

Our Lady of the Lake Roman Catholic School
Yearly Course Outline
Advanced Math
Sixth Grade
2026–2027

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Course Description

The 6th Grade Advanced Math course builds upon foundational skills from earlier grades and prepares students for more advanced mathematical concepts. This course emphasizes the development of proportional reasoning, algebraic thinking, and problem-solving skills in real-world contexts.

Students will deepen their understanding of mathematical operations, explore abstract thinking through algebra and equations, and analyze data using statistics and probability. The curriculum encourages inquiry, logical reasoning, and effective communication of mathematical ideas.

Major Units of Study:

- **Ratios and Proportional Relationships:** Solving multi-step ratio and percent problems, including markups, discounts, tax, and tips.
- **Number Systems:** Applying operations with rational numbers, including integers, decimals, and fractions.
- **Expressions and Equations:** Writing, evaluating, and solving algebraic expressions and linear equations and inequalities.
- **Geometry:** Solving problems involving scale drawings, angle relationships, area, surface area, and volume.
- **Statistics and Probability:** Analyzing data distributions and calculating probability of simple and compound events.

Instructional Materials

enVision Mathematics - Grade 7

IXL

Methods of Assessment and Distribution

All test, quiz, and homework grades will be posted on PowerSchool (www.ollpowerschool.org). Please check for postings frequently. Each quarter, four test-, four quiz-weighted assessments will be administered.

Students admitted to 6th Grade Advanced Math will be required to complete a summer packet. The expectation is that they work on this packet over the summer and turn it in to you on the first day of class. The intention is to help them practice/develop skills that will smooth their transition from 5th math into 6th advanced math (i.e., 7th math).

1st & 2nd Quarters (Exams taken)

50% Tests
20% Exams
20% Quizzes
10% Homework

3rd & 4th Quarters (No Exams taken)

60% Tests
30% Quizzes
10% Homework

Grading Scale

A: 100-90
B: 89-80
C: 79-70
D: 69-60
U: 59 and below

Tentative Course Calendar

**** Dates and course content are subject to change at discretion of teacher or administration. ****

Aug 6 – First day of school for 4th – 7th

Week	Standards	Objectives (The learner will . . .)	Instructional Materials	Assessments
1st Quarter				
Week 1 Aug. 10-14	7.NS.A.1a 7.NS.A.1b 7.NS.A.1c 7.NS.A.1d 7.NS.A.2d	1.1 - 1.4 -Understand how integers and their opposites are related. -Identify rational numbers and write them in decimal form. -Add positive and negative integers. -Model integer addition in real-life applications. -Understand subtraction of integers as adding the additive inverse, $p - q = p + (-q)$	enVision Mathematics (7th Grade)	-Homework
Week 2 Aug. 17-21 8/18 PTCC Mtg 6pm	7.NS.A.1a 7.NS.A.1b 7.NS.A.1c 7.NS.A.1d 7.NS.A.2a 7.NS.A.2c 7.NS.A.2d	1.5 - 1.6, Quiz -Use properties of operations to add and subtract rational numbers. -Multiply positive and negative integers. -Apply integer multiplication to real-life applications.	enVision Mathematics (7th Grade)	-Homework -Topic 1 Quiz (lessons 1-5)
Week 3 Aug. 24-28	7.NS.A.2a 7.NS.A.2b 7.NS.A.2c	1.7 - 1.9 -Find the product of rational numbers. -Understand how to divide integers by applying the rules of multiplying integers. -Determine equivalencies among integer quotients. -Understand how the signs of integers in a multiplication sentence relate to the signs in a related division statement.	enVision Mathematics (7th Grade)	-Homework
Week 4 Aug 31-Sept 4	7.NS.A.1a 7.NS.A.1b 7.NS.A.1c 7.NS.A.1d 7.NS.A.2a 7.NS.A.2b 7.NS.A.2c 7.NS.A.2d 7.NS.A.3 7.EE.B.3	1.10, Math Modeling (quiz), Test -Decide which operations to use to solve problems. -Use precision when solving problems with rational numbers. -Use mathematical modeling to represent a problem situation and to propose a solution. -Test and verify the appropriateness of their math models.	enVision Mathematics (7th Grade)	-Homework -Math Modeling (quiz) -Topic 1 Test: Integers and Rational Numbers
Week 5 Sept. 7-11 9/7 Labor Day No School	7.RP.A.1 7.RP.A.2a 7.RP.A.3	2.1 - 2.3, Project due (test) -Use ratios and rates to describe the relationship between two quantities. -Find equivalent ratios and use unit rates to solve multi-step problems. -Find unit rates with ratios of fractions. -Use unit rates to solve multi-step problems.	enVision Mathematics (7th Grade)	-Homework -Project due (test)

