

LJMS Math Options Presentation 2024



Grade 7 Mathematics Course Options

Mathematics 7
7th grade standards

Mathematics 7 Honors

Pre-Algebra standards +
extensions

(Open access)

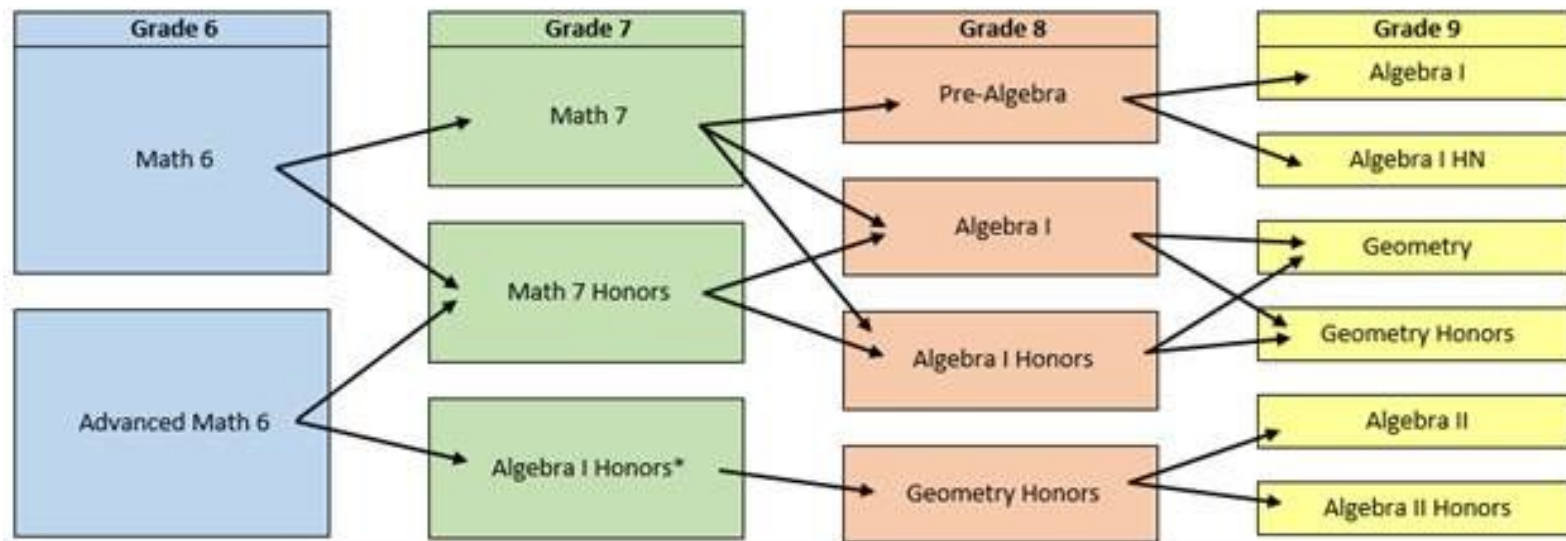
Algebra I Honors
criteria:

- Advanced Math in 6th grade,
- 500+ on 7th grade SOL, and
- 91st percentile on Iowa Algebra Aptitude Test

(Algebra I is a high school credit course.)

