

Domain	Standard	Learning Targets	Resources
Ratios and Proportional Relationships	7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.	Write ratios in simplest form Write a rate as a unit rate Compare unit rates	Big Ideas: 5.1 Ratios and Rates IXL: G14, J1, J5, M3, M4
	7.RP.2 Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.	Determine if ratios form a proportion Determine whether two quantities are proportional based on a chart, graph, or situation Use a table to write proportions Use mental math, multiplication property of equality, and cross products to solve proportions Find slope given a graph, table, or two points Interpret slope Identify direct variation given a table, graph or equation Find the constant of proportionality	Big Ideas: 5.2 Proportions 5.2extension Graphing Proportional Relationships 5.3 Writing Proportions 5.4 Solving Proportions 5.5 Slope 5.6 Direct Variation IXL: J2, J4, J8, J9, J11, K1, K2, K3, K4, K5, K6, K7, K8,
	7.RP.3 Use proportional relationships to solve multistep ratio and percent problems.	Use the percent proportion or the percent equation to find the percent, the part or the whole amount in given situations Find a new amount if given a percent increase or decrease Find the percent of increase or decrease when given the new and old amounts Find original price, percent of discount, discount amount or sale price Find cost to store, percent of markup, markup amount or selling price Use the simple interest formula to find interest, principal, interest rate, time or balance	Big Ideas: 5.1 Ratios and Rates 5.3 Writing Proportions 6.3 The Percent Proportions 6.4 The Percent Equation 6.5 Percent of Increase and Decrease 6.6 Discounts and Markups 6.7 Simple Interest IXL: J12, L4, L5, L6, L7, L8, L9, L10, M4, M5, M6, M7, M8, M9, M10, M11, M12, DD3
The Number System	7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make 0.	Find absolute value of and integer Compare and order integers and absolute values Add and subtract integers and rational numbers	Big Ideas: 1.1 Integers and Absolute Value 1.2 Adding Integers

	<p>b. Understand $p + q$ as the number located a distance q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.</p> <p>c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.</p> <p>d. Apply properties of operations as strategies to add and subtract rational numbers.</p>	<p>Evaluate expressions involving addition and subtraction of integers and rational numbers</p>	<p>1.3 Subtracting Integers 2.2 Adding Rational Numbers 2.3 Subtracting Rational Numbers</p> <p><u>IXL:</u> B1, B2, B4, B6, C1, C3, C4, C5, D3, E1, G1, G3, H3, H6, H7, R9</p>
	<p>7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <p>a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.</p> <p>b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.</p> <p>c. Apply properties of operations as strategies to multiply and divide rational numbers.</p> <p>d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.</p>	<p>Find absolute value of and integer Compare and order integers and absolute values Write rational numbers in fraction or decimal form Compare and order rational numbers Multiply and divide integers and rational numbers Evaluate expressions involving multiplication and division of integers and rational numbers</p>	<p><u>Big Ideas:</u> 1.1 Integers and Absolute Value 1.4 Multiplying Integers 1.5 Dividing Integers 2.1 Rational Numbers 2.4 Multiplying and Dividing Rational Numbers</p> <p><u>IXL:</u> A3, A4, A10, C6, C7, C8, E3, E5, E6, F1, G7, G9, G10, G12, G13, G14, H1, H8, H9, R9</p>
	<p>7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.</p>	<p>Solve problems involving adding, subtracting, multiplying and dividing rational numbers</p>	<p><u>Big Ideas:</u> 1.1 Integers and Absolute Value 1.2 Adding Integers 1.3 Subtracting Integers 1.4 Multiplying Integers 1.5 Dividing Integers 2.2 Adding Rational Numbers 2.3 Subtracting Rational Numbers</p>

