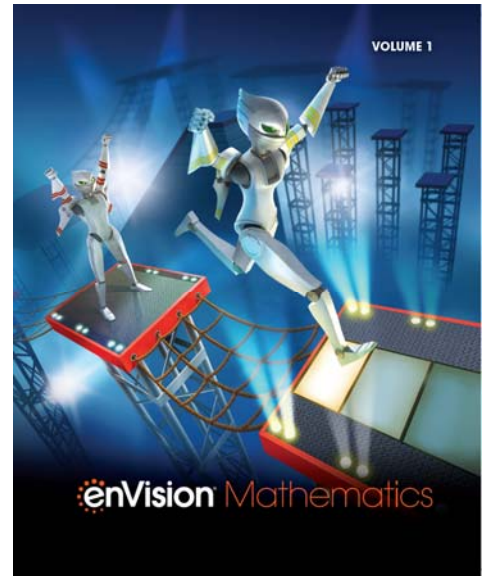
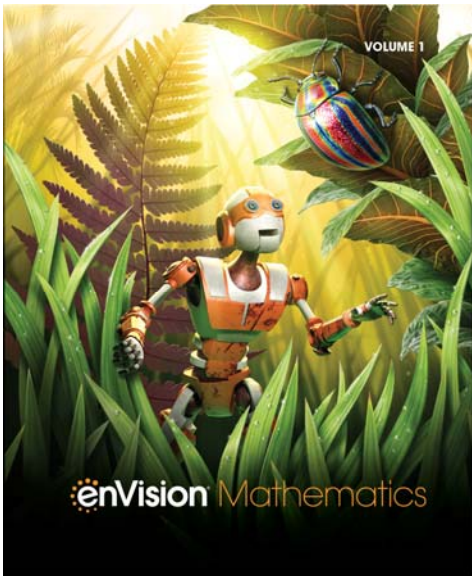


A Correlation of

enVision[®] Mathematics

©2021



to the

New York State Next Generation Mathematics Learning Standards (2017)

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

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

SUMMATIVE Assessment

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

INSTRUCTIONAL SUPPORT

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

Ideas, Inspiration, and Teaching Methods

Math background for every Topic and Lesson serves as an easy-to-access math methods course.

Make every lesson perfect for you. Access all digital content, assessments, and management tools at SavvasRealize.com.

Kids See the Math. Teachers See Results.

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

Table of Contents

Grade 6	1
Grade 7	13
Grade 8	22

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 6	enVision Mathematics, ©2021 Grade 6
Ratios and Proportional Relationships NY-6.RP	
Understand ratio concepts and use ratio reasoning to solve problems.	
1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	SE: 267–272, 273–278, 279–284, 333–338 TE: 267A–272B, 273A–278B, 279A–284B, 333–338
2. Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$ (b not equal to zero), and use rate language in the context of a ratio relationship.	SE: 293–298, 299–304, 305–310, 333–338 TE: 293A–298B, 299A–304B, 305A–310B, 333–338
3. Use ratio and rate reasoning to solve real-world and mathematical problems.	SE: 267–272, 273–278, 279–284, 285–290, 293–298, 299–304, 305–310, 315–320, 321–326, 327–332, 333–338 TE: 267A–272B, 273A–278B, 279A–284B, 285A–290B, 293A–298B, 299A–304B, 305A–310B, 315A–320B, 321A–326B, 327A–332B, 333–338
a. Make tables of equivalent ratios relating quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	SE: 273–278, 279–284, 285–290, 333–338 TE: 273A–278B, 279A–284B, 285A–290B, 333–338
b. Solve unit rate problems.	SE: 293–298, 299–304, 305–310, 333–338 TE: 293A–298B, 299A–304B, 305A–310B, 333–338
c. Find a percent of a quantity as a rate per 100. Solve problems that involve finding the whole given a part and the percent, and finding a part of a whole given the percent.	SE: 347–352, 373–378, 379–384, 389–392 TE: 347A–352B, 373A–378B, 379A–384B, 389–392
d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	SE: 315–320, 321–326, 327–332, 333–338 TE: 315A–320B, 321A–326B, 327A–332B, 333–338

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 6	enVision Mathematics, ©2021 Grade 6
The Number System NY-6.NS	
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	
1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions.	SE: 39–44, 45–50, 57–60 TE: 39A–44B, 45A–50B, 57–60
Compute fluently with multi-digit numbers and find common factors and multiples.	
2. Fluently divide multi-digit numbers using the standard algorithm.	SE: 15–20, 57–60 TE: 15A–20B, 57–60
3. Fluently add, subtract, multiply, and divide multi-digit decimals using a standard algorithm for each operation.	SE: 9–14, 15–20, 51–56 TE: 9A–14B, 15A–20B, 51–56
4. Find the greatest common factor of two whole numbers less than or equal to 100. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. Find the least common multiple of two whole numbers less than or equal to 12.	SE: 129–136, 173–176 TE: 129A–136B, 173–176
Apply and extend previous understandings of numbers to the system of rational numbers.	
5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values. Use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	SE: 69–74, 75–80, 111–114 TE: 69A–74B, 75A–80B, 111–114
6. Understand a rational number as a point on the number line. Use number lines and coordinate axes to represent points on a line and in the coordinate plane with negative number coordinates.	SE: 69–74, 75–80, 89–94, 111–114 TE: 69A–74B, 75A–80B, 89A–94B, 111–114
a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line. Recognize that the opposite of the opposite of a number is the number itself, and that 0 is its own opposite.	SE: 75–80, 111–114 TE: 75A–80B, 111–114

