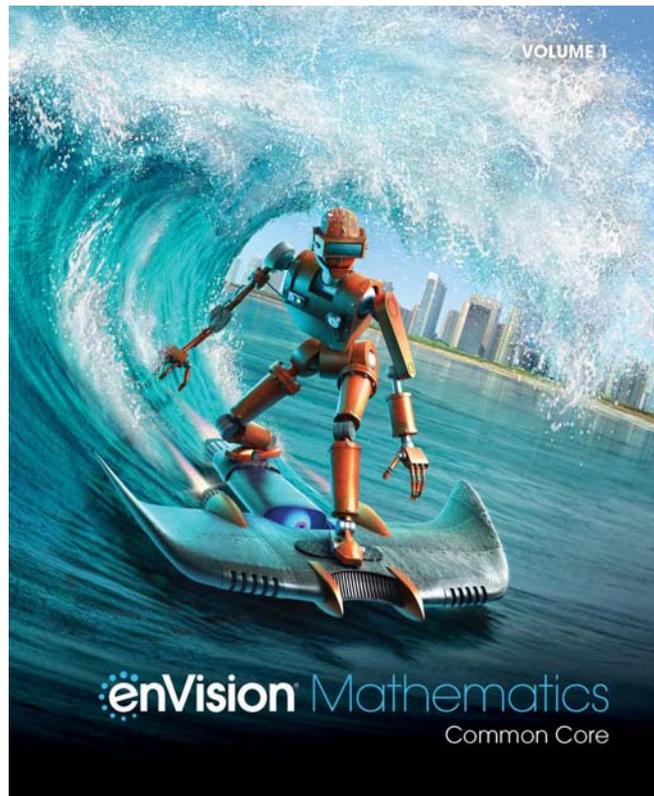


A Correlation of

# enVision<sup>®</sup> Mathematics

**Accelerated Grade 7, ©2021**



to the  
**Common Core State Standards  
for Mathematics  
Accelerated Grade 7**

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**Introduction**

The new enVision® Mathematics ©2021 is the latest offering of the nationally recognized Grades K-12 series, created for print, digital, and blended instruction. Problem-Based Learning connects with Visual Learning to deep conceptual understanding. Interactive multimedia experiences engage learners in student choice and solving rich problems. Extensive customization and differentiation options empower every teacher and student.

**UNDERSTANDING**

A simple lesson design provides a clear, intentional pathway. Starting on a firm foundation of conceptual understanding, students can connect and apply math ideas in amazing ways. High-interest math projects invite all students to be active participants.

A simple lesson design provides a clear, intentional pathway.

STEP 1 Problem-Based Learning

STEP 2 Visual Learning

STEP 3 Assess and Differentiate

**ASSESSMENT**

The enVision Assessment Suite offers options to move students toward mastery of state standards while driving instructional differentiation.

**DIAGNOSTIC Assessment**

Reading Test, Diagnostic Test (Math Diagnosis and Intervention System), Review What You Know

**FORMATIVE Assessment**

SCOUT Observational Assessment used during Solve & Share, Do You Understand? And Convince Me! Guide Practice, Quick Check

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Topic Assessments, Topic Performance Assessments, Examview Test Generator, Fluency Assessments, Cumulative/Benchmarks Assessments, Progress Monitoring Assessments

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Gain a new perspective on your teaching with embedded strategies, methods, and a wide range of Professional Development opportunities in print and digital formats.

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Kids See the Math. Teachers See Results.

