Name	8th Grade Math Oklahoma Academic Standards for Mathematics	Transition Support		PARCC MCF
		N (New) E (Expanded) M (Moving)	Transition Details	M (Major), S(Supporting A(Additional)
8.G.09	CC.8.G.9 Solve real-world and mathematical problems involving volume of cylinders, cones and spheres. Know the formulas for the volume of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	E	OK.8.4.1	A
8.EE.01	CC.8.EE.1 Work with radicals and integer exponents. Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, 3^2 × 3^(–5) = 3^(–3) = 1/(3^3) = 1/27.	E	OK.8.2.2.a	M
8.EE.02	CC.8.EE.2 Work with radicals and integer exponents. Use square root and cube root symbols to represent solutions to equations of the form x^2 = p and x^3 = p, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.	N	OK.7.2.1.b	M
8.EE.03	CC.8.EE.3 Work with radicals and integer exponents. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3 × 10^8 and the population of the world as 7 × 10^9, and determine that the world population is more than 20 times	E	OK.8.2.1, OK.4	M
8.EE.04	CC.8.EE.04 Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of apporopriate size for measurements of very larage or very small quantities(e.g., use millimeters per year for seafloor spreading). Interpret scientifific notation that has been generated by technology.		OK.4.4.1.c	M
8.EE.05	CC.8.EE.5 Understand the connections between proportional relationships, lines, and linear equations. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.	E	OK.8.1.1.c	M
8.EE.06	CC.8.EE.6 Understand the connections between proportional relationships, lines, and linear equations. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y =mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b. 8.C.1.1 Base reasoning on the principle that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane. Content Scope: Knowledge and skills articulated in 8.EE.6	N	OK.7.1.1, OK.8.1.1.c	M
8.EE.07	CC.8.EE.7 Analyze and solve linear equations and pairs of simultaneous linear equations. Solve linear equations in one variable. Solve word problems leading to linear equations in one variable whose solutions require expanding expressions using the distributive property and collecting like terms. (EOY)	E	OK.8.1.1.a	M

8.EE.07a	CC.8.EE.7a Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form x = a, a = a, or a = b results (where a and b are different numbers). 8.C.2 Given an equation or system of equations, present the solution steps as a logical argument that concludes with the set of solutions (if any). Content Scope: Knowledge and skills articulated in 8.EE.7a, 8.EE.7b, 8.EE.8b	E	OK.8.1.1.a, OK.8.1.1.b	M
8.EE.07b	CC.8.EE.7b Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	E	OK.8.1.1.a	M
8.EE.08	CC.8.EE.8 Analyze and solve linear equations and pairs of simultaneous linear equations. Analyze and solve pairs of simultaneous linear equations.	M	OK.A.2.4	M
8.EE.08a	CC.8.EE.8a Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.	M	OK.A.2.4	M
8.EE.08b	CC.8.EE.8b Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.	M	OK.A.2.4	M
8.EE.08b-1	CC.8.EE.8b-1 Solve systems of two linear equations in two variables algebraically.	E	OK.A.2.4	M
8.EE.08b-2	CC.8.EE.8b-2 Estimate solutions of linear systems by graphing the equations.	E	OK.A.2.4	M
8.EE.08b-3	CC.8.EE.8b-3 Solve simple cases of linear systems by inspection. For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.	E	OK.A.2.4	M
8.F.01	CC.8.F.1 Define, evaluate, and compare functions. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. (Function notation is not required in Grade 8.)	N	OK.6.1.1, OK.7.1.1	M
8.F.01-2	CC.8.F.1-2 Define, evaluate, and compare functions. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. (Function notation is not required in Grade 8.)	N	OK.6.1.1, OK.7.1.1	M
8.F.03	CC.8.F.3 Define, evaluate, and compare functions. Interpret the equation y = mx + b as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function A = s^2 giving the area of a square as a function of its side length is not linear because its graph	E	OK.7.1.1, OK.8.1.1.a, OK.8.1.1.c	M