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 6	enVision Mathematics, ©2021 Grade 6
b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane. Recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.	SE: 75-80, 89-94, 111-114 TE: 75A-80B, 89A-94B, 111-114
c. Find and position integers and other rational numbers on a horizontal or vertical number line. Find and position pairs of integers and other rational numbers on a coordinate plane.	SE: 75-80, 89-94, 111-114 TE: 75A-80B, 89A-94B, 111-114
7. Understand ordering and absolute value of rational numbers.	SE: 81-86, 111-114 TE: 81A-86B, 111-114
a. Interpret statements of inequality as statements about the relative position of two numbers on a number line.	SE: 219-224, 253-258 TE: 219A-224B, 253-258
b. Write, interpret, and explain statements of order for rational numbers in real-world contexts.	SE: 219-224, 253-258 TE: 219A-224B, 253-258
c. Understand the absolute value of a rational number as its distance from 0 on the number line. Interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.	SE: 81-86, 111-114 TE: 81A-86B, 111-114
d. Distinguish comparisons of absolute value from statements about order.	SE: 81-86, 111-114 TE: 81A-86B, 111-114
8. Solve real-world and mathematical problems by graphing points on a coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	SE: 89-94, 99-104, 105-110, 111-114, 419-424, 455-460 TE: 89A-94B, 99A-104B, 105A-110B, 111-114, 419A-424B, 455-460

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 6	enVision Mathematics, ©2021 Grade 6
Expressions and Equations NY-6.EE	
Apply and extend previous understandings of arithmetic to algebraic expressions.	
1. Write and evaluate numerical expressions involving whole-number exponents.	SE: 123–128, 137–142, 173–176 TE: 123A–128B, 137A–142B, 173–176
2. Write, read, and evaluate expressions in which letters stand for numbers.	SE: 145–150, 151–156, 173–176, 401–406, 407–412, 413–418, 419–424, 437–442, 443–448, 449–454, 455–460 TE: 145A–150B, 151A–156B, 173–176, 401A–406B, 407A–412B, 413A–413B, 419A–424B, 437A–442B, 443A–448B, 449A–454B, 455–460
a. Write expressions that record operations with numbers and with letters standing for numbers.	SE: 145–150, 173–176, 437–442, 443–448, 449–454, 455–460 TE: 145A–150B, 173–176, 437A–442B, 443A–448B, 449A–454B, 455–460
b. Identify parts of an expression using mathematical terms (term, coefficient, sum, difference, product, factor, and quotient); view one or more parts of an expression as a single entity.	SE: 145–150, 173–176 TE: 145A–150B, 173–176
c. Evaluate expressions given specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order (Order of Operations).	SE: 151–156, 173–176, 401–406, 407–412, 413–418, 419–424, 437–442, 443–448, 449–454, 455–460 TE: 151A–156B, 173–176, 401A–406B, 407A–412B, 413A–413B, 419A–424B, 437A–442B, 443A–448B, 449A–454B, 455–460
3. Apply the properties of operations to generate equivalent expressions.	SE: 137–142, 161–166, 167–172, 173–176 TE: 137A–142B, 161A–166B, 167A–172B, 173–176
4. Identify when two expressions are equivalent.	SE: 161–166, 167–172, 173–176, 191–196, 253–258 TE: 161A–166B, 167A–172B, 173–176, 191A–196B, 253–258

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 6	enVision Mathematics, ©2021 Grade 6
Reason about and solve one-variable equations and inequalities.	
5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	SE: 185–190, 219–224, 225–230, 253–258 TE: 185A–190B, 219A–224B, 225A–230B, 253–258
6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem. Understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	SE: 145–150, 151–156, 173–176, 197–202, 203–208, 209–216, 253–258 437–442, 443–448, 449–454, 455–460 TE: 145A–150B, 151A–156B, 173–176, 197A–202B, 203A–208B, 209A–216B, 253–258, 437A–442B, 443A–448B, 449A–454B, 455–460
7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$; $x - p = q$; $px = q$; $x/p = q$ for cases in which p , q and x are all nonnegative rational numbers.	SE: 191–196, 197–202, 203–208, 209–216, 253–258 TE: 191A–196B, 197A–202B, 203A–208B, 209A–216B, 253–258
8. Write an inequality of the form $x > c$, $x \geq c$, $x \leq c$, or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of these forms have infinitely many solutions; represent solutions of such inequalities on number line.	SE: 219–224, 225–230, 253–258 TE: 219A–224B, 225A–230B, 253–258
Represent and analyze quantitative relationships between dependent and independent variables.	
9. Use variables to represent two quantities in a real-world problem that change in relationship to one another. Given a verbal context and an equation, identify the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.	SE: 235–240, 241–246, 247–252, 253–258 TE: 235A–240B, 241A–246B, 247A–252B, 253–258