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<b>Common Core State Standards for Mathematics Accelerated Grade 7</b>	<b>enVision Mathematics, ©2021 Accelerated Grade 7</b>
<b>Mathematical Content</b>	
<b>Unit 1: Rational Numbers and Exponents</b>	
<b>Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.</b>	
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.	<b>SE:</b> 9-14, 21-26, 27-32, 33-38, 75-80 <b>TE:</b> 9A-14B, 21A-26B, 27A-32B, 33A-38B, 75-80
a. Describe situations in which opposite quantities combine to make 0. <i>For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.</i>	<b>SE:</b> 9-14, 75-80 <b>TE:</b> 9A-14B, 75-80
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.	<b>SE:</b> 21-26, 33-38, 75-80 <b>TE:</b> 21A-26B, 33A-38B, 75-80
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.	<b>SE:</b> 27-32, 33-38, 75-80 <b>TE:</b> 27A-32B, 33A-38B, 75-80
d. Apply properties of operations as strategies to add and subtract rational numbers.	<b>SE:</b> 21-26, 27-32, 33-38, 75-80 <b>TE:</b> 21A-26B, 27A-32B, 33A-38B, 75-80
7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	<b>SE:</b> 15-20, 41-46, 47-52, 53-58, 59-64, 75-80 <b>TE:</b> 15A-20B, 41A-46B, 47A-52B, 53A-58B, 59A-64B, 75-80

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<b>Common Core State Standards for Mathematics Accelerated Grade 7</b>	<b>enVision Mathematics, ©2021 Accelerated Grade 7</b>
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.	<b>SE:</b> 41-46, 47-52, 75-80 <b>TE:</b> 41A-46B, 47A-52B, 75-80
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.	<b>SE:</b> 53-58, 59-64, 75-80 <b>TE:</b> 53A-58B, 59A-64B, 75-80
c. Apply properties of operations as strategies to multiply and divide rational numbers.	<b>SE:</b> 41-46, 47-52, 53-58, 59-64, 75-80 <b>TE:</b> 41A-46B, 47A-52B, 53A-58B, 59A-64B, 75-80
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.	<b>SE:</b> 15-20, 75-80 <b>TE:</b> 15A-20B, 75-80
7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.	<b>SE:</b> 65-70, 637-642, 643-648, 75-80, 649-650 <b>TE:</b> 65A-70B, 637A-642B, 643A-648B, 75-80, 649-650
<b>Know that there are numbers that are not rational, and approximate them by rational numbers.</b>	
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.	<b>SE:</b> 89-94, 95-100, 155-160 <b>TE:</b> 89A-94B, 95A-100B, 155-160

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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., $p^2$ ). <i>For example, by truncating the decimal expansion of <math>\sqrt{2}</math>, show that <math>\sqrt{2}</math> is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.</i>	<b>SE:</b> 101-106, 155-160  <b>TE:</b> 101A-106B, 155-160
<b>Work with radicals and integer exponents.</b>	
8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. <i>For example, <math>3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27</math>.</i>	<b>SE:</b> 121-126, 127-132, 155-160  <b>TE:</b> 121A-126B, 127A-132B, 155-160
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.	<b>SE:</b> 107-112, 113-118, 155-160  <b>TE:</b> 107A-112B, 113A-118B, 155-160
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. <i>For example, estimate the population of the United States as <math>3 \times 10^8</math> and the population of the world as <math>7 \times 10^9</math>, and determine that the world population is more than 20 times larger.</i>	<b>SE:</b> 133-138, 155-160  <b>TE:</b> 133A-138B, 155-160
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.	<b>SE:</b> 139-144, 149-154, 155-160  <b>TE:</b> 139A-144B, 149A-154B, 155-160

