

First Nine Weeks

Week(s)	Topics & Objectives	Standards
1	1st HOUR - Integers and Decimals {Absolute Value, Opposites, and Number Line} Integers {Operations and Sign Rules} Decimals {Add/Subtract} 2nd HOUR - Define, draw, identify, and apply symbols {points, lines, planes, segments, rays} Pairs of Angles {complementary, supplementary, vertical, and linear} - know and solve problems	
2	1st HOUR - Decimals {Add/Subtract} Order of Operations including exponents 2nd HOUR - Pairs of Angles {complementary, supplementary, vertical, and linear} - know and solve problems Parallel lines, transversals, and the angles formed {alternate interior, alternate exterior, corresponding, same-side(consecutive) interior} - know and solve problems	8.G.5 Use informal arguments to establish facts about the angle sum and exterior angles of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.
3	1st HOUR - Integers and Decimals {Absolute Value, Opposites, and Number Line} Integers {Operations and Sign Rules} Decimals {Add/Subtract} Order of Operations	8.G.5 Use informal arguments to establish facts about the angle sum and exterior angles of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.

	<p>including exponents</p> <p>2nd HOUR - Pairs of Angles {complementary, supplementary, vertical, and linear} - know and solve problems</p> <p>Parallel lines, transversals, and the angles formed {alternate interior, alternate exterior, corresponding, same-side(consecutive) interior} - know and solve problems</p>	
	TEST	Know that there are numbers that are not rational, and approximate them by rational numbers.
4	<p>1st HOUR - Decimals {Multiply} Fraction to Decimal Conversions</p> <p>2nd HOUR - Pairs of Angles {complementary, supplementary, vertical, and linear} - know and solve problems</p> <p>Parallel lines, transversals, and the angles formed {alternate interior, alternate exterior, corresponding, same-side(consecutive) interior} - know and solve problems</p>	<p>8.NS.1 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, and convert a decimal expansion which repeats eventually into a rational number.</p> <p>8.G.5 Use informal arguments to establish facts about the angle sum and exterior angles of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.</p>
5	<p>1st HOUR - Decimals {Divide} Simplified Algebraic Expressions {Combine Like Terms}</p> <p>Order of Operations including exponents</p> <p>2nd HOUR - Pairs of Angles {complementary, supplementary, vertical, and linear} - know and solve problems</p> <p>Parallel lines, transversals, and the angles formed {alternate interior,</p>	<p>8.G.5 Use informal arguments to establish facts about the angle sum and exterior angles of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.</p>

	alternate exterior, corresponding, same-side(consecutive) interior} - know and solve problems	
6	1st HOUR - Exponents Square and Cube Roots Estimating the Value of Square/Cube Roots Rational and Irrational Numbers 2nd HOUR - Triangles - Classify the triangles, Interior angle sum, remote exterior angle	8.NS.1 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, and convert a decimal expansion which repeats eventually into a rational number. 8.NS.2 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). 8.EE.2 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 $\sqrt{2}$ is irrational. 8.G.5 Use informal arguments to establish facts about the angle sum and exterior angles of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.
7	1st HOUR - Powers of 10 Properties of Integer Exponents 2nd HOUR - Polygons - interior angle sums Pythagorean Theorem - find the missing side of right triangles	8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. 8.EE.3 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. 8.G.5 Use informal arguments to establish facts about the angle sum and exterior angles of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. 8.G.6 Explain a proof of the Pythagorean Theorem and its converse. 8.G.7 Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real world and mathematical problems in two and three dimensions. 8.EE.2 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 $\sqrt{2}$ is irrational.
8	1st HOUR - Properties of Integer Exponents 2nd HOUR - Pythagorean Theorem - find the missing side of right triangles	8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. 8.G.6 Explain a proof of the Pythagorean Theorem and its converse. 8.G.7 Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real world and mathematical problems in two and three dimensions. 8.EE.2 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 $\sqrt{2}$ is irrational.
9	1st HOUR - Properties of Integer Exponents 2nd HOUR - Pythagorean Theorem - find the missing side of right triangles	8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. 8.G.6 Explain a proof of the Pythagorean Theorem and its converse. 8.G.7 Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real world and mathematical problems in two and three dimensions. 8.EE.2 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 $\sqrt{2}$ is irrational.
	EXAMS	
Second Nine Weeks		
Week(s)	Topics & Objectives	Standards
10	1st HOUR - Properties of Integer Exponents 2nd HOUR - Pythagorean Theorem and/or Distance Formula on the coordinate plane	8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. 8.G.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. 8.EE.2 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 $\sqrt{2}$ is irrational.
11	1st HOUR - Powers of 10 Converting between Standard Notation and Scientific Notation {Multiply/Divide} 2nd HOUR - Pythagorean Theorem and/or Distance Formula on the coordinate plane	8.EE.3 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. 8.EE.4 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 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. 8.G.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. 8.EE.2 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 $\sqrt{2}$ is irrational.
12	1st HOUR - Scientific Notation {Operations} 2nd HOUR - Pythagorean Theorem and/or Distance Formula on the coordinate plane	8.EE.4 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 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. 8.G.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. 8.EE.2 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 $\sqrt{2}$ is irrational.
	TEST	