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 6	enVision Mathematics, ©2021 Grade 6
Geometry NY-6.G	
Solve real-world and mathematical problems involving area, surface area, and volume.	
1. Find the area of right triangles, trapezoids and polygons by composing into rectangles or decomposing into triangles and quadrilaterals. Apply these techniques in the context of solving real-world and mathematical problems.	SE: 401–406, 407–412, 413–418, 419–424, 455–460 TE: 401A–406B, 407A–412B, 413A–413B, 419A–424B, 455–460
2. Find the volume of a right rectangular prism with fractional edge lengths in the context of solving real-world and mathematical problems.	SE: 449–454, 455–460 TE: 449A–454B, 455–460
3. Draw polygons in the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	SE: 105–110, 111–114, 419–424, 455–460 TE: 105A–110B, 111–114, 419A–424B, 455–460
4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	SE: 427–432, 437–442, 443–448, 455–460 TE: 427A–432B, 437A–442B, 443A–448B, 455–460
5. Use area and volume to explain perfect squares and perfect cubes.	This standard is addressed in enVision Mathematics ©2021 Grade 8 Lesson 1-4. Please see: SE: 27-32 TE: 27A-32B
Statistics and Probability NY-6.SP	
Develop understanding of statistical variability.	
1a. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.	SE: 469–474, 519–522 TE: 469A–474B, 519–522

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 6</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 6</p>
<p>1b. 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.</p>	<p>This standard is addressed in enVision Mathematics, ©2021 grade 7 Lessons 6-1, 6-2, 6-3, 6-4. Please see:</p> <p>SE: 323-330, 331-338, 341-346, 347-352, 341-346, 347-352</p> <p>TE: 323A-330B, 331A-338B, 341A-346B, 347A-352B</p>
<p>1c. Understand that the method and sample size used to collect data for a particular question is intended to reduce the difference between a population and a sample taken from the population so valid inferences can be drawn about the population. Generate multiple samples (or simulated samples) of the same size to recognize the variation in estimates or predictions.</p>	<p>This standard is addressed in enVision Mathematics, ©2021 grade 7 Lessons 6-1, 6-3, 6-4. Please see:</p> <p>SE: 323-330, 341-346, 347-352</p> <p>TE: 323A-330B, 341A-346B, 347A-352B</p>
<p>2. Understand that a set of quantitative data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.</p>	<p>SE: 509-514, 519-522</p> <p>TE: 509A-514B, 519-522</p>
<p>3. Recognize that a measure of center for a quantitative data set summarizes all of its values with a single number while a measure of variation describes how its values vary with a single number.</p>	<p>SE: 475-482, 519-522</p> <p>TE: 475A-482B, 519-522</p>
<p>Summarize and describe distributions.</p>	
<p>4. Display quantitative data in plots on a number line, including dot plots, and histograms.</p>	<p>SE: 469-474, 483-488, 489-494, 497-502, 509-514, 519-522</p> <p>TE: 469A-474B, 483A-488B, 489A-494B, 497A-502B, 509A-514B, 519-522</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 6	enVision Mathematics, ©2021 Grade 6
5. Summarize quantitative data sets in relation to their context.	SE: 475–482, 489–494, 497–502, 503–508, 509–514, 519–522 TE: 475A–482B, 489A–494B, 497A–502B, 503A–508B, 509A–514B, 519–522
a. Reporting the number of observations.	SE: 489–494, 519–522 TE: 489A–494B, 519–522
b. Describe the nature of the attribute under investigation, including how it was measured and its units of measurement.	SE: 509–514, 519–522 TE: 509A–514B, 519–522
c. Calculate the range and measure of center, as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	SE: 475–482, 497–502, 503–508, 509–514, 519–522 TE: 475A–482B, 497A–502B, 503A–508B, 509A–514B, 519–522
d. Relate the range and the choice of measures of center to the shape of the data distribution and the context in which the data were gathered.	SE: 503–508, 519–522 TE: 503A–508B, 519–522
Investigate chance processes and develop, use, and evaluate probability models.	
6. Understand that the probability of a chance event is a number between 0 and 1 inclusive, that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	This standard is addressed in enVision Mathematics, ©2021 grade 7 Lessons 7-1 and 7-2. Please see: SE: 369–374, 375–380 TE: 369A–374B, 375A–380B
7. Approximate the probability of a simple 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.	This standard is addressed in enVision Mathematics, ©2021 grade 7 Lesson 7-3. Please see: SE: 381–386 TE: 381A–386B