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Common Core State Standards for Mathematics Accelerated Grade 7	enVision Mathematics, ©2021 Accelerated Grade 7
<b>Unit 2: Proportionality and Linear Relationships</b>	
<b>Analyze proportional relationships and use them to solve real-world and mathematical problems.</b>	
7.RP.1 <i>Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2 / 1/4 miles per hour, equivalently 2 miles per hour.</i>	<b>SE:</b> 169-174, 175-180, 211-214  <b>TE:</b> 169A-174B, 175A-180B, 211-214
7.RP.2 <i>Recognize and represent proportional relationships between quantities.</i>	<b>SE:</b> 181-186, 187-192, 199-204, 223-228, 229-234, 235-240, 487-494, 531-536, 211-214, 265-268, 513-516, 573-574  <b>TE:</b> 181A-186B, 187A-192B, 199A-204B, 223A-228B, 229A-234B, 235A-240B, 487A-494B, 531A-536B, 211-214, 265-268, 513-516, 573-574
a. <i>Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.</i>	<b>SE:</b> 181-186, 199-204, 223-228, 211-214, 265-268  <b>TE:</b> 181A-186B, 199A-204B, 223A-228B, 211-214, 265-268
b. <i>Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</i>	<b>SE:</b> 187-192, 199-204, 223-228, 211-214, 265-268  <b>TE:</b> 187A-192B, 199A-204B, 223A-228B, 211-214, 265-268
c. <i>Represent proportional relationships by equations. For example, if total cost <math>t</math> is proportional to the number <math>n</math> of items purchased at a constant price <math>p</math>, the relationship between the total cost and the number of items can be expressed as <math>t = pn</math>.</i>	<b>SE:</b> 187-192, 229-234, 235-240, 487-494, 531-536, 211-214, 265-268, 513-516, 573-574  <b>TE:</b> 187A-192B, 229A-234B, 235A-240B, 487A-494B, 531A-536B, 211-214, 265-268, 513-516, 573-574
d. <i>Explain what a point <math>(x, y)</math> on the graph of a proportional relationship means in terms of the situation, with special attention to the points <math>(0, 0)</math> and <math>(1, r)</math> where <math>r</math> is the unit rate.</i>	<b>SE:</b> 199-204, 211-214  <b>TE:</b> 199A-204B, 211-214

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<b>Common Core State Standards for Mathematics Accelerated Grade 7</b>	<b>enVision Mathematics, ©2021 Accelerated Grade 7</b>
7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. <i>Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</i>	<b>SE:</b> 169-174, 175-180, 205-210, 223-228, 229-234, 235-240, 243-248, 253-258, 259-264, 211-214, 265-268  <b>TE:</b> 169A-174B, 175A-180B, 205A-210B, 223A-228B, 229A-234B, 235A-240B, 243A-248B, 253A-258B, 259A-264B, 211-214, 265-268
<b>Use properties of operations to generate equivalent expressions.</b>	
7.EE.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	<b>SE:</b> 283-288, 289-294, 295-300, 301-306, 313-318, 319-324, 331-334  <b>TE:</b> 283A-288B, 289A-294B, 295A-300B, 301A-306B, 313A-318B, 319A-324B, 331-334
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. <i>For example, <math>a + 0.05a = 1.05a</math> means that “increase by 5%” is the same as “multiply by 1.05.”</i>	<b>SE:</b> 295-300, 313-318, 319-324, 325-330, 331-334  <b>TE:</b> 295A-300B, 313A-318B, 319A-324B, 325A-330B, 331-334
<b>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</b>	
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. <i>For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</i>	<b>SE:</b> 65-70, 277-282, 349-354, 355-360, 487-494, 525-530, 543-548, 621-626, 637-642, 643-648, 331-334, 391-394, 513-516, 573-574, 649-650  <b>TE:</b> 65A-70B, 277A-282B, 349A-354B, 355A-360B, 487A-494B, 525A-530B, 543A-546B, 621A-626B, 637A-642B, 643A-648B, 331-334, 391-394, 513-516, 573-574, 649-650

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<b>Common Core State Standards for Mathematics Accelerated Grade 7</b>	<b>enVision Mathematics, ©2021 Accelerated Grade 7</b>
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><b>SE:</b> 277-282, 343-348, 349-354, 355-360, 363-368, 369-374, 379-384, 385-390, 613-618, 621-626, 637-642, 643-648, 331-334, 391-394, 649-650</p> <p><b>TE:</b> 277A-282B, 343A-348B, 349A-354B, 355A-360B, 363A-368B, 369A-374B, 379A-384B, 385A-390B, 613A-618B, 621A-626B, 637A-642B, 643A-648B, 331-334, 391-394, 649-650</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. <i>For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</i>	<p><b>SE:</b> 277-282, 343-348, 349-354, 355-360, 613-618, 621-626, 637-642, 643-648, 331-334, 391-394, 649-650</p> <p><b>TE:</b> 277A-282B, 343A-348B, 349A-354B, 355A-360B, 613A-618B, 621A-626B, 637A-642B, 643A-648B, 331-334, 391-394, 649-650</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. <i>For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.</i>	<p><b>SE:</b> 363-368, 369-374, 379-384, 385-390, 391-394</p> <p><b>TE:</b> 363A-368B, 369A-374B, 379A-384B, 385A-390B, 391-394</p>
<b>Understand the connections between proportional relationships, lines, and linear equations.</b>	
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. <i>For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.</i>	<p><b>SE:</b> 435-440, 465-466</p> <p><b>TE:</b> 435A-440B, 465-466</p>

