



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content
Strand: Ratios and Proportional Relationships (RP)
Benchmark Code: 7.SMC.RP.1

Standard: Analyze proportional relationships and use them to solve real-world and mathematical problems. (DOK 2)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge.</p> <p>Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Graph proportional relationships using an equation. ● Recognize the constant of proportionality as the slope of a line. ● Represent proportional relationships in more than one way. 	
	<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Identify the constant of proportionality or unit rate in a variety of contexts. ● Represent proportional relationships by writing an equation. ● Describe proportional relationships on a graph. ● Use proportional relationships to solve multi-step ratio and percent problems. 	
	<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ ratio, unit rate, constant of proportionality, proportion, percent, coordinate plane. ● Compute unit rates associated with ratios. ● Determine the proportional relationship between two quantities ● Plot points (x, y) on a graph to represent proportional relationships. 	
	<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
	<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
Score 0.0	Even with help, no success	



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content

Strand: The Number System (NS)

Benchmark Code: 7.SMC.NS.1

Standard: Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. (DOK 3)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge.</p> <p>Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Solve problems using multiple operations. ● Solve real-world word problems involving multiple operations. 	
	<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Describe situations in which opposite quantities combine to make 0. ● Add, subtract, multiply, or divide rational numbers by applying properties of operations. ● Interpret sums, differences, products, and quotients of rational numbers in real-world contexts. ● Solve real-world and mathematical problems using the four operations with rational numbers. 	
	<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ rational number, absolute value, sum, difference, product, quotient, integer. ● Recognize the distance between any two rational numbers on a number line is the absolute value of their difference. ● Recognize subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. ● Recognize that every quotient of integers with a non-zero divisor is a rational number. ● Convert rational numbers into decimals and show that a decimal either terminates or repeats. 	
	<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
	<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
Score 0.0	Even with help, no success	



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content

Strand: Expressions and Equations (EE)

Benchmark Code: 7.SMC.EE.1

Standard: Use properties of operations to generate equivalent expressions. (DOK 2)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge. Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Add and subtract higher order expressions with rational coefficients using properties of operations. 	
	<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Expand linear expressions with rational coefficients using properties of operations. ● Solve problems by rewriting an expression in a different form. 	
	<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ linear, expression, equivalent, coefficient, distribute, and factor. ● Add and subtract linear expressions with rational coefficients using properties of operations. ● Factor linear expressions with rational coefficients using properties of operations. 	
	<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
	<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
Score 0.0	Even with help, no success	



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content

Strand: Expressions and Equations (EE)

Benchmark Code: 7.SMC.EE.2

Standard: Solve real-life and mathematical problems using numerical and algebraic expressions and equations. (Equations) (DOK 2)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge. Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Apply multi-step equations to real-world situations. 	
<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>	
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Solve multi-step real-life and mathematical problems using positive and negative rational numbers in any form, including whole numbers, fractions, and decimals. ● Write and 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. ● Compare algebraic and arithmetic solutions to word problems by showing the sequence of operations in each approach. 	
<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>	
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ algebraic expression, equation, transformation, property of equality, distributive property, inverse operations, and order of operations. ● Calculate with positive and negative rational numbers in any form. ● Convert between numerical units using properties of operations. ● Assess the reasonableness of solutions by mentally computing and estimating with positive and negative numbers. 	
<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>	
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>	
Score 0.0	Even with help, no success	



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content

Strand: Expressions and Equations (EE)

Benchmark Code: 7.SMC.EE.2

Standard: Solve real-life and mathematical problems using numerical and algebraic expressions and equations. (Inequality)(DOK 3)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge. Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Apply multi-step inequalities to real-world situations. 	
	<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Solve mathematical and word problems leading to inequalities in the form of $px + q > r$, where p, q, and r are specific rational numbers. ● Solve mathematical and word problems leading to inequalities in the form of $px + q < r$, where p, q, and r are specific rational numbers. ● Solve word problems by graphing the solution set of an algebraic inequality. ● Interpret a graph showing the solution set of an algebraic inequality in the context of a word problem. 	
	<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ algebraic inequality, inequality, property of inequality Calculate with positive and negative rational numbers in any form. ● Convert between numerical units using properties of operations. ● Assess the reasonableness of solutions by mentally computing and estimating with positive and negative numbers. ● Graph the solution set of an algebraic inequality. 	
	<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
	<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
Score 0.0	Even with help, no success	