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 6</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 6</p>
<p>8. Develop a probability model and use it to find probabilities of simple events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p>	<p>This standard is addressed in enVision Mathematics, ©2021 grade 7 Lesson 7-4. Please see: SE: 387–392 TE: 387A–392B</p>
<p>a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of simple events.</p>	<p>This standard is addressed in enVision Mathematics, ©2021 grade 7 Lesson 7-4. Please see: SE: 387–392 TE: 387A–392B</p>
<p>b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.</p>	<p>This standard is addressed in enVision Mathematics, ©2021 grade 7 Lessons 7-4 and 7-5. Please see: SE: 387–392, 399–404 TE: 387A–392B, 399A–404B</p>
<p>Math Practices</p>	
<p>MP.1 Make sense of problems and persevere in solving them.</p>	<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. SE/TE: 38, 43, 50, 54, 55, 56, 79, 80, 140, 149, 165, 214, 215, 272, 320, 371, 378, 384, 418, 431, 442, 446, 454, 473</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 6</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 6</p>
<p>MP.2 Reason abstractly and quantitatively.</p>	<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>SE/TE: 20, 26, 37, 38, 43, 44, 73, 78, 106, 109, 133, 154, 172, 190, 196, 222, 272, 283, 302, 304, 318, 331, 350, 351, 363, 372, 410, 441, 500</p>
<p>MP.3 Construct viable arguments and critique the reasoning of others.</p>	<p>Consistent with a focus on reasoning and sense-making is a focus on critical reasoning—argumentation and critique of arguments. In enVision 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>SE/TE: 54, 55, 72, 80, 85, 92, 108, 111, 126, 128, 140, 142, 156, 165, 166, 188, 238, 239, 250, 272, 302, 308, 318, 324, 332, 364, 441, 448, 502</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 6</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 6</p>
<p>MP.4 Model with mathematics.</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>SE/TE: 44, 135, 142, 149, 155, 156, 164, 195, 201, 203, 204, 223, 230, 252, 288, 289, 290, 298, 304, 326, 378, 422, 448, 473, 486, 487, 488, 493, 505, 508, 514</p>
<p>MP.5 Use appropriate tools strategically.</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>SE/TE: 104, 109, 110, 229, 230, 250, 251, 278, 288, 289, 290, 376, 416, 432, 446, 448, 486, 487, 488, 492, 493, 494, 513, 514</p>
<p>MP.6 Attend to precision.</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>SE/TE: 25, 37, 43, 49, 50, 56, 109, 141, 202, 213, 215, 296, 297, 298, 303, 309, 319, 325, 331, 363, 371, 378, 382, 405, 406, 411, 412, 417, 423, 430, 447, 448, 452, 453, 454, 508, 513</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 6</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 6</p>
<p>MP.7 Look for and make use of structure.</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>SE/TE: 44, 50, 86, 103, 104, 110, 156, 164, 166, 171, 172, 244, 245, 246, 330, 351, 364, 370, 384, 424, 430, 453, 479</p>
<p>MP.8 Look for and express regularity in repeated reasoning.</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>SE/TE: 19, 50, 127, 128, 166, 270, 271, 276, 277, 282, 283, 284, 310, 432</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 7	enVision Mathematics, ©2021 Grade 7
Ratios and Proportional Relationships NY-7.RP	
Analyze proportional relationships and use them to solve real-world and mathematical problems.	
1. Compute unit rates associated with ratios of fractions.	SE: 89–94, 95–100, 131–134 TE: 89A–94B, 95A–100B, 131–134
2. Recognize and represent proportional relationships between quantities.	SE: 101–106, 107–112, 119–124, 131–134, 143–148, 149–154, 155–160, 185–188, 331–338, 357–360, 375–380, 417–422 TE: 101A–106B, 107A–112B, 119A–124B, 131–134, 143A–143B, 185–188, 331A–338B, 357–360, 375A–380B, 417–422
a. Decide whether two quantities are in a proportional relationship.	SE: 101–106, 119–124, 131–134, 143–148, 149A–154B, 155A–160B, 185–188 TE: 101A–106B, 119A–124B, 131–134, 143A–143B, 185–188
b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.	SE: 107–112, 119–124, 131–134, 143–148, 185–188 TE: 107A–112B, 119A–124B, 131–134, 143A–143B, 185–188
c. Represent a proportional relationship using an equation.	SE: 107–112, 131–134, 149–154, 155–160, 185–188, 331–338, 357–360, 375–380, 417–422 TE: 107A–112B, 131–134, 149A–154B, 155A–160B, 185–188, 331A–338B, 357–360, 375A–380B, 417–422
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.	SE: 119–124, 131–134 TE: 119A–124B, 131–134
3. Use proportional relationships to solve multistep ratio and percent problems.	SE: 89–94, 95–100, 125–130, 131–134, 143–148, 149–154, 155–160, 163–168, 173–178, 179–184, 185–188 TE: 89A–94B, 95A–100B, 125A–130B, 131–134, 143A–143B, 149A–154B, 155A–160B, 163A–168B, 173A–178B, 179A–184B, 185–188