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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 $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at $b$ .	<b>SE:</b> 441-446, 447-452, 453-458, 459-464, 465-466  <b>TE:</b> 441A-446B, 447A-452B, 453A-458B, 459A-464B, 465-466
<b>Analyze and solve linear equations and pairs of simultaneous linear equations.</b>	
8.EE.7 Solve linear equations in one variable.	<b>SE:</b> 403-408, 409-414, 415-420, 421-428, 465-466  <b>TE:</b> 403A-408B, 409A-414B, 415A-420B, 421A-428B, 465-466
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 numbers).	<b>SE:</b> 421-428, 465-466  <b>TE:</b> 421A-428B, 465-466
b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	<b>SE:</b> 403-408, 409-414, 415-420, 465-466  <b>TE:</b> 403A-408B, 409A-414B, 415A-420B, 465-466
<b>Unit 3: Introduction to Sampling and Inference</b>	
<b>Use random sampling to draw inferences about a population.</b>	
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.	<b>SE:</b> 479-486, 487-494, 513-516  <b>TE:</b> 479A-486B, 487A-494B, 513-516

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<p>7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. <i>For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.</i></p>	<p><b>SE:</b> 487-494, 513-516</p> <p><b>TE:</b> 487A-494B, 513-516</p>
<b>Draw informal comparative inferences about two populations.</b>	
<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. <i>For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.</i></p>	<p><b>SE:</b> 497-502, 503-508, 513-516</p> <p><b>TE:</b> 497A-502B, 503A-508B, 513-516</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. <i>For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</i></p>	<p><b>SE:</b> 497-502, 503-508, 513-516</p> <p><b>TE:</b> 497A-502B, 503A-508B, 513-516</p>
<b>Investigate chance processes and develop, use, and evaluate probability models.</b>	
<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><b>SE:</b> 525-530, 573-574</p> <p><b>TE:</b> 525A-530B, 573-574</p>

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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. <i>For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.</i>	<b>SE:</b> 531-536, 537-542, 573-574  <b>TE:</b> 531A-536B, 537A-542B, 573-574
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.	<b>SE:</b> 537-542, 543-548, 573-574  <b>TE:</b> 537A-542B, 543A-548B, 573-574
a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. <i>For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.</i>	<b>SE:</b> 537-542, 543-548, 573-574  <b>TE:</b> 537A-542B, 543A-548B, 573-574
b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. <i>For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?</i>	<b>SE:</b> 543-548, 573-574  <b>TE:</b> 543A-548B, 573-574
7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	<b>SE:</b> 555-560, 561-566, 567-572  <b>TE:</b> 555A-560B, 561A-566B, 567A-572B
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.	<b>SE:</b> 561-566, 573-574  <b>TE:</b> 561A-566B, 573-574

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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.	<b>SE:</b> 555-560, 573-574 <b>TE:</b> 555A-560B, 573-574
c. Design and use a simulation to generate frequencies for compound events. <i>For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?</i>	<b>SE:</b> 567-572, 573-574 <b>TE:</b> 567A-572B, 573-574
<b>Unit 4: Creating, Comparing, and Analyzing Geometric Figures</b>	
<b>Draw, construct, and describe geometrical figures and describe the relationships between them.</b>	
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.	<b>SE:</b> 587-592, 649-650 <b>TE:</b> 587A-592B, 649-650
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.	<b>SE:</b> 593-598, 599-606, 649-650 <b>TE:</b> 593A-598B, 599A-605B, 649-650
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.	<b>SE:</b> 631-636, 649-650 <b>TE:</b> 631A-636B, 649-650
<b>Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.</b>	
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.	<b>SE:</b> 613-618, 621-626, 649-650 <b>TE:</b> 613A-618B, 621A-626B, 649-650