		-Determine whether quantities are proportional by testing for equivalent ratios.		
Week 6 Sept. 14-18 Spirit Week 9/18 Pep Rally and Fun Run Kickoff	7.RP.A.2b 7.Rp.A.2c	2.4 -Use the constant of proportionality to write equations that represent proportional relationships. -Use equations to solve problems involving proportional relationships.	enVision Mathematics (7th Grade)	-Homework
Week 7 Sept. 21-25 9/25 Birthday Brunch (July, Aug, Sept)	7.RP.A.1 7.RP.A.2 7.RP.A.2a 7.RP.A.2b 7.RP.A.2c 7.RP.A.2d 7.RP.A.3	Quiz, 2.5 - 2.6 -Use a graph to recognize proportionality. -Identify a constant of proportionality from a graph. -Interpret a point on a graph of a proportional relationship. -Explain whether a situation represents a proportional relationship. -Use representations to find entry points into problems.	enVision Mathematics (7th Grade)	-Homework -Topic 2 Quiz (lessons 1-4)
Week 8 Sept.28- Oct. 2 10/2 – Fun Run 10/2 - ½ day dismissal	7.RP.A.1 7.RP.A.2 7.RP.A.2a 7.RP.A.2b 7.RP.A.2c 7.RP.A.2d 7.RP.A.3	Test, Project due (test)	enVision Mathematics (7th Grade)	-Topic 2 Test: Analyze and Use Proportional Relationships -Project due (test)
Week 9 Oct. 5-9 10/6-10/8 – Middle School Exams 10/8 End of 1 st Qtr 10/9 No School 10/9-10/11 Festival of the Lake		Math Exam		-MathLab due (quiz grade) -Exam over Topic 1 & Topic 2
2nd Quarter				
Week 10 Oct. 12-16 10/13 Living Rosary 10/15 CFR Reward Day 10/15 - ½ Day 10/15 - Parent Teacher Conferences 10/16 – No School	7.RP.A.2c 7.RP.A.3	3.1 - 3.3 -Understand that equivalent rates can be used to find percents. -Analyze percents of numbers in a real-world context. -Construct a percent proportion. -Use a percent proportion to find an unknown part, whole, or percent. -Understand the relationship between proportional reasoning and percent. -Interpret the results of a percent equation in a real-life scenario.	enVision Mathematics (7th Grade)	-Homework
Week 11 Oct. 19-23	7.RP.A.2c 7.RP.A.3	Quiz, 3.4 -Solve real-world problems involving percent change and percent error. -Understand the percent equation and the different ways it can be used.	enVision Mathematics (7th Grade)	-Homework -Topic 3 Quiz (lessons 1-3)
Week 12 Oct. 26-30 Red Ribbon Week	7.RP.A.3	3.5 -Understand and calculate markups and markdowns.	enVision Mathematics (7th Grade)	-Homework