<p style="text-align: center;">13</p>	<p>1st HOUR - Review of Integer Exponents, Scientific Notation, Square Roots, Cube Roots, Rational Numbers and Irrational Numbers (Ready Instructional Books)</p> <p>2nd HOUR - Transformations {translations, reflections, rotations} and Congruency (label corresponding parts)</p>	<p>8.NS.1 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, and convert a decimal expansion which repeats eventually into a rational number.</p> <p>8.NS.2 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).</p> <p>8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions.</p> <p>8.EE.2 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 $\sqrt{2}$ is irrational.</p> <p>8.EE.3 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.</p> <p>8.EE.4 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 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.</p> <p>8.G.1 Verify experimentally the properties of rotations, reflections, and translations</p> <p>8.G.1a Lines are taken to lines, and line segments to line segments of the same length</p> <p>8.G.1b Angles are taken to angles of the same measure</p> <p>8.G.1c Parallel lines are taken to parallel lines</p> <p>8.G.2 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 the sequence that exhibits the congruence between them</p> <p>8.G.3 Describe the effect of translations, rotations, and reflections on two-dimensional figures using coordinates</p>
<p style="text-align: center;">14</p>	<p>1st HOUR - Solved Linear Equations in One Variable{Operations , Properties of Equality, Algebra Tiles, and Rational Coefficients}</p> <p>2nd HOUR - Transformations {translations, reflections, rotations} and Congruency (label corresponding parts)</p>	<p>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).</p> <p>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.</p> <p>8.G.1 Verify experimentally the properties of rotations, reflections, and translations</p> <p>8.G.1a Lines are taken to lines, and line segments to line segments of the same length</p> <p>8.G.1b Angles are taken to angles of the same measure</p> <p>8.G.1c Parallel lines are taken to parallel lines</p> <p>8.G.2 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 the sequence that exhibits the congruence between them</p> <p>8.G.3 Describe the effect of translations, rotations, and reflections on two-dimensional figures using coordinates</p>

15	<p>1st HOUR - Solved Linear Equations in One Variable {Two-Step Equations, Properties of Equality, and Distributive Property}</p> <p>2nd HOUR - Transformations {translations, reflections, rotations} and Congruency (label corresponding parts)</p>	<p>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).</p> <p>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.</p> <p>8.G.1 Verify experimentally the properties of rotations, reflections, and translations</p> <p>8.G.1a Lines are taken to lines, and line segments to line segments of the same length</p> <p>8.G.1b Angles are taken to angles of the same measure</p> <p>8.G.1c Parallel lines are taken to parallel lines</p> <p>8.G.2 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 the sequence that exhibits the congruence between them</p> <p>8.G.3 Describe the effect of translations, rotations, and reflections on two-dimensional figures using coordinates</p>
		Work with radicals and integer exponents
16	<p>1st HOUR - Solved Linear Equations in One Variable {Like Terms, Multi-Step Equations, Properties of Equality, and Variables on Both Sides}</p> <p>2nd HOUR - Transformations {translations, reflections, rotations} and Congruency (label corresponding parts)</p>	<p>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).</p> <p>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.</p> <p>8.G.1 Verify experimentally the properties of rotations, reflections, and translations</p> <p>8.G.1a Lines are taken to lines, and line segments to line segments of the same length</p> <p>8.G.1b Angles are taken to angles of the same measure</p> <p>8.G.1c Parallel lines are taken to parallel lines</p> <p>8.G.2 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 the sequence that exhibits the congruence between them</p> <p>8.G.3 Describe the effect of translations, rotations, and reflections on two-dimensional figures using coordinates</p>
17	<p>1st HOUR - Solved Linear Equations in One Variable {Variables on Both Sides, Distributive Property, Properties of Equality, and Multi-Step Equations with One Solution}</p> <p>2nd HOUR - Transformations {translations, reflections,</p>	<p>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).</p> <p>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.</p> <p>8.G.1 Verify experimentally the properties of rotations, reflections, and translations</p> <p>8.G.1a Lines are taken to lines, and line segments to line segments of the same length</p>

	rotations} and Congruency (label corresponding parts)	<p>8.G.1b Angles are taken to angles of the same measure</p> <p>8.G.1c Parallel lines are taken to parallel lines</p> <p>8.G.2 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 the sequence that exhibits the congruence between them</p> <p>8.G.3 Describe the effect of translations, rotations, and reflections on two-dimensional figures using coordinates</p>
18	<p>1st HOUR - Solved Linear Equations in One Variable {Multi-Step Equations with One Solution, No Solution, or All Real Numbers}</p> <p>2nd HOUR - Transformations {translations, reflections, rotations} and Congruency (label corresponding parts)</p>	<p>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).</p> <p>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.</p> <p>8.G.1 Verify experimentally the properties of rotations, reflections, and translations</p> <p>8.G.1a Lines are taken to lines, and line segments to line segments of the same length</p> <p>8.G.1b Angles are taken to angles of the same measure</p> <p>8.G.1c Parallel lines are taken to parallel lines</p> <p>8.G.2 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 the sequence that exhibits the congruence between them</p> <p>8.G.3 Describe the effect of translations, rotations, and reflections on two-dimensional figures using coordinates</p>