8.F.03-1	CC.8.F.3-1 Define, evaluate, and compare functions. Interpret the equation y = mx + b as defining a linear function, whose graph is a straight line;	E	OK.7.1.1, OK.8.1.1.a, OK.8.1.1.c	M
8.F.03-2	CC.8.F.3-2 Define, evaluate, and compare functions. Give examples of functions that are not linear. For example, the function A = s^2 giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line. 8.C.3.1 Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. Content Scope: Knowledge and skills articulated in 8.F.3-2	E	OK.7.1.1, OK.8.1.1.a, OK.8.1.1.c	M
8.F.5-1	CC.8.F.5-1 Use functions to model relationships between quantities. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the	N		M
8.F.5-2	CC.8.F.5-2 Use functions to model relationships between quantities. Sketch a graph that exhibits the qualitative features of a function that has been described verbally.	N		M
8.G.03	CC.8.G.3 Understand congruence and similarity using physical models, transparencies, or geometry software. Describe the effect of dilations, translations, rotations and reflections on two-dimensional figures using coordinates.	N	OK.7.3.3	M
8.G.04	CC.8.G.4 Understand congruence and similarity using physical models, transparencies, or geometry software. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. 8.C.3.2 Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. Content Scope: Knowledge and skills articulated in 8.G.2, 8.G.4 8.C.5.3 Apply geometric reasoning in a coordinate setting,	N	OK.6.3.2	M
8.G.05	CC.8.G.5 Understand congruence and similarity using physical models, transparencies, or geometry software. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for	N	OK.7.3.2	M
8.G.1	CC.8.G.1 Understand congruence and similarity using physical models, transparencies, or geometry software. Verify experimentally the properties of rotations, reflections, and translations: 8.C.6 Apply geometric reasoning in a coordinate setting, and/or use coordinates to draw geometric conclusions. Content Scope: Knowledge and skills articulated in 8.G.B	N	OK.7.3.3	M
8.G.1a	CC.8.G.1a Lines are taken to lines, and line segments to line segments of the same length.	N	OK.7.3.3	M
8.G.1b	CC.8.G.1b Angles are taken to angles of the same measure.	N	OK.7.3.3	M

8.G.1c	CC.8.G.1c Parallel lines are taken to parallel lines.	N	OK.7.3.3	M
8.G.2	CC.8.G.2 Understand congruence and similarity using physical models, transparencies, or geometry software. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. 8.C.3.2 Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	N	OK.6.3.2	M
8.G.2.4	CC.8.G.2.4 Understand that a two dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, dilations: given two similar two dimensional figures, describe a sequence that exhibits the similarity between them.	E	OK.8.4.2	M
8EE.04-1	CC.8EE.04-01 Work with radicals and integer exponents. Perform operations with numbers expressed in scientific notation, including problems where decimal and scientific notation are used.	E	OK.8.2.2b	M
8EE.04-2	CC.8EE.04-02 Work with radicials and integer exponents Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.	E	OK.8.2.2b	M
8EE.05-1	CC.8.EE.5-01 Understand the connections between proportional relationships, lines, and linear equations. Graph proportional relationships, interpreting the unit rate as the slope of the graph.		OK.A.2.2.c.3	M
8EE.05-2	CC.8.EE.5-02 Understand the connections between proportional relationships, lines, and linear equations. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.		OK.A.2.2.c.3	M
8.NS.01	CC.8.NS.1. Know that there are numbers that are not rational, and approximate them by rational numbers. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually,	N	OK.7.2.1.a	S
8.NS.02	CC.8.NS.2 Know that there are numbers that are not rational, and approximate them by rational numbers. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). For example, by truncating the decimal expansion of √2 (square root of 2), show that √2 is between 1 and 2, then between 1.4	N	OK.7.2.1.b	S