		-Relate percent change to percent markup and percent markdown.		
Week 13 Nov. 2-6	7.RP.A.2c 7.RP.A.3	3.6, Test -Identify the parts of interest problems and how the values are related. -Understand what simple interest is and how it is calculated.	enVision Mathematics (7th Grade)	-Homework -Topic 3 Test: Analyze and Solve Percent Problems
Week 14 Nov. 9-13 11/11 Veterans Day Prayer Service	7.EE.A.1 7.EE.B.3 7.EE.B.4	4.1 - 4.3, Project due (test) -Understand how variables are used to represent unknown values in problems. -Recognize when two expressions are equivalent. -Use properties of operations to write equivalent expressions. -Combine like integer and rational terms.	enVision Mathematics (7th Grade)	-Homework -Project due (test)
Week 15 Nov. 16-20 St. Nick's Workshop	7.EE.A.1 7.EE.A.2 7.EE.B.3 7.EE.B.4	4.4 - 4.5, Quiz -Use the Distributive Property to expand expressions. -Understand expanding an expression is the reverse of factoring. -Identify the GCF of algebraic terms in expressions.	enVision Mathematics (7th Grade)	-Homework -Topic 4 Quiz (lessons 1-5)
Thanksgiving Holidays Nov. 23-27				
Week 16 Nov 30-Dec 4 12/4 Birthday Brunch (Oct, Nov, Dec)	7.EE.A.1 7.EE.A.2	4.6 - 4.7 -Use properties of operations to add expressions. -Model addition of expressions in real-life applications. -Use properties of operations to subtract expressions. -Model subtraction of expressions in real-life applications.	enVision Mathematics (7th Grade)	-Homework
Week 17 Dec. 7-11	7.EE.A.1 7.EE.A.2 7.EE.B.3 7.EE.B.4	4.8, Test, Project due (test) -Write equivalent expressions to show how quantities are related in real-life applications.	enVision Mathematics (7th Grade)	-Homework -Topic 4 Test: Generate Equivalent Expressions -Project due (test)
Week 18 Dec. 14-18 12/15-12/17 – Middle School Exams 12/18 - ½ day End of 2nd Qtr		Math Exam		-MathLab due (quiz grade) -Exam over Topic 1 & Topic 2
Christmas Holidays Dec. 21 – Jan. 4				
3rd Quarter				
Week 19 Jan. 4-8 ¼ - No School	7.EE.B.3 7.EE.B.4 7.EE.B.4a	5.1 - 5.3 -Analyze word problems to write two-step equations.	enVision Mathematics (7th Grade)	-Homework

		-Understand the relationship between the terms of the equation and the values they represent. -Use models to solve two-step equations. -Compare algebraic and arithmetic solutions. -Solve equations using the Distributive Property.		
Week 20 Jan. 12-16	7.EE.B.3 7.EE.B.4 7.EE.B.4a 7.EE.B.4b	Quiz, 5.4 -Graph the solution of inequalities on a number line. -Solve inequalities using the Addition and Subtraction Properties of Inequality.	enVision Mathematics (7th Grade)	-Homework -Topic 5 Quiz (lessons 1-3)
Week 21 Jan. 18-22 1/18 – MLK Day No School 1/22 Birthday Brunch (Jan, Feb, Mar)	7.EE.B.3 7.EE.B.4 7.EE.B.4b	5.5 - 5.6, Math Modeling (quiz) -Write inequalities and solve them using Multiplication and Division Properties of Inequality. -Graph the solutions of an inequality on a number line. -Write and solve a two-step inequality to solve a problem. -Solve an inequality by multiplying or dividing by a negative rational number. -Use mathematical modeling to represent a problem situation and to propose a solution. -Test and verify the appropriateness of their mathematical models.	enVision Mathematics (7th Grade)	-Homework -Math Modeling (quiz)
Week 22 Jan. 25-29 1/29 - Pep Rally 1/29 – Eve Parade	7.EE.B.3 7.EE.B.4 7.EE.B.4a 7.EE.B.4b	5.7, Test -Explore the relationship between two-step inequalities and multi-step inequalities. -Apply the Distributive Property to simplify and solve multi-step inequalities.	enVision Mathematics (7th Grade)	-Homework -Topic 5 Test: Solve Problems Using Equations and Inequalities
Week 23 Feb. 1-5 Catholic Schools Week 2/5 Grandparents Day 2/5 – ½ Day	7.SP.A.1 7.SP.A.2 7.RP.A.2c 7.EE.B.3	6.1 - 6.2, Project due (test) -Distinguish between a population and a sample. -Establish whether a sample is representative of a population. -Generate random samples. -Make qualitative inferences from a simple data set. -Make qualitative inferences from a sample data set. -Make estimates about a population based on a sample data set, and assess whether the inferences are valid.	enVision Mathematics (7th Grade)	-Homework -Project due (test)
Mardi Gras Holiday February 8-12				
Week 24 Feb. 15-19	7.SP.A.1 7.SP.A.2 7.SP.B.3 7.SP.B.4 7.RP.A.2c	Quiz, 6.3 - 6.4 -Use box plots to compare and make inferences about populations. -Use the median and IQR of datasets to informally compare and make inferences about two populations.	enVision Mathematics (7th Grade)	-Homework -Topic 6 Quiz (lessons 1-2)

