

Level	Basic	Proficient	Advanced
<b>Policy Level Descriptors</b>	Marginal academic performance, work approaching, but not yet reaching, satisfactory performance, indicating partial understanding and limited display of the knowledge and skills included in the Wyoming Content and Performance Standards.	Satisfactory academic performance indicating a solid understanding and display of the knowledge and skills included in the Wyoming Content and Performance Standards.	Superior academic performance indicating an in-depth understanding and exemplary display of the knowledge and skills included in the Wyoming Content and Performance Standards.
<b>Domain</b>	<b>Ratio and Proportional Relationships</b>		
<b>Range PLD: Cluster A -</b> Analyze proportional relationships and use them to solve real-world and mathematical problems.	Basic students compute unit rates associated with ratios of integers (7.RP.1);	Proficient students compute unit rates associated with ratios of like or unlike rational numbers (7.RP.1);	Advanced students compute unit rates associated with ratios of rational numbers including complex fractions (7.RP.1);
	Basic students determine whether two quantities are a proportional relationship (7.RP.2);	Proficient student determine whether two quantities are a proportional relationship in a table of values or graph (7.RP.2);	Advanced students determine whether two quantities are a proportional relationship in a verbal description or equation (7.RP.2);
	Basic students identify the constant of proportionality as a unit rate (7.RP.2);	Proficient student identify the constant of proportionality (unit rate) in graphs, tables, equations, and diagrams (7.RP.2);	Advanced students identify the constant of proportionality (unit rate) in verbal descriptions (7.RP.2);
		Proficient student create equations that represent proportional relationships (7.RP.2);	
	Basic students identify the $x$ - and $y$ -coordinates on a graph in a real-world context (7.RP.2);	Proficient student explain what a point $(x, y)$ on the graph of a proportional relationship means in terms of the situation it models (7.RP.2);	Advanced students identify the coordinates of another point which follows the proportional relationship and explain the reasoning;
	Basic students solve for an unknown value in proportional problems given the equation $a/b = c/d$ (7.RP.3).	Proficient student use proportional relationships to solve ratio and percent problems that require multi-steps (7.RP.3).	Advanced students use proportional relationships to solve ratio and percent problems that require multi-steps in a real-world context (7.RP.3).

Level	Basic	Proficient	Advanced
<b>Domain</b>	<b>The Number System</b>		
<b>Range PLD: Cluster B -</b> Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Basic students add and subtract two integers (7.NS.1);	Proficient student add and subtract up to three rational numbers (7.NS.1);	Advanced students add and subtract four or more rational numbers and justify the sum or difference of rational numbers using properties of addition and subtraction, numbers, and number lines (7.NS.1);
	Basic students multiply and divide two integers (7.NS.2);	Proficient student multiply and divide up to three rational numbers (7.NS.2);	Advanced students multiply and divide four or more rational numbers and justify the product or quotient of rational numbers using properties of multiplication and division, numbers, and number lines (7.NS.2);
	Basic students identify a rational number as a quotient of integers given the divisor is not zero (7.NS.2);	Proficient student convert a fraction into a terminating or repeating decimal and a terminating decimal into a fraction using long division (7.NS.2);	Advanced students convert a repeating decimal into a fraction (7.NS.2);
	Basic students solve mathematical problems involving at least two of the operations with integers (7.NS.3).	Proficient student solve mathematical and real-world problems involving at least two of the operations with rational numbers (7.NS.3).	Advanced students solve mathematical and real-world problems involving three or more of the operations, including complex fractions (7.NS.3).

Level	Basic	Proficient	Advanced
<b>Domain</b>	<b>Expressions and Equations</b>		
<b>Range PLD: Cluster C -</b> Use properties of operations to generate equivalent expressions.	Basic students generate equivalent expressions by adding and subtracting integers (7.EE.1);	Proficient students generate equivalent expressions by adding, subtracting, multiplying, and factoring with at least one rational coefficient (7.EE.1);	Advanced students generate equivalent expressions by adding, subtracting, multiplying, and factoring with multiple rational coefficients (7.EE.1);
	Basic students rewrite in different forms, using one operation, an expression in a mathematical context (7.EE.2).	Proficient students rewrite, using two or more operations, an expression in different forms from a contextual problem (7.EE.2).	Advanced students interpret the relationships between expressions (7.EE.2).
<b>Range PLD: Cluster D -</b> Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	Basic students solve two-step mathematical problems consisting of integers (7.EE.3);	Proficient students solve multi-step real-world and mathematical problems consisting of positive and negative rational numbers given in any form (7.EE.3);	
		Proficient students approximate answers to real-world and mathematical problems by estimation (7.EE.3);	Advanced students assess the reasonableness of answers to real-world and mathematical problems by estimation (7.EE.3);
	Basic students solve one-step mathematical problems leading to equations involving integers and two-step mathematical problems leading to equations involving whole numbers (7.EE.4);	Proficient students solve two-step real-world and mathematical problems leading to equations involving rational numbers (7.EE.4);	Advanced students solve real-world and mathematical problems leading to equations involving rational numbers, and use the solution to answer additional questions (7.EE.4);
	Basic students solve one-step and two-step mathematical problems leading to inequalities involving whole numbers (7.EE.4).	Proficient students solve two-step real-world and mathematical problems leading to inequalities involving rational numbers (7.EE.4);	Advanced students solve two-step real-world and mathematical problems leading to inequalities involving rational numbers and use the solution to answer additional questions (7.EE.4).
		Proficient students graph the solution set of an inequality and interpret the meaning of the graph with respect to the problem (7.EE.4).	