			<p>2.4 Multiplying and Dividing Rational Numbers</p> <p><u>IXL:</u> C3, C4, C5, C6, C7, C8, E1, E2, E3, E4, E5, E6, E8, G1, G2, G3, G4, G5, G7, G9, G10, G11, G12, G13, G14, G16, H6, H8, M1, M2</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>Classify real numbers (irrational, rational, integer, whole, natural) Approximate square roots to the nearest integer and to the nearest tenth Compare real numbers Approximate the value of an expression Write repeating decimals in fraction form</p>	<p><u>Big Ideas:</u> 14.4 Approximating Square Roots Extension 14.4 Repeating Decimals</p> <p><u>IXL (8):</u> D4, D5</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 the expression.</p>	<p>Classify real numbers (irrational, rational, integer, whole, natural) Approximate square roots to the nearest integer and to the nearest tenth Compare real numbers Approximate the value of an expression</p>	<p><u>Big Ideas:</u> 14.4 Approximating Square Roots</p> <p><u>IXL (8):</u> F16, F21</p>
Expressions and Equations	<p>7.EE.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.</p>	<p>Identify terms and like terms Simplify expressions by distributing and/or combining like terms Factor out the GCF, the coefficient of the variable or a given value</p>	<p><u>Big Ideas:</u> 3.1 Algebraic Expressions 3.2 Adding and Subtracting Linear Expressions 3.2extension Factoring Expressions</p> <p><u>IXL:</u> R9, R10, R12, R13, R14, R15, R16</p>
	<p>7.EE.2 Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related</p>	<p>Identify terms and like terms Simplify expressions by distributing and/or combining like terms</p>	<p><u>Big Ideas:</u> 3.1 Algebraic Expressions 3.2 Adding and Subtracting Linear Expressions</p>

	<p>7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p>	<p>Write rational numbers in equivalent forms (fractions, decimals, and percents) Compare fractions, decimals and percents Use the percent equation to find the percent, the part , or the whole amount</p>	<p><u>Big Ideas:</u> 6.1 Percents and Decimals 6.2 Comparing and Ordering Fractions, Decimals and Percents 6.4 The Percent Equation</p> <p><u>IXL:</u> A8, A9, C9, D4, E7, E9, E10, E11, F2, F3, F6, F7, F8, F9, F10, G6, G15, G17, G18, H1, I8, J6, L2, L3, M4, M5, N1, N2, N3, N4, N5, N6, S9</p>
	<p>7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities</p> <p>a. 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. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.</p> <p>b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.</p>	<p>Solve one- and two-step equations using addition, subtraction, multiplication, or division properties of equality. Solve one- and two-step inequalities using addition, subtraction, multiplication, or division properties of inequality. Write an equation or inequality when given a graph or word sentence Graph an inequality on a number line Tell whether a given value is a solution to an equation or inequality</p>	<p><u>Big Ideas:</u> 3.3 Solving Equations Using Addition or Subtraction 3.4 Solving Equations Using Multiplication or Division 3.5 Solving Two-Step Equations 4.1 Writing and Graphing Inequalities 4.2 Solving Inequalities using Addition or Subtraction 4.3 Solving Equations Using Multiplication or Division 4.4 Solving Two-Step Inequalities</p> <p><u>IXL:</u> J11, R11, S3, S5, S6, S7, S8, S9, T1, T2, T3, T4, T5, T6, T7, U4</p>
	<p>8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions.</p>	<p>Write expressions using exponents Evaluate expressions using exponents and the order of operations Multiply powers with the same base Find a power of a power Find a power of a product Divide powers with the same base</p>	<p><u>Big Ideas:</u> 16.1 Exponents 16.2 Product of Powers Property 16.3 Quotient of Powers Property 16.4 Zero and Negative</p>