	7.EE.B.3	-Use the mode, range, mean, and MAD to compare populations.		
Week 25 Feb. 22-26	7.SP.A.1 7.SP.A.2 7.SP.B.3 7.SP.B.4 7.RP.A.2c 7.EE.B.3 7.SP.C.5 7.EE.B.3	Test, 7.1 -Use probability to describe the likelihood that an event will occur. -Relate probability to mathematical fairness.	enVision Mathematics (7th Grade)	-Homework -Topic 6 Test: Use Sampling to Draw Inferences About Populations
Week 26 March 1-5 Book Fair	7.SP.C.6 7.SP.C.7 7.SP.C.7a 7.SP.C.7b 7.RP.A.2c 7.EE.B.3	7.2 - 7.4, Project due (test) -Understand theoretical probability and how it can be used. -Use theoretical probability to predict an outcome. -Compare theoretical and experimental probability. -Use experimental probability to make predictions. -Explain differences between theoretical and experimental probability. -Develop a probability model. -Use a probability model to evaluate a situation. -Use a probability model to make an estimate.	enVision Mathematics (7th Grade)	-Homework -Project due (test grade)
Week 27 March 8-12 3/12 – ½ Day End of 3 rd Qtr	7.SP.C.5 7.SP.C.6 7.SP.C.7 7.SP.C.7a 7.SP.C.7b 7.SP.C.8b 7.RP.A.2c 7.EE.B.3	Quiz, 7.5 -Use a tree diagram, a table, or an organized list to represent the sample space for a compound event.	enVision Mathematics (7th Grade)	-MathLab due (quiz grade) -T7 Quiz (counts for 4th Q)
4th Quarter				
Week 28 March 15-19 3/18 - Passion Play	7.SP.C.5 7.SP.C.6 7.SP.C.7 7.SP.C.7a 7.SP.C.7b 7.SP.C.8a 7.SP.C.8b 7.SP.C.8c 7.RP.A.2c 7.EE.B.3	7.6 - 7.7, Project due (test), Test -Organize information about a compound event on a table, a tree diagram, or an organized list. -Find the probability of a compound event. -Use different tools to simulate a compound event. -Model a real-world situation involving a compound event and predict its outcomes using a simulation.	enVision Mathematics (7th Grade)	-Homework -Project due (test grade) -Topic 7 Test: Probability
Week 29 March 22-26 3/26 - Good Friday	7.G.A.1 7.G.A.2 7.G.B.4 7.G.B.5 7.EE.B.4a	8.1 - 8.4 -Use a scale drawing as a representation of actual lengths and area. -Sketch quadrilaterals with given conditions.	enVision Mathematics (7th Grade)	-Homework

		-Name and classify quadrilaterals according to their properties. -Construct triangles with given conditions. -Conclude whether or not a triangle is formed and what type of triangle it is. -Calculate the measures of angles by using angle relationships.		
Easter Holiday March 26 – April 2				
Week 30 April 5-9	7.G.A.1 7.G.A.2 7.G.B.4 7.G.B.5 7.EE.B.3 7.EE.B.4a	8.5 - 8.6, Quiz -Calculate the circumference, radius, or diameter of a circle. -Recognize the relationship between the circumference and the diameter of a circle and pi. -Find the area of a circle. -Use the area to find the radius and diameter. -Solve problems involving the area of a circle.	enVision Mathematics (7th Grade)	-Homework -Topic 8 Quiz
Week 31 April 12-16	7.G.A.3 7.G.B.6 7.NS.A.3 7.EE.B.3 7.EE.B.4a	8.7 - 8.9 -Describe cross sections of right rectangular prisms and pyramids. -Solve problems involving cross sections. -Find the surface area of two-dimensional composite shapes. -Find the surface area of three-dimensional composite shapes. -Calculate the volume of various three-dimensional figures. -Solve problems involving the volume of three-dimensional figures.	enVision Mathematics (7th Grade)	-Terra Nova Practice (test grade) -Homework
Week 32 April 19-23 4/23 Birthday Brunch (Apr, May, June)	7.G.A.1 7.G.A.2 7.G.A.3 7.G.B.4 7.G.B.5 7.G.B.6 7.NS.A.3 7.EE.B.3 7.EE.B.4a	Test	enVision Mathematics (7th Grade)	-MAP IXLs Practice (quiz grade) -Topic 8 Test: Solve Problems Involving Geometry
Week 33 April 26 - 30 4/30 - Field Day ½ Day		Projects due	enVision Mathematics (7th Grade)	-MathLab due (quiz grade) -Project due (test)
Week 34 May 3-7 5/4 May Crowning 5/6 – 7 th Closing Ceremony		7th Grade done		
Week 35 May 10-14		7th Grade done		

Week 36 May 17-21 5/19 – Grades Due		7th Grade done		
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