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content

Strand: Geometry (G)

Benchmark Code: 7.SMC.G.2

Standard: Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. (DOK 2)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge. Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Solve real-world problems involving finding unknown angles. ● Solve real-world problems by finding the area and circumference of a circle. 	
<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>	
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Solve problems using the formulas for the area and circumference of circles. ● Solve equations for an unknown angle in a figure using facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem. ● Solve real world and mathematical problems involving area of two and three dimensional figures. ● Solve real world and mathematical problems involving volume of two- and three-dimensional figures. ● Solve real world and mathematical problems involving surface area of two- and three-dimensional figures. 	
<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>	
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ area, volume, surface area, circumference, net. ● Recognize or recall the following terms: <ul style="list-style-type: none"> ○ angle, supplementary, complementary, vertical, adjacent ● Recognize or recall the following formulas: <ul style="list-style-type: none"> ○ area of a quadrilateral, area of a triangle, volume of a right rectangular prism, surface area of a right rectangular prism. ● Memorize the formulas for area and circumference of circles. ● Write equations for an unknown angle in a figure in a multi-step equation. 	
<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>	
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>	
Score 0.0	Even with help, no success	



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content

Strand: Statistics and Probability (SP)

Benchmark Code: 7.SMC.SP.1

Standard: Use random sampling to draw inferences about a population.(DOK 2)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge. Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Compare the characteristics of two or more statistical populations. ● Draw inferences about two or more populations. 	
	<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Compare the characteristics of a sample to a statistical population. ● Use data from a random sample to draw inferences about a population. ● Compare multiple or simulated samples of the same size to determine the variation in an estimate or prediction. 	
	<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ random sample, inference, estimate, prediction, statistical population. ● Determine under which conditions a sample is representative of a population. ● Determine under which conditions information obtained from a sample can support valid inferences. 	
	<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
	<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
Score 0.0	Even with help, no success	



Proficiency Scale Grade 7

Domain: Standards for Mathematical Content

Strand: Statistics and Probability (SP)

Benchmark Code: 7.SMC.SP.2

Standard: Draw informal comparative inferences about two populations. (DOK 2)

Score 4.0	<p>In addition to a score 3.0 performance, the student demonstrates in-depth inferences and/or application of knowledge.</p> <p>Examples include, but are not limited to:</p> <ul style="list-style-type: none"> ● Compare three of more numerical data distributions with similar variabilities. ● Draw inferences about three or more populations by comparing measures of center and measures of variability for numerical data from random samples. 	
	<i>Score 3.5</i>	<i>In addition to a score 3.0 performance, partial success at score 4.0 content</i>
Score 3.0	<p>Target goals:</p> <ul style="list-style-type: none"> ● Compare the visual overlap of two numerical data distributions with similar variabilities. ● Draw inferences about two populations by comparing measures of center and measures of variability for numerical data from random samples. 	
	<i>Score 2.5</i>	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>
Score 2.0	<p>Simpler goals:</p> <ul style="list-style-type: none"> ● Recognize and recall specific vocabulary, such as: <ul style="list-style-type: none"> ○ measures of center, range, mean, median, mode, measures of variability, data distribution. ● Find and use measures of center and measures of variability for numerical data from random samples. ● Measure the difference between the centers of two overlapping numerical data distributions by expressions the difference as a multiple of a measure of variability. 	
	<i>Score 1.5</i>	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
	<i>Score 0.5</i>	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
Score 0.0	Even with help, no success	