Math Course Sequence

Mathematics Course Sequence



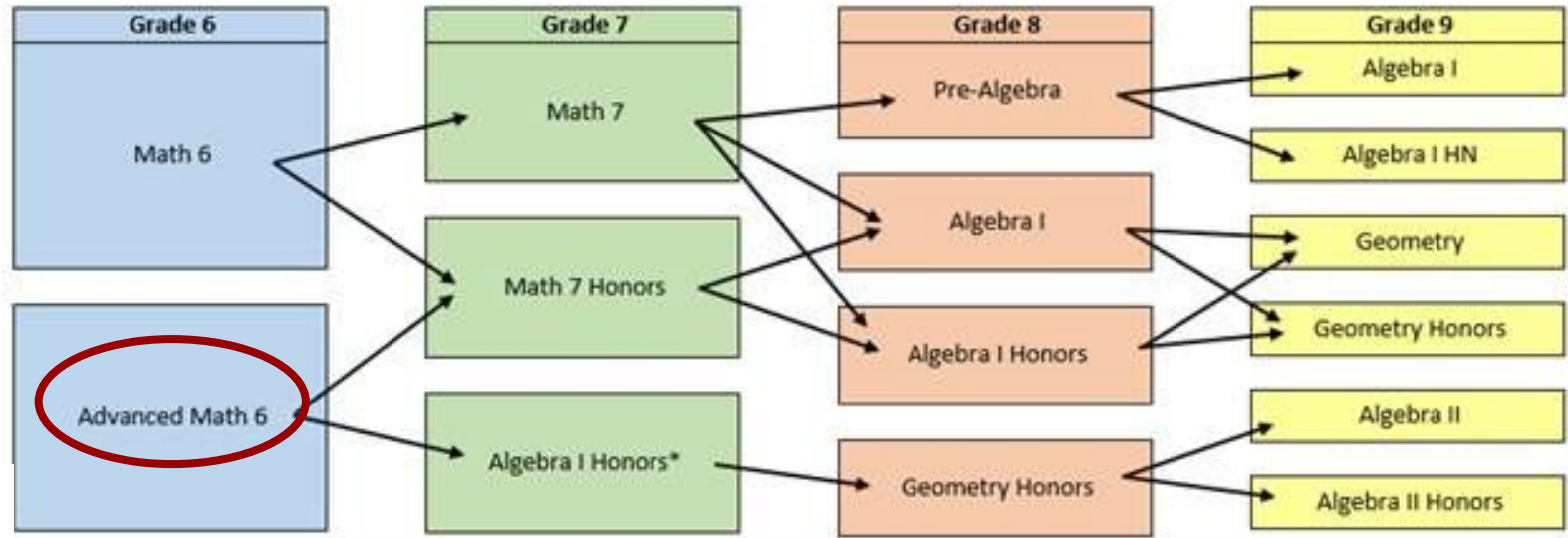
Grade 7 Mathematics

- **Math 7** - a curriculum which considers the foundations of Algebra and emphasizes the concept of and operations with rational numbers. The content covers the Math 7 SOLs.
- **Math 7 Honors** - A more rigorous approach to a pre-algebra curriculum with an emphasis on problem solving. It is correlated to the 8th grade Math SOLs, but contains extensions and enrichment opportunities. Prepares students for Algebra I Honors or Algebra 1 in grade 8.
- **Algebra I Honors** - A fast-paced approach to Algebra I, a high school credit course, which includes many extensions to the Algebra I SOLs.



Current Advanced Math 6 Students: Move to Math 7 Honors or Algebra 1 Honors?

Mathematics Course Sequence



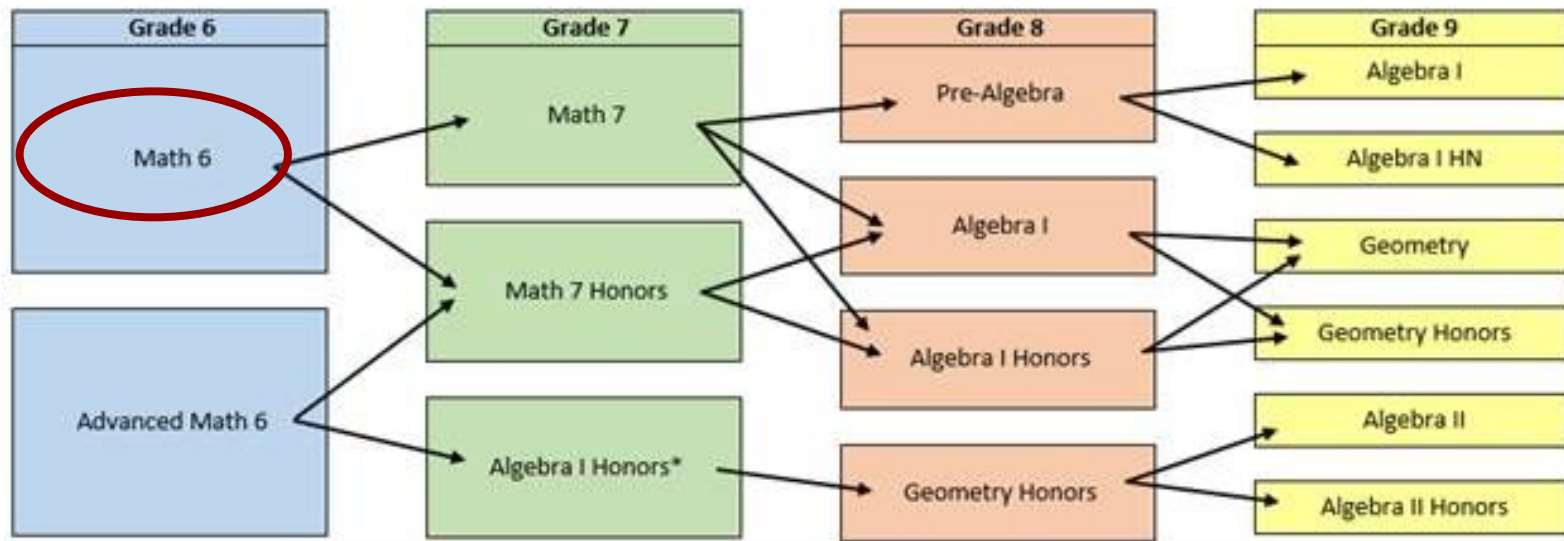
Algebra 1 Honors Criteria (Grade 7)