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 7	enVision Mathematics, ©2021 Grade 7
The Number System NY-7.NS	
Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	
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.	SE: 9-14, 21-26, 27-32, 33-38, 75-80 TE: 9A-14B, 21A-26B, 27A-32B, 33A-38B, 75-80
a. Describe situations in which opposite quantities combine to make 0.	SE: 9-14, 75-80 TE: 9A-14B, 75-80
b. Understand addition of rational numbers; $p + q$ is 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.	SE: 21-26, 33-38, 75-80 TE: 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.	SE: 27-32, 33-38, 75-80 TE: 27A-32B, 33A-38B, 75-80
d. Apply properties of operations as strategies to add and subtract rational numbers.	SE: 21-26, 27-32, 33-38, 75-80 TE: 21A-26B, 27A-32B, 33A-38B, 75-80
2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	SE: 15-20, 41-46, 47-52, 53-58, 59-64, 75-80 TE: 15A-20B, 41A-46B, 47A-52B, 53A-58B, 59A-64B, 75-80
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.	SE: 41-46, 47-52, 75-80 TE: 41A-46B, 47A-52B, 75-80

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 7	enVision Mathematics, ©2021 Grade 7
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.	SE: 53–58, 59–64, 75–80 TE: 53A–58B, 59A–64B, 75–80
c. Apply properties of operations as strategies to multiply and divide rational numbers.	SE: 41–46, 47–52, 53–58, 59–64, 75–80 TE: 41A–46B, 47A–52B, 53A–58B, 59A–64B, 75–80
d. Convert a fraction to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.	SE: 15–20, 75–80 TE: 15A–20B, 75–80
3. Solve real-world and mathematical problems involving the four operations with rational numbers.	SE: 65–70, 75–80, 481–486, 487–492, 493–498 TE: 65A–70B, 75–80, 481A–486B, 487A–492B, 493–498
Expressions and Equations NY-7.EE	
Use properties of operations to generate equivalent expressions.	
1. Add, subtract, factor, and expand linear expressions with rational coefficients by applying the properties of operations.	SE: 203–208, 209–214, 215–220, 221–226, 233–238, 239–244, 251–254 TE: 203A–208B, 209A–214B, 215A–220B, 221A–226B, 233A–238B, 239A–244B, 251–254
2. Understand that rewriting an expression in different forms in real-world and mathematical problems can reveal and explain how the quantities are related.	SE: 215–220, 221–226, 233–238, 239–244, 251–254 TE: 215A–220B, 221A–226B, 233A–238B, 239A–244B, 251–254

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 7	enVision Mathematics, ©2021 Grade 7
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	
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. Assess the reasonableness of answers using mental computation and estimation strategies.	SE: 65–70, 75–80, 197–202, 251–254, 269–274, 275–280, 311–314, 331–338, 357–360, 369–374, 387–392, 417–422, 465–470, 481–486, 487–492, 493–498 TE: 65A–70B, 75–80, 197A–202B, 251–254, 269A–274B, 275A–280B, 311–314, 331A–338B, 357–360, 369A–374B, 387A–392B, 417–422, 465A–470B, 481A–486B, 487A–492B, 493–498
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.	SE: 197–202, 251–254, 263–268, 269–274, 275–280, 283–288, 289–294, 299–304, 305–310, 311–314, 457–462, 465–470, 481–486, 487–492, 493–498 TE: 197A–202B, 251–254, 263A–263B, 269A–274B, 275A–280B, 283A–288B, 289A–294B, 299A–304B, 305A–310B, 311–314, 457A–462B, 465A–470B, 481A–486B, 487A–492B, 493–498
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.	SE: 197–202, 251–254, 263–268, 269–274, 275–280, 311–314, 457–462, 465–470, 481–486, 487–492, 493–498 TE: 197A–202B, 251–254, 263A–263B, 269A–274B, 275A–280B, 311–314, 457A–462B, 465A–470B, 481A–486B, 487A–492B, 493–498
b. Solve word problems leading to inequalities of the form $px + q > r$, $px + q \geq r$, $px + q \leq r$, or $px + q < r$, where p , q , and r are rational numbers. Graph the solution set of the inequality on the number line and interpret it in the context of the problem.	SE: 283–288, 289–294, 299–304, 305–310, 311–314 TE: 283A–288B, 289A–294B, 299A–304B, 305A–310B, 311–314

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 7	enVision Mathematics, ©2021 Grade 7
Geometry NY-7.G	
Draw, construct, and describe geometrical figures and describe the relationships between them.	
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.	SE: 431–436, 493–498 TE: 431A–436B, 493–498
2. Draw triangles when given measures of angles and/or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	SE: 437–442, 443–450, 493–498 TE: 437A–424B, 443A–450B, 493–498
3. Describe the two-dimensional shapes that result from slicing three dimensional solids parallel or perpendicular to the base.	SE: 475–480, 493–498 TE: 475A–480B, 493–498
Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	
4. Apply the formulas for the area and circumference of a circle to solve problems.	SE: 457–462, 465–470, 493–498 TE: 457A–462B, 465A–470B, 493–498
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.	SE: 451–456, 493–498 TE: 451A–456B, 493–498
6. Solve real-world and mathematical problems involving area of two-dimensional objects composed of triangles and trapezoids. Solve surface area problems involving right prisms and right pyramids composed of triangles and trapezoids. Find the volume of right triangular prisms, and solve volume problems involving three-dimensional objects composed of right rectangular prisms.	SE: 481–486, 487–492, 493–498 TE: 481A–486B, 487A–492B, 493–498