		Evaluate expressions involving zero and negative exponents Simplify expressions involving exponents	Exponents <u>IXL (8):</u> F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, F13, BB6, BB7, BB8, BB9
	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.	Find square roots (positive and negative) of perfect squares Evaluate expressions involving square roots Find cube roots Evaluate expressions involving cube roots Find the length of the hypotenuse Find the length of the legs of a right triangle Use the Pythagorean theorem to find missing measures Classify real numbers (irrational, rational, integer, whole, natural) Approximate square roots to the nearest integer and to the nearest tenth Compare real numbers Approximate the value of an expression Use the converse of the Pythagorean theorem to determine if a triangle is a right triangle Use the distance formula to find the distance between two points on the coordinate plane	<u>Big Ideas:</u> 14.1 Finding Square Roots 14.2 Finding Cube Roots 14.3 The Pythagorean Theorem 14.4 Approximating Square Roots 14.5 Using the Pythagorean Theorem <u>IXL (8):</u> D5, F14, F15, F17, F19, F20, V7
	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 on is than the other.	Identify numbers written in scientific notation Write numbers in standard form when given scientific notation Compare numbers written in scientific notation Write large and small numbers in scientific notation when given the standard form Order numbers written in scientific notation Add and subtract numbers written in scientific notation Multiply and divide numbers written in scientific notation	<u>Big Ideas:</u> 16.5 Reading Scientific Notation 16.6 Writing Scientific Notation 16.7 Operations in Scientific Notation <u>IXL (8):</u> G1, G2
	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	Identify numbers written in scientific notation Write numbers in standard form when given scientific notation Compare numbers written in scientific notation	<u>Big Ideas:</u> 16.5 Reading Scientific Notation 16.6 Writing Scientific

	<p>quantities. Interpret scientific notation that has been generated by technology.</p>	<p>Write large and small numbers in scientific notation when given the standard form Order numbers written in scientific notation Add and subtract numbers written in scientific notation Multiply and divide numbers written in scientific notation</p>	<p>Notation 16.7 Operations in Scientific Notation <u>IXL (8):</u> G1, G3, G4</p>
	<p>8.EE.5 Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.</p>	<p>Use a t-table to find solutions to a linear equation Solve an equation for y Identify and graph proportional relationships Write and use a direct variation equation Compare proportional relationships Interpret the slope of a proportional relationship</p>	<p><u>Big Ideas:</u> 13.1 Graphing Linear Equations 13.3 Graphing Proportional Relationships <u>IXL (8):</u> I7</p>
	<p>8.EE.6 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 $y = mx + b$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.</p>	<p>Find the slope of a line from a graph and from a table Identify parallel and perpendicular line based on the slope Identify and graph proportional relationships Write and use a direct variation equation Compare proportional relationships Interpret the slope of a proportional relationship Identify slope and y-intercept Graph linear equations in slope-intercept form Interpret slope and y-intercept Identify x-intercept Graph a linear equation in standard form by writing it in slope-intercept form Graph a linear equation using x-intercept and y-intercept Use a graph to write an equation in slope-intercept form Write an equation of a line that passes through two given points Use point-slope form to write an equation using a point and a slope Use point-slope form to write an equation using two points</p>	<p><u>Big Ideas:</u> 13.2 Slope of a Line 13.2 extension Slopes of Parallel and Perpendicular Lines 13.3 Graphing Proportional Relationships 13.4 Graphing Linear Equations in Slope-Intercept Form 13.5 Graphing Linear Equations in Standard Form 13.6 Writing Equations in Slope-Intercept Form 13.7 Writing Equations in Point-Slope Form <u>IXL (8):</u> Y1, Y2, Y4, Y5, Y6, Y8</p>

	<p>8.EE.7 Solve linear equations in one variable.</p> <p>a. 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 solutions).</p> <p>b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms</p>	<p>Solve multi-step equations (may need to distribute or combine like terms)</p> <p>Solve equations that have variables on both sides of the equal sign</p> <p>Solve equations that have no solution or that have infinite solutions</p>	<p>Big Ideas: Topic 1 Solving Multi-Step Equations Topic 2 Solving Equations with Variables on Both Sides</p> <p>IXL (8): F18, W3, W4, W6, W7, W8, W9, W10, W11, W12, W13, W14, W15</p>
<p>Geometry</p>	<p>7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>	<p>Use scale to find actual or model dimensions</p> <p>Find scale and scale factor</p> <p>Find actual perimeter or area if given scale of drawing/figure</p>	<p>Big Ideas: 7.5 Scale Drawings</p> <p>IXL: J7, X9, X10, X11, X12, X13, AA9</p>
	<p>7.G.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.</p>	<p>Classify triangles and quadrilaterals</p> <p>Understand and create constructions of triangles</p> <p>Use the quadrilateral angle sum to find angle measures of quadrilaterals</p> <p>Understand and create constructions of quadrilaterals</p>	<p>Big Ideas: 7.3 Triangles 7.4 Quadrilaterals</p> <p>IXL:</p>
	<p>7.G.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.</p>	<p>Describe the intersection of a plane and a solid</p>	<p>Big Ideas: 9.5extension Cross Sections of Three-Dimensional Figures</p> <p>IXL: Z1, Z3, Z4</p>
	<p>7.G.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p>	<p>Find radius, diameter, and circumference of a circle (exact and estimate)</p> <p>Find perimeter of a semicircle</p> <p>Estimate perimeter and area using grid paper</p> <p>Find perimeter of a composite figure (exact and estimate)</p> <p>Find areas of circles, semicircles and composite figures (exact and estimated)</p> <p>Find surface area and lateral surface area of cylinders (exact and estimated)</p>	<p>Big Ideas: 8.1 Circles and Circumference 8.2 Perimeter of Composite Figures 8.3 Areas of Circles 9.3 Surface Areas of Cylinders</p>

