited use of algebraic methods to explore, model, and describe patterns and functions by</p> <ul style="list-style-type: none"> • Translating written words into algebraic equations • Analyzing and extending geometric patterns 	<p>Standard 2 No evidence of this standard at this performance level.</p>



Advanced	Proficient	Partially Proficient	Unsatisfactory
<p>Standard 3 Students demonstrate exceptional use of data collection and analysis, statistics, and probability by</p> <ul style="list-style-type: none"> Using counting strategies to determine all the possible outcomes for given events Analyzing data and drawing conclusions from double bar graphs Reading and interpreting data in circle graphs Determining median, mode, and range of sets of data in problem-solving situations Reading, interpreting, and drawing conclusions from circle graphs in problem-solving situations Constructing, interpreting, and drawing conclusions from histograms in problem-solving situations 	<p>Standard 3 Students demonstrate use of data collection and analysis, statistics, and probability by</p> <ul style="list-style-type: none"> Determining median or mode and range of a set of data in problem-solving situations Completing a frequency table in problem-solving situations Determining and expressing the probability of simple events as fractions, decimals, or percents 	<p>Standard 3 Students demonstrate limited use of data collection and analysis, statistics, and probability by</p> <ul style="list-style-type: none"> Reading, interpreting, and drawing conclusions from line graphs Analyzing data in a table to predict future outcomes 	<p>Standard 3 Students demonstrate minimal use of data collection and analysis, statistics, and probability by</p> <ul style="list-style-type: none"> Reading and interpreting line graphs Reading and interpreting circle graphs



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<p>Standard 4 Students demonstrate exceptional use of geometric concepts, properties, and relationships by</p> <ul style="list-style-type: none"> Applying the concept of congruency to multiple polygons in problem-solving situations Reasoning informally about parallel and perpendicular lines Determining the coordinates of the point of intersection for two lines on a grid Solving problems involving area in real-world situations Transforming geometric shapes using reflection, translation, and rotation <p>Students may also demonstrate exceptional use of geometric concepts, properties, and relationships by</p> <ul style="list-style-type: none"> Determining part-to-whole ratios in geometric figures by using congruency 	<p>Standard 4 Students demonstrate use of geometric concepts, properties, and relationships by</p> <ul style="list-style-type: none"> Plotting and labeling ordered pairs on a grid in four quadrants in problem-solving situations Determining the coordinates of the resulting vertex from the translation of geometric figures on a grid 	<p>Standard 4 No evidence of this standard at this performance level.</p>	<p>Standard 4 Students demonstrate minimal use of geometric concepts, properties, and relationships by</p> <ul style="list-style-type: none"> Visualizing three dimensional models



Advanced	Proficient	Partially Proficient	Unsatisfactory
<p>Standard 5 Students demonstrate exceptional use of a variety of tools and techniques to measure by</p> <ul style="list-style-type: none"> Identifying the procedure to find the areas of rectangles Measuring and approximating distances on maps using a scale Determining areas of triangles and parallelograms Finding the circumference of circles Measuring, determining, and justifying distances on maps using a scale Determining and applying the areas of triangles and parallelograms in problem-solving situations <p>Students may also demonstrate exceptional use of a variety of tools and techniques to measure by</p> <ul style="list-style-type: none"> Determining circumference given radius, determining radius given circumference, and applying ratios of circumferences Solving problems involving volume of rectangular prisms Determining, applying, and comparing areas of triangles and parallelograms in multistep problem-solving situations Measuring and applying scale to estimate distance on maps 	<p>Standard 5 Students demonstrate use of a variety of tools and techniques to measure by</p> <ul style="list-style-type: none"> Reading and interpreting line graphs at irregular intervals Determining scale for a scale diagram 	<p>Standard 5 Students demonstrate limited use of a variety of tools and techniques to measure by</p> <ul style="list-style-type: none"> Measuring distance and applying a scale on maps 	<p>Standard 5 No evidence of this standard at this performance level.</p>



Advanced	Proficient	Partially Proficient	Unsatisfactory
<p>Standard 6 Students demonstrate exceptional use of computational techniques in problem solving situations by</p> <ul style="list-style-type: none"> • Computing with fractions and using ratios and proportions in problem-solving situations • Computing by subtracting mixed numbers <p>Students may also demonstrate exceptional use of computational techniques in problem-solving situations by</p> <ul style="list-style-type: none"> • Computing and applying order of operation with whole numbers 	<p>Standard 6 Students demonstrate use of computational techniques in problem-solving situations by</p> <ul style="list-style-type: none"> • Adding and subtracting decimals • Multiplying two-digit whole numbers • Identifying the fractional part of a whole from visual models • Dividing and subtracting whole numbers in problem-solving situations • Multiplying and using ratio and proportion with whole numbers and fractions in problem-solving situations 	<p>Standard 6 Students demonstrate limited use of computational techniques in problem-solving situations by</p> <ul style="list-style-type: none"> • Computing with whole numbers involving the use of parentheses 	<p>Standard 6 No evidence of this standard at this performance level.</p>