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 7	enVision Mathematics, ©2021 Grade 7
Statistics and Probability NY-7.SP	
Draw informal comparative inferences about two populations	
1. Construct and interpret box-plots, find the interquartile range, and determine if a data point is an outlier.	This standard is addressed in enVision Mathematics ©2021 Grade 7 Lesson 6-3 and also Grade 6 Lesson 8-3. Please see: Grade 7 SE: 341-346 TE: 341A-346B Grade 6 SE: 483-488 TE: 483A-488B
3. Informally assess the degree of visual overlap of two quantitative data distributions.	SE: 341–346, 347-352, 357–360 TE: 341A–346B, 347A–352B, 357–360
4. Use measures of center and measures of variability for quantitative data from random samples to draw informal comparative inferences about two populations.	SE: 341–346, 347-352, 357–360 TE: 341A–346B, 347A–352B, 357–360
Investigate chance processes and develop, use, and evaluate probability models.	
8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	SE: 399–404, 405–410, 411–416, 417–422 TE: 399A–404B, 405A–410B, 411A–416B, 417–422
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.	SE: 405–410, 417–422 TE: 405A–410B, 417–422
b. Represent sample spaces for compound events using methods such as organized lists, sample space tables, and tree diagrams. For an event described in everyday language, identify the outcomes in the sample space which compose the event.	SE: 399–404, 417–422 TE: 399A–404B, 417–422

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 7</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 7</p>
<p>c. Design and use a simulation to generate frequencies for compound events.</p>	<p>SE: 411–416, 417–422</p> <p>TE: 411A–416B, 417–422</p>
<p>Math Practices</p>	
<p>MP.1 Make sense of problems and persevere in solving them.</p>	<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>SE/TE: 14, 32, 46, 69, 93, 130, 148, 153, 159, 160, 168, 178, 212, 218, 220, 225, 243, 274, 278, 279, 328, 330, 344, 373, 377, 378, 379, 388, 461</p>
<p>MP.2 Reason abstractly and quantitatively.</p>	<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>SE/TE: 12, 13, 30, 31, 37, 56, 68, 105, 106, 128, 129, 152, 166, 184, 212, 329, 335, 378, 384, 454, 456</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 7</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 7</p>
<p>MP.3 Construct viable arguments and critique the reasoning of others.</p>	<p>Consistent with a focus on reasoning and sense-making is a focus on critical reasoning—argumentation and critique of arguments. In enVision 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>SE/TE: 26, 31, 36, 45, 64, 68, 98, 105, 112, 146, 148, 152, 154, 158, 166, 183, 214, 244, 292, 309, 327, 335, 336, 337, 350, 372, 378, 384, 440, 460, 480</p>
<p>MP.4 Model with mathematics.</p>	<p>SE/TE: 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>SE: 12, 25, 26, 30, 38, 50, 63, 70, 93, 111, 122, 160, 201, 225, 272, 273, 274, 286, 287, 288, 292, 293, 294, 308, 374, 402, 410, 440, 441, 442, 447, 480</p>
<p>MP.5 Use appropriate tools strategically.</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>SE/TE: 12, 13, 25, 122, 128, 286, 287, 288, 292, 293, 294, 308, 402, 410, 440, 441, 442, 447, 480</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 7</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 7</p>
<p>MP.6 Attend to precision.</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>SE/TE: 18, 20, 45, 51, 106, 146, 147, 168, 182, 201, 236, 308, 327, 391, 392, 435, 455, 456, 461, 468, 469, 470, 478, 479, 480, 484, 485, 486, 490, 491, 492</p>
<p>MP.7 Look for and make use of structure.</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>SE/TE: 19, 38, 44, 57, 58, 62, 90, 123, 177, 200, 218, 242, 248, 250, 266, 272, 274, 454</p>
<p>MP.8 Look for and express regularity in repeated reasoning.</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>SE/TE: 99, 182, 200, 206, 207, 218, 219, 220, 225, 403, 404, 470, 475</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 8	enVision Mathematics, ©2021 Grade 8
The Number System NY-8.NS	
Know that there are numbers that are not rational, and approximate them by rational numbers.	
1. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion eventually repeats. Know that other numbers that are not rational are called irrational.	SE: 9–14, 15–20, 75–80 TE: 9A–14B, 15A–20B, 75–80
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line, and estimate the value of expressions.	SE: 21–26, 75–80 TE: 21A–26B, 75–80
Expressions and Equations NY-8.EE	
Work with radicals and integer exponents.	
1. Know and apply the properties of integer exponents to generate equivalent numerical expressions.	SE: 41–46, 47–52, 75–80 TE: 41A–46B, 47A–52B, 75–80
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. Know square roots of perfect squares up to 225 and cube roots of perfect cubes up to 125. Know that the square root of a non-perfect square is irrational.	SE: 27–32, 33–38, 75–80 TE: 27A–32B, 33A–38B, 75–80
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.	SE: 53–58, 75–80 TE: 53A–58B, 75–80
4. Perform multiplication and division with numbers expressed in scientific notation, including problems where both standard decimal form and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities. Interpret scientific notation that has been generated by technology.	SE: 59–64, 69–74, 75–80 TE: 59A–64B, 69A–74B, 75–80