		<u>IXL:</u> W16, AA5, AA6,
7.G.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	Name adjacent and vertical angles Classify complementary and supplementary angles Use angle relationships to find missing measures Use the triangle angle sum to find angle measures of triangles	<u>Big Ideas:</u> 7.1 Adjacent and Vertical Angles 7.2 Complementary and Supplementary Angles 7.3 extension Angle Measures of Triangles <u>IXL:</u> W12, W13
7.G.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	Estimate area using grid paper Find areas of composite figures (exact and estimated) Find surface areas of prisms, regular pyramids and composite solids involving each Find volumes of prisms, pyramids and composite solids involving each	<u>Big Ideas:</u> 8.4 Areas of Composite Figures 9.1 Surface Areas of Prisms 9.2 Surface Areas of Pyramids 9.4 Volumes of Prisms 9.5 Volumes of Pyramids <u>IXL:</u> Z2, AA2, AA3, AA4, AA7, AA8, AA12, AA13
8.G.1 Verify experimentally the properties of rotations, reflections, and translations a. Lines are taken to lines and line segments to line segments of the same length. b. Angles are taken to angles the same measure. c. Parallel lines are taken to parallel lines.	Identify a translation Translate a figure in the coordinate plane Translate a figure using coordinates Describe a translation Identify a reflection Reflect a figure in the x-axis and in the y-axis Describe a reflection Identify a rotation Rotate a figure in the coordinate plane Describe a rotation Use more than one transformation Describe a sequence of transformations	<u>Big Ideas:</u> 11.2 Translations 11.3 Reflections 11.4 Rotations <u>IXL (8):</u> P2, P3, P5, P7
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 a sequence that exhibits the congruence between them.	Name corresponding parts Identify congruent figures Use congruent figures to find missing measures Identify a translation	<u>Big Ideas:</u> 11.1 Congruent Figures 11.2 Translations 11.3 Reflections

	<p>Translate a figure in the coordinate plane Translate a figure using coordinates Describe a translation Identify a reflection Reflect a figure in the x-axis and in the y-axis Describe a reflection Identify a rotation Rotate a figure in the coordinate plane Describe a rotation Use more than one transformation Describe a sequence of transformations</p>	<p>11.4 Rotations <u>IXL (8):</u> P9, P10, Q1,</p>
<p>8.G.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.</p>	<p>Identify a translation Translate a figure in the coordinate plane Translate a figure using coordinates Describe a translation Identify a reflection Reflect a figure in the x-axis and in the y-axis Describe a reflection Identify a rotation Rotate a figure in the coordinate plane Describe a rotation Use more than one transformation Describe a sequence of transformations Identify a dilation Dilate figures in the coordinate plane Describe a dilation (scale factor, reduction, enlargement)</p>	<p><u>Big Ideas:</u> 11.2 Translations 11.3 Reflections 11.4 Rotations 11.7 Dilations <u>IXL (8):</u> P4, P6, P8, Q2, Q3</p>
<p>8.G.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, and translations and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.</p>	<p>Identify similar figures Name corresponding angles and corresponding sides of similar figures Find unknown measures of similar figures Understand the relationship between perimeters of similar figures Understand the relationship between areas of similar figures Find the ratios of perimeters and areas for similar figures Use proportions to find perimeters and areas Identify a dilation Dilate figures in the coordinate plane</p>	<p><u>Big Ideas:</u> 11.5 Similar Figures 11.6 Perimeters and Areas of Similar Figures 11.7 Dilations <u>IXL (8):</u> Q1, Q5</p>