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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.	<b>SE:</b> 607-612, 649-650 <b>TE:</b> 607A-612B, 649-650
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.	<b>SE:</b> 637-642, 643-648, 649-650 <b>TE:</b> 637A-642B, 643A-648B, 649-650
<b>Understand congruence and similarity using physical models, transparencies, or geometry software.</b>	
8.G.1 Verify experimentally the properties of rotations, reflections, and translations:	<b>SE:</b> 663-668, 669-674, 675-680, 681-686, 731-732 <b>TE:</b> 663A-668B, 669A-674B, 675A-680B, 681A-686B, 731-732
a. Lines are taken to lines, and line segments to line segments of the same length.	<b>SE:</b> 663-668, 669-674, 675-680, 681-686, 731-732 <b>TE:</b> 663A-668B, 669A-674B, 675A-680B, 681A-686B, 731-732
b. Angles are taken to angles of the same measure.	<b>SE:</b> 663-668, 669-674, 675-680, 681-686, 731-732 <b>TE:</b> 663A-668B, 669A-674B, 675A-680B, 681A-686B, 731-732
c. Parallel lines are taken to parallel lines.	<b>SE:</b> 663-668, 669-674, 675-680, 681-686, 731-732 <b>TE:</b> 663A-668B, 669A-674B, 675A-680B, 681A-686B, 731-732

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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.	<b>SE:</b> 691-696, 731-732  <b>TE:</b> 691A-696B, 731-732
8.G.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	<b>SE:</b> 663-668, 669-674, 675-680, 681-686, 691-696, 698-704, 705-710, 731-732  <b>TE:</b> 663A-668B, 669A-674B, 675A-680B, 681A-686B, 691A-696B, 698A-704B, 705A-710B, 731-732
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, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.	<b>SE:</b> 698-704, 705-710, 731-732  <b>TE:</b> 698A-704B, 705A-710B, 731-732
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. <i>For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.</i>	<b>SE:</b> 711-718, 719-724, 725-730, 731-732  <b>TE:</b> 711A-718B, 719A-724B, 725A-730B, 731-732
<b>Solve real-world and mathematical problem involving volume of cylinders, cones, and spheres.</b>	
8.G.9 Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	<b>SE:</b> 787-792, 793-798, 801-806, 807-812, 731-732  <b>TE:</b> 787A-792B, 793A-798B, 801A-806B, 807A-812B, 731-732

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<b>Mathematical Practices</b>	
<b>MP.1 Make sense of problems and persevere in solving them.</b>	<p>enVision Mathematics provides numerous instructional opportunities to help students develop proficiency in the math practices. To get students off to a good start on all eight practices, use the Math Practices and Problem Solving Handbook pages online. Each lesson begins with Problem-Based Learning, an activity in which students interact with their peers and teachers to make sense of and decide on a workable solution for a situation. Another feature of each lesson is the set of problem-solving exercises in which students persevere by applying different skills and strategies to solve problems. Each Problem-Solving Lesson provides instruction and practice focused on a specific math practice.</p> <p><b>Student's Edition pages</b> 14, 32, 46, 69, 173, 210, 228, 233, 239, 240, 248, 258, 292, 298, 300, 305, 323, 354, 358, 359, 406, 407, 440, 464, 484, 486, 500, 529, 533, 534, 535, 544, 617, 674, 684, 767, 792, 797, 798, 811</p>
<b>MP.2 Reason abstractly and quantitatively.</b>	<p>enVision Mathematics provides scaffolded instruction to help students develop both quantitative and abstract reasoning. In the Visual Learning Bridge, students can see how to represent a given situation numerically or algebraically. They will have opportunities later in the lesson to reason abstractly as they endeavor to represent situations symbolically. Reasonableness exercises remind students to compare their work to the original situation. Reasoning problems throughout the exercise sets focus students' attention on the structure or meaning of an operation, for example, rather than merely the solution.</p> <p><b>Student's Edition pages</b> 12, 13, 30, 31, 37, 56, 68, 94, 98, 100, 104, 130, 154, 185, 186, 208, 209, 232, 246, 264, 292, 412, 418, 426, 427, 444, 451, 485, 491, 534, 540, 610, 673, 678</p>

