

Advanced – Performance Level 4 (Score range: 589 to 830)

Students demonstrate equivalency among fractions, decimals, and percents; apply number sense; solve real-world problems using geometric and numeric patterns; solve problems using ratios and proportions; describe the likelihood of 3 events based on a set of data; identify and apply geometric attributes and coordinate geometry to describe, create, and reason about 2-dimensional figures; use standard and metric measurement, use appropriate methods to solve problems using decimals, mixed numbers, and fractions.

Proficient – Performance level 3 (Score range: 520 to 588)

Students recognize equivalency of commonly used fractions and percents; use simple geometric and numeric patterns to solve real-world problems; use single variables; construct, analyze, compare, and draw conclusions based on data displays; calculate mean values; make predictions based on data; identify attributes on geometric shapes; use x- and y-coordinates in quadrant 1 of a coordinate plane; apply distance in scaled diagrams; add, subtract, multiply, and divide whole numbers; apply appropriate method to solve word problems with whole numbers, calculate with decimals in monetary form.

Partially Proficient – Performance Level 2 (Score range: 454 to 519)

Students recognize, represent, and extend simple geometric, numeric patterns using pictures, tables, charts and symbols; construct bar graphs with appropriate intervals; read and plot points in quadrant 1 of a coordinate plane; determine perimeter.

Unsatisfactory – Performance Level 1 (Score range: 240 to 453)

Students recognize, represent, and extend simple geometric, numeric patterns using pictures, tables, charts, and symbols, construct bar graphs with appropriate intervals; read and plot points in quadrant 1 of a coordinate plane; determine perimeter.



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"> estimating and solving problems involving decimals. estimating fractions from visual representations. demonstrating equivalent relationships among fractions and percents in problem-solving situations. demonstrating equivalent relationships among decimals and fractions. applying the concept of multiples in problem-solving situations. applying number theory concepts in problem-solving situations. using visual representations of fractions to demonstrate equivalence of fractional parts and percent of parts. <p>Students may also demonstrate exceptional use of number sense and use of numbers by:</p> <ul style="list-style-type: none"> demonstrating conceptual understanding and communicating reasoning about fractions and percents. using decimals to estimate in problem-solving situations. applying number theory concepts to determine described numbers. 	<p>Standard 1 Students demonstrate use of number sense and use of numbers by:</p> <ul style="list-style-type: none"> demonstrating understanding of equivalent fractions. understanding properties of operations involving odd and even numbers. using visual representations to demonstrate equivalence of common fractions and percents. 	<p>Standard 1 No evidence of 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"> demonstrating knowledge of fractional parts using numerator and denominator.



Advanced	Proficient	Partially Proficient	Unsatisfactory
<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"> • solving problems by extending complex geometric and numeric patterns using pictures, tables, words, or symbols. • generalizing patterns and using words to describe rules for extending patterns. • predicting and describing how a change in one quantity results in a change in another quantity. • communicating the reasoning used in solving problems involving linear patterns. <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"> • solving real-world problems by generalizing and extending patterns. • using algebraic methods to solve ratio and proportion problems. 	<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"> • describing, representing, and extending geometric and numeric patterns using pictures, tables, charts, and symbols. • solving real-world problems by analyzing and describing patterns. • generalizing patterns and using rules for extending patterns. • describing how a change in one quantity results in a change in another quantity. • using variables to represent unknowns. 	<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"> • recognizing, representing, and extending geometric and simple numeric patterns using pictures, tables, charts, and symbols. 	<p>Standard 2 Students demonstrate minimal use of algebraic methods to explore, model, and describe patterns and functions by:</p> <ul style="list-style-type: none"> • recognizing, representing, and extending geometric patterns using pictures.