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 8	enVision Mathematics, ©2021 Grade 8
Understand the connections between proportional relationships, lines, and linear equations.	
5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.	SE: 121–126, 151–156 TE: 121A–126B, 151–156
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 .	SE: 127–132, 133–138, 139–144, 145–150, 151–156 TE: 127A–132B, 133A–138B, 139A–144B, 145A–150B, 151–156
Analyze and solve linear equations and pairs of simultaneous linear equations.	
7. Solve linear equations in one variable.	SE: 107–114, TE: 107A–114B
a. Recognize when linear equations in one variable have one solution, infinitely many solutions, or no solutions. Give examples and show which of these possibilities is the case by successively transforming the given equation into simpler forms.	SE: 89–94, 95–100, 101–106, 107–114, 151–156 TE: 89A–94B, 95A–100B, 101A–106B, 107A–114B, 151–156
b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and combining like terms.	SE: 89–94, 95–100, 101–106, 151–156 TE: 89A–94B, 95A–100B, 101A–106B, 151–156
8. Analyze and solve pairs of simultaneous linear equations.	SE: 267–272, 273–278, 281–286, 287–292, 297–300 TE: 267A–272B, 273A–273B, 281A–286B, 287A–292B, 297–300
a. 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. Recognize when the system has one solution, no solution, or infinitely many solutions.	SE: 273–278, 297–300 TE: 273A–273B, 297–300

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 8	enVision Mathematics, ©2021 Grade 8
b. Solve systems of two linear equations in two variables with integer coefficients: graphically, numerically using a table, and algebraically. Solve simple cases by inspection.	SE: 267–272, 281–286, 287–292, 297–300 TE: 267A–272B, 281A–286B, 287A–292B, 297–300
c. Solve real-world and mathematical problems involving systems of two linear equations in two variables with integer coefficients.	SE: 267–272, 273–278, 281–286, 287–292, 297–300 TE: 267A–272B, 273A–273B, 281A–286B, 287A–292B, 297–300
Functions NY-8.F	
Define, evaluate, and compare functions.	
1. 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.	SE: 165–170, 171–176, 207–210 TE: 165A–170B, 171A–176B, 207–210
2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	SE: 177–182, 189–194, 207–210 TE: 177A–182B, 189A–194B, 207–210
3. Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line. Recognize examples of functions that are linear and non-linear.	SE: 177–182, 207–210, 225–230, 231–236, 255–258 TE: 177A–182B, 207–210, 225A–230B, 231A–236B, 255–258
Use functions to model relationships between quantities.	
4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	SE: 189–194, 207–210, 225–230, 231–236, 255–258 TE: 189A–194B, 207–210, 225A–230B, 231A–236B, 255–258
5. Describe qualitatively the functional relationship between two quantities by analyzing a graph. Sketch a graph that exhibits the qualitative features of a function that has been described in a real-world context.	SE: 195–200, 201–206, 207–210 TE: 195A–200B, 201A–206B, 207–210

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 8	enVision Mathematics, ©2021 Grade 8
Geometry NY-8.G	
Understand congruence and similarity using physical models, transparencies, or geometry software.	
1. Verify experimentally the properties of rotations, reflections, and translations:	SE: 309–314, 315–320, 321–326, 327–332, 377–382 TE: 309A–314B, 315A–320B, 321A–326B, 327A–332B, 377–382
a. Verify experimentally lines are mapped to lines, and line segments to line segments of the same length.	SE: 309–314, 315–320, 321–326, 327–332, 377–382 TE: 309A–314B, 315A–320B, 321A–326B, 327A–332B, 377–382
b. Verify experimentally angles are mapped to angles of the same measure.	SE: 309–314, 315–320, 321–326, 327–332, 377–382 TE: 309A–314B, 315A–320B, 321A–326B, 327A–332B, 377–382
c. Verify experimentally parallel lines are mapped to parallel lines.	SE: 309–314, 315–320, 321–326, 327–332, 377–382 TE: 309A–314B, 315A–320B, 321A–326B, 327A–332B, 377–382
2. Know that a two-dimensional figure is congruent to another if the corresponding angles are congruent and the corresponding sides are congruent. Equivalently, two two-dimensional figures are congruent if one is the image of the other after a sequence of rotations, reflections, and translations. Given two congruent figures, describe a sequence that maps the congruence between them on the coordinate plane.	SE: 337–342, 377–382 TE: 337A–342B, 377–382
3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	SE: 309–314, 315–320, 321–326, 327–332, 337–342, 345–350, 351–356, 377–382 TE: 309A–314B, 315A–320B, 321A–326B, 327A–332B, 337A–342B, 345A–350B, 351A–356B, 377–382