Level	Basic	Proficient	Advanced
<b>Domain</b>	<b>Geometry</b>		
<b>Range PLD: Cluster E -</b> Draw, construct, and describe geometrical figures and describe the relationships between them.	Basic students compute a single dimension from a scale drawing given an integer scale factor (7.G.1);	Proficient students compute actual lengths from scale drawings and verbal descriptions (7.G.1);	Advanced students identify and <b>reproduce</b> scale drawing(s) at different scales with respect to the dimensions of the actual figure (7.G.1);
	Basic students identify the type of triangle with respect to angle measures and side measures (7.G.2);	Proficient students determine if the three measures of angles or sides meets the condition of a unique triangle, more than one triangle, or no triangle (7.G.2);	
	Basic students determine which two-dimensional figure (cross-section) results from slicing right rectangular prisms given a figure with the cross-section shown (7.G.3).	Proficient students determine which two-dimensional figure (cross-section) results from slicing right rectangular prisms or right rectangular pyramids given a verbal description (7.G.3).	<b>Advanced students determine which two-dimensional figure (cross-section) results from slicing cylinders, cones, or spheres.</b>
<b>Range PLD: Cluster F -</b> Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	Basic students identify expressions that represents the area and circumference of a circle given the dimensions (7.G.4);	Proficient students calculate the area and circumference of a circle (7.G.4);	Advanced students solve for a component part (radius or diameter) given the circumference of a circle (7.G.4);
	Basic students understand the relationship between a pair of supplementary, complementary, or vertical angles (7.G.5);	Proficient students solve equations with two-steps for an unknown angle in a pair of complementary, supplementary, or vertical angles (7.G.5);	Advanced students solve equations with three or more steps for an unknown angle in a pair of complementary, supplementary, or vertical angles (7.G.5);
	Basic students solve real-world and mathematical problems involving the area of a polygon composed of two figures consisting of triangles and rectangles (7.G.6);	Proficient students solve real-world and mathematical problems involving the area of a polygon composed of no more than three figures consisting of triangles and quadrilaterals (7.G.6);	Advanced students solve real-world and mathematical problems involving the area of a figure composed of polygons (7.G.6);
	Basic students solve real-world and mathematical problems involving the volume of a right prism given the area of the base and the height (7.G.6);	Proficient students solve real-world and mathematical problems involving the volume of a solid composed of two right prisms (7.G.6);	Advanced students solve real-world and mathematical problems involving the volume of a solid composed of three or more right prisms (7.G.6);
	Basic students determine the surface area of a right rectangular prism (7.G.6).	Proficient students solve real-world and mathematical problems involving the surface area of a right prism (7.G.6).	Advanced students solve real-world and mathematical problems involving the surface area of a solid composed of right prisms (7.G.6).

Level	Basic	Proficient	Advanced
<b>Domain</b>	<b>Statistics and Probability</b>		
<b>Range PLD: Cluster G -</b> Use random sampling to draw inferences about a population.	Basic students identify a statistical question that can be used to sample a population.	Proficient students identify the characteristics of valid random samples and how they produce representative samples and valid inferences about a population (7.SP.1);	Advanced students examine the validity of inferences about a population (7.SP.2);
		Proficient students use data from a random sample to draw generalizations and inferences about a population (7.SP.2).	Advanced students compare multiple random samples of the same size from a population to analyze the variations in the population (7.SP.2).
<b>Range PLD: Cluster H -</b> Draw informal comparative inferences about two populations.	Basic students compare the measures of center of two data sets (7.SP.4).	Proficient students compare two populations with respect to the measures of center and measures of variability (7.SP.4).	Advanced students draw inferences about two populations with respect to the measures of center and measures of variability (7.SP.3, 4).
<b>Range PLD: Cluster I -</b> Investigate chance processes and develop, use, and evaluate probability models.	Basic students describe the probability of a chance event as a number between 0 and 1 (7.SP.5);	Proficient students identify a chance event as an unlikely event, an event that is neither unlikely nor likely, or a likely event given the probability of the chance event as a number between 0 and 1 (7.SP.5);	Advanced students explain the relationships between probability and collected data, including simulations (7.SP.5, 6);
	Basic students determine probabilities of simple probability models (7.SP.7);	Proficient students approximate the probability of an event from collected data (7.SP.7);	Advanced students determine the probability of multiple-event probability models (7.SP.7);
	Basic students determine the sample space from two compound events using lists, tables, and tree diagrams (7.SP.8).	Proficient students determine the probability of compound events consisting of two simple events (7.SP.8).	Advanced students determine the probability of compound events consisting of more than two simple events (7.SP.8).