		Describe a dilation (scale factor, reduction, enlargement)	
	8.G.5 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 similarity of triangles.	Identify corresponding, alternate interior and alternate exterior angles Use corresponding, alternate interior and alternate exterior to find angle measures Use interior angle sum to find missing angle measures of a triangle Find exterior angle measures of a triangle Find the sum of interior angles of a polygon Use the interior angle sum to find missing measures in a polygon Find the measure of each angle of a regular polygon Use the exterior angle sum to find missing measures in a polygon Use angle measures to determine similar triangles Use indirect measurement to find missing measures of similar triangles	Big Ideas: 12.1 Parallel Lines and Transversals 12.2 Angles of Triangles 12.3 Angles of Polygons 12.4 Using Similar Triangles IXL (8): O6, O8, O9, O10, O11, O12, P11
	8.G.9 Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	Find the volume of a cylinder, of a cone and of a sphere Find the height or radius of a cylinder or a cone if given the volume Find the radius of a sphere if given the volume Find the volume of hemispheres and composite solids Identify similar solids Find missing measures in similar solids Find surface area and volume of similar solids	Big Ideas: 15.1 Volumes of Cylinders 15.2 Volumes of Cones 15.3 Volumes of Spheres 15.4 Surface Areas and Volumes of Similar Solids IXL (8): T9, T10, T13
Statistics and Probability	7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	Identify sample and population in a situation Identify a biased or unbiased sample Determine validity of conclusions Make predictions	Big Ideas: 10.6 Samples and Populations IXL: CC6
	7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate	Determine validity of conclusions Make predictions	Big Ideas: 10.6 Samples and

	<p>multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions.</p>		<p>Populations <u>IXL:</u> J12</p>
	<p>7.SP.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability.</p>	<p>Use the mean, mean absolute deviation and interquartile range to compare populations</p>	<p><u>Big Ideas:</u> 10.7 Comparing Populations <u>IXL:</u></p>
	<p>7.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.</p>	<p>Use the mean, mean absolute deviation and interquartile range to compare populations</p>	<p><u>Big Ideas:</u> 10.7 Comparing Populations <u>IXL:</u> CC1, CC2, CC3, CC4</p>
	<p>7.SP.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.</p>	<p>Identify and count outcomes Describe the likelihood of an event Find and compare theoretical probability of events Use theoretical probability to make a prediction</p>	<p><u>Big Ideas:</u> 10.1 Outcomes and Events 10.2 Probability 10.3 Experimental and Theoretical Probability <u>IXL:</u> DD1</p>
	<p>7.SP.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.</p>	<p>Find and compare experimental and theoretical probability of an event Use experimental probability to make a prediction</p>	<p><u>Big Ideas:</u> 10.3 Experimental and Theoretical Probability <u>IXL:</u> DD3, DD4</p>
	<p>7.SP.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.</p>	<p>Use theoretical and experimental probability to make predictions</p>	<p><u>Big Ideas:</u> 10.2 Probability 10.3 Experimental and Theoretical Probability <u>IXL:</u> DD1, DD3</p>
	<p>7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.</p>	<p>Find a sample space (lists, tables, and tree diagrams) Use the fundamental counting principle and sample spaces to find total possible outcomes Identify compound events as dependent or</p>	<p><u>Big Ideas:</u> 10.4 Compound Events 10.5 Independent and Dependent Events 10.5extension Simulations</p>

<p>b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event.</p> <p>c. Design and use a simulation to generate frequencies for compound events.</p>	<p>independent Find the probability of compound events, dependent events and independent events Perform simulations to find probabilities of compound events</p>	<p><u>IXL:</u> DD2, DD5, DD6, DD7, DD8, DD9, DD10, DD11</p>
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