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

New York State Next Generation Mathematics Learning Standards Grade 8	enVision Mathematics, ©2021 Grade 8
4. Know that a two-dimensional figure is similar to another if the corresponding angles are congruent and the corresponding sides are in proportion. Equivalently, two two-dimensional figures are similar if one is the image of the other after a sequence of rotations, reflections, translations, and dilations. Given two similar two-dimensional figures, describe a sequence that maps the similarity between them on the coordinate plane.	SE: 345–350, 351–356, 377–382 TE: 345A–350B, 351A–356B, 377–382
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.	SE: 357–364, 365–370, 371–376, 377–382 TE: 357A–364B, 365A–370B, 371A–376B, 377–382
Understand and apply the Pythagorean Theorem.	
6. Explain a proof of the Pythagorean Theorem and its converse.	SE: 395–400, 401–406, 421–424 TE: 395A–400B, 401A–406B, 421–424
7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	SE: 395–400, 401–406, 409–414, 421–424 TE: 395A–400B, 401A–406B, 409A–414B, 421–424
8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.	SE: 415–420, 421–424 TE: 415A–420B, 421–424
Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	
9. Given the formulas for the volumes of cones, cylinders, and spheres, solve mathematical and real-world problems.	SE: 433–438, 439–444, 447–452, 453–458, 463–466 TE: 433A–438B, 439A–444B, 447A–452B, 453A–458B, 463–466
Statistics and Probability NY-8.SP	
Investigate patterns of association in bivariate data.	
1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	SE: 219–224, 255–258 TE: 219A–224B, 255–258

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 8</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 8</p>
<p>2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.</p>	<p>SE: 225–230, 255–258 TE: 225A–230B, 255–258</p>
<p>3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept.</p>	<p>SE: 231–236, 255–258 TE: 231A–236B, 255–258</p>
<p>Math Practices</p>	
<p>MP.1 Make sense of problems and persevere in solving them.</p>	<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>SE/TE: 92, 93, 126, 150, 192, 204, 235, 243, 320, 330, 413, 438, 443, 444, 457</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 8</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 8</p>
<p>MP.2 Reason abstractly and quantitatively.</p>	<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>SE/TE: 14, 18, 20, 24, 50, 74, 98, 104, 112, 113, 130, 137, 180, 194, 224, 248, 276, 286, 319, 324, 326, 340, 348, 355, 374, 419, 438, 442</p>
<p>MP.3 Construct viable arguments and critique the reasoning of others.</p>	<p>Consistent with a focus on reasoning and sense-making is a focus on critical reasoning—argumentation and critique of arguments. In enVision 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>SE: 18, 19, 24, 30, 32, 36, 38, 46, 51, 56, 58, 62, 73, 111, 113, 132, 150, 169, 174, 193, 200, 228, 248, 271, 276, 284, 286, 290, 340, 349, 374, 375, 398, 437</p>
<p>MP.4 Model with mathematics.</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>SE/TE: 26, 46, 94, 98, 99, 125, 137, 138, 143, 148, 149, 168, 174, 175, 176, 193, 204, 205, 206, 222, 223, 242, 276, 277, 278, 292, 312, 313, 318, 319, 320, 331, 341, 342, 349, 354, 355, 356, 406, 418</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 8</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 8</p>
<p>MP.5 Use appropriate tools strategically.</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>SE/TE: 94, 144, 148, 149, 174, 175, 176, 204, 205, 206, 223, 276, 277, 278, 312, 313, 318, 319, 320, 341, 342, 354, 355, 356</p>
<p>MP.6 Attend to precision.</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>SE/TE: 12, 25, 31, 36, 56, 57, 286, 354, 361, 362, 363, 364, 368, 369, 370, 375, 376, 399, 400, 404, 405, 406, 419, 436, 437, 438, 442, 443, 444, 450, 451, 452, 456, 457, 458</p>
<p>MP.7 Look for and make use of structure.</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>SE/TE: 12, 52, 72, 93, 99, 104, 105, 111, 136, 148, 169, 170, 198, 242, 270, 285, 361, 398, 404, 412, 450</p>

**A Correlation of enVision Mathematics, ©2021
To the New York State Next Generation Mathematics Learning Standards**

<p style="text-align: center;">New York State Next Generation Mathematics Learning Standards Grade 8</p>	<p style="text-align: center;">enVision Mathematics, ©2021 Grade 8</p>
<p>MP.8 Look for and express regularity in repeated reasoning.</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>SE/TE: 31, 45, 51, 63, 131, 250, 291, 330, 399, 405, 413, 457</p>