

MA 3111 : Advanced Mathematics 7

Advanced Mathematics 7 is a course for seventh grade students that extends concepts and skills learned in Advanced Math 6 and prepares students for more abstract concepts in algebra and geometry. The course focuses on computation with rational numbers and the use of proportions to solve a variety of problems. Facility in the use of technology will not be a substitute for students' understanding of quantitative concepts and proficiency in basic computations. The course objectives provide a solid foundation for Algebra I.

Subject Area

Mathematics

Level

Middle School

Parent Docs

[Advanced Mathematics 7 Parent Doc 2021-2022](#)

Storyboard

Essential Questions: How do I become a mathematical problem solver to better understand the world around me?
In what ways can I communicate and represent my mathematical thinking?

Equations and Inequalities: How would you organize?

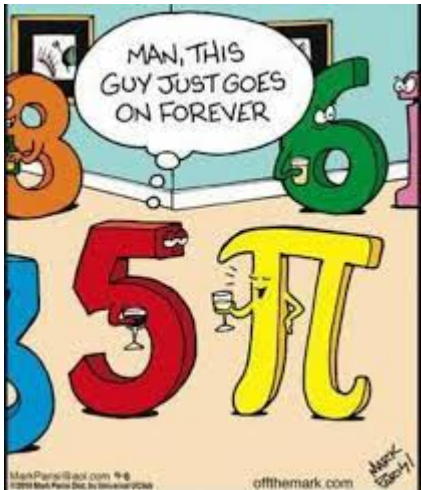
Number and Number Sense:

Unit 2 (6 weeks)

Don't be Irrational

Unit 1 (5 weeks)

Pacing



How do I apply my current understanding of number sense to incorporate irrational numbers?

How do I apply previous knowledge of equations and inequalities to multi-step situations?

Focus of the Story

Our journey begins with the discovery of how to compare, order, and organize numbers into subsets of the real number system. We also evaluate and simplify algebraic expressions.

Next we use real numbers with variables to navigate combining like terms. We explore single solutions and solution sets using the distributive property to solve equations and inequalities.

Transfer Goals	• Apply: Utilize efficient strategies, processes, and tools to model new situations and/or real world experiences. • Explain: Communicate mathematical thinking by justifying solutions using multiple representations while attending to precision.	• Explain: Communicate mathematical thinking by justifying solutions using multiple representations while attending to precision.
	I can describe, classify, and illustrate relationships among the subsets of the real number system.	
Learning Targets	I can determine positive and negative square roots and estimate square roots.	I can solve multi-step equations including practical problems..
	I can compare and order real numbers.	I can solve and graph two-step and multi-step inequalities including practical problems.
	I can identify and describe the absolute value of rational numbers.	I can identify the independent and dependent variables in practical situations.
	I can evaluate and simplify algebraic expressions.	