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"> • constructing, analyzing, and drawing conclusions based on bar graphs. • analyzing and comparing data from bar graphs. • describing events as likely or unlikely based on sets of data. • describing and analyzing data on line graphs. <p>Students may also demonstrate exceptional use of data collection and analysis, statistics, and probability by:</p> <ul style="list-style-type: none"> • interpreting and making inferences using data on circle graphs. 	<p>Standard 3 Students demonstrate use of data collection and analysis, statistics, and probability by:</p> <ul style="list-style-type: none"> • choosing the point on bar graphs using given data. • analyzing and describing patterns of data in line graphs. • calculating mean values. • drawing conclusions and predicting outcomes based on data. • representing data on line graphs. • interpreting and drawing conclusions using circle graphs. • making predictions based on data obtained from simple probability experiments. 	<p>Standard 3 Students demonstrate limited use of data collection and analysis, statistics, and probability by:</p> <ul style="list-style-type: none"> • constructing bar graphs with appropriate intervals. 	<p>Standard 3 Students demonstrate minimal use of data collection and analysis, statistics, and probability by:</p> <ul style="list-style-type: none"> • reading data in line graphs. • attempting to construct line graphs. • attempting to construct bar graphs. • plotting data on bar graphs using a scaled axis.



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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"> identifying geometric attributes in 2-dimensional figures. recognizing parallelism and perpendicularity among parts of 2-dimensional shapes. applying geometric spatial realism in transformations. creating geometric shapes with similar attributes within a coordinate plane. creating and identifying symmetry in multi-sided geometric figures. <p>Students may also demonstrate exceptional use of geometric concepts, properties, and relationships by:</p> <ul style="list-style-type: none"> using coordinate geometry to identify missing plots within spatial settings. identifying x- and y-coordinates. recognizing slope. interpreting geometric attributes using "always" and "never." 	<p>Standard 4 Students demonstrate use of geometric concepts, properties, and relationships by:</p> <ul style="list-style-type: none"> identifying parallelism in real-world situations. identifying symmetry in irregular geometric shapes. identifying attributes of angles within geometric shapes. identifying x- and y-coordinates in quadrant 1 of a coordinate plane. plotting and labeling geometric figures. 	<p>Standard 4 Students demonstrate limited use of geometric concepts, properties, and relationships by:</p> <ul style="list-style-type: none"> reading points in quadrant 1. reading ordered pairs. measuring using centimeter ruler. determining perimeters. plotting points in quadrant 1. identifying rectangles on the coordinate plane. 	<p>Standard 4 Students demonstrate minimal use of geometric concepts, properties, and relationships by:</p> <ul style="list-style-type: none"> identifying perimeter.



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<p>Standard 5</p> <p>Students demonstrate exceptional use of a variety of tools and techniques to measure by:</p> <ul style="list-style-type: none"> identifying intervals between data points on graphs to estimate measurements. recognizing direct measurements of temperature for comparative values. comparing perimeter measurements for multiple polygons. identifying a procedure to find measures of a figure. <p>Students may also demonstrate exceptional use of a variety of tools and techniques to measure by:</p> <ul style="list-style-type: none"> using measurement to identify distances in scale diagrams. 	<p>Standard 5</p> <p>Students demonstrate use of a variety of tools and techniques to measure by:</p> <ul style="list-style-type: none"> measuring and applying standard measurements to scale drawings. applying metric measurements to determine scale. using measurement to find distance in scale diagrams. 	<p>Standard 5</p> <p>No evidence of this standard at this performance level.</p>	<p>Standard 5</p> <p>Students demonstrate minimal use of a variety of tools and techniques to measure by:</p> <ul style="list-style-type: none"> measuring using a centimeter ruler.



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<p>Standard 6</p> <p>Students demonstrate exceptional use of computational techniques in problem-solving situations by:</p> <ul style="list-style-type: none"> • adding decimals with different place values. • applying computational methods to solve multistep problems using decimals. • applying computational methods to solve multistep problems using mixed numbers and fractions. • applying ratios and proportions in real-world situations. <p>Students may also demonstrate exceptional use of computational techniques in problem-solving situations by:</p> <ul style="list-style-type: none"> • subtracting mixed numbers with like denominators. 	<p>Standard 6</p> <p>Students demonstrate use of computational techniques in problem-solving situations by:</p> <ul style="list-style-type: none"> • dividing whole numbers by 1-digit divisors. • multiplying 3-digit whole numbers by 2-digit whole numbers. • applying computational methods to solve word problems with whole numbers. • multiplying 2-digit whole numbers by 2-digit whole numbers divisible by 10. • subtracting decimals in money form. 	<p>Standard 6</p> <p>No evidence of this standard at this performance level.</p>	<p>Standard 6</p> <p>No evidence of this standard at this performance level.</p>