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<p><b>MP.3 Construct viable arguments and critique the reasoning of others.</b></p>	<p>Consistent with a focus on reasoning and sense-making is a focus on critical reasoning— argumentation and critique of arguments. In <b>enVision®</b> Mathematics, the Problem-Based Learning affords students opportunities to share with classmates their thinking about problems, their solution methods, and their reasoning about the solutions. Many exercises found throughout the program explicitly call for students to justify or explain their solutions. The ability to articulate a clear explanation for a process is a stepping stone to critical analysis and reasoning of both the student’s own process and those of others.</p> <p><b>Student’s Edition pages</b> 26, 31, 36, 45, 64, 68, 98, 99, 104, 110, 112, 116, 118, 126, 131, 136, 138, 142, 153, 178, 185, 192, 226, 228, 232, 234, 238, 246, 263, 294, 324, 372, 389, 425, 427, 446, 464</p>
<p><b>MP.4 Model with mathematics.</b></p>	<p>Students using enVision Mathematics explicitly use mathematical modeling in each Topic during the 3-Act Math lesson. The Visual Learning Bridge also often presents real-world situations, demonstrating how these problems can be modeled mathematically.</p> <p><b>Student’s Edition pages</b> 12, 25, 26, 30, 38, 50, 63, 70, 106, 126, 173, 191, 202, 240, 281, 305, 352, 353, 354, 366, 367, 368, 408, 412, 413, 439, 451, 452, 457, 462, 463</p>

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<p><b>MP.5 Use appropriate tools strategically.</b></p>	<p>Students become fluent in the use of a wide assortment of tools ranging from physical objects, including manipulatives, integer chips, algebra tiles, and even pencil and paper, to digital tools, such as graphing calculators, Online Math Tools, and computers. As students become more familiar with the tools available to them, they are able to begin making decisions about which tools are most helpful in a particular situation.</p> <p><b>Student’s Edition pages</b> 12, 13, 25, 202, 208, 366, 367, 368, 372, 373, 374, 388, 408, 458, 462, 463, 558, 566, 596, 597, 598, 603, 636, 666, 667, 672, 673, 674, 695</p>
<p><b>MP.6 Attend to precision.</b></p>	<p>Students are expected to use mathematical terms and symbols with precision. Key terms are highlighted in each lesson and important concepts presented in the Concept Summary. The Problem-Based Learning activity provides repeated opportunities for students to use precise language to explain their solution paths while solving problems. In the Convince Me! feature, students revisit these key terms or concepts and provide explicit definitions or explanations.</p> <p><b>Student’s Edition pages</b> 18, 20, 45, 51, 92, 105, 111, 116, 136, 137, 186, 226, 227, 248, 262, 281, 316, 388, 483, 547, 548, 591, 611, 612, 617, 624, 708, 715, 716, 717, 718, 722, 723, 724, 729, 730, 753, 754, 758</p>

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<p><b>MP.7 Look for and make use of structure.</b></p>	<p>Students are encouraged to look for structure as they develop solution plans. For example, as students mature in their mathematical thinking, they see structure when working with problems that can be represented with the Distributive Property. This focus on looking for and recognizing structure enables students to draw from patterns as they formalize their thinking about the structure of operations.</p> <p><b>Student's Edition pages</b> 19, 38, 44, 57, 58, 62, 92, 132, 152, 170, 203, 257, 280, 298, 322, 328, 330, 346, 352, 354, 407, 413, 418, 419, 425, 450, 462, 610, 715, 752, 758, 766</p>
<p><b>MP.8 Look for and express regularity in repeated reasoning.</b></p>	<p>Students are reminded to think about problems they have encountered previously that may share features or processes. They are encouraged to draw on the solution plan developed for such problems, and, as their mathematical thinking matures, to look for and apply generalizations to similar situations.</p> <p><b>Student's Edition pages</b> 111, 125, 131, 143, 179, 262, 280, 286, 287, 298, 299, 300, 305, 445, 559, 560, 626, 631, 684, 753, 759, 767, 811</p>