- ▶ 91st percentile or higher on the IAAT
- ▶ Pass Advanced on the Math 7 SOL (500 +)
- ▶ Completion of Advanced Math 6
- ▶ All students are placed in Math 7 Honors until all scores and final marks are received
- ▶ Placement decisions occur over the summer – Parents notified in Mid-July if their child will be placed in Algebra 1 Honors.



Current Math 6 Students Move to Math 7 or Math 7 Honors?

Mathematics Course Sequence



7th grade Math Information

Math 7

- On Grade Level
- Prepares students for Pre-Algebra or Algebra I
- Takes Math 7 SOL

Math 7 HN

- Pre-Algebra (aka Math 8) standards + extensions
- Prepares students for Algebra I or Algebra I Honors
- Takes Pre-Algebra SOL (8th grade math)

Algebra I HN

- Criteria include (1) taking advanced math in 6th grade; (2) a score of 91% on the IAAT, and (3) scoring Passed Advanced on the Math 7 SOL
- Is a high school credit course
- Students take Geometry Honors as 8th graders
- Takes Algebra SOL



Who should consider moving from Math 6 to Math 7 HN?

- Student who has the goal of taking Alg 1 in 8th grade
 - Alg 1 Honors in 8th grade is needed to apply to TJ
- Student who is performing well in Math 6 and has passed or shown growth trends in previous Math SOLs
- Student whose 6th grade math teacher recommends Math 7 HN
- Student who is motivated and willing to work hard



Why take Math 7 HN and Alg 1 Honors?

- Content is more closely aligned with the Algebra content
- Opportunity to take an honors course which is not a high school credit course
- Supports are in place to support students moving from Math 6 to Math 7 Honors including:
 - Advisory support class
 - Summer Bridge program
- Earlier participation in Algebra allows students additional time to take higher level math courses
- Increases access to college and career opportunities, particularly in STEM fields
- May allow for more academy classes opportunities in high school
- Math advisory support class for those who need it

Algebra Readiness Skills included in Math 7 Honors (not in Math 7):

- Combining Like Terms
- The Distributive Property
- Solving Multi-step Equations
- Solving Multi-step Inequalities
- Graphing Linear Equations
- Literal Equations
- Simplifying Radicals
- Laws of Exponents
- Line of Best Fit



Comparison of 3 Levels

Math 7

$$\frac{h}{2} + 5 = 27$$

Answer has one solution

Math 7 Honors

$$2(4x - 3) - 8 = 4 + 2x$$

Answer has one solution

Algebra Honors

$$3(x+1) + 1 + 2x = 2(2x+2) + x$$

Answer has *infinite solutions*

$$(8 - 7)^2 \cdot 3 + 8 \div (-2)$$

Students learn Order of Operations in Math 7 that include negative numbers

$$\frac{-3[2^2 + (3 \cdot 6)]}{\sqrt{25} + (12 \div -2)}$$

Order of Operations with negative numbers is assumed prior knowledge, students start incorporating square roots, cubes, absolute value, and nesting

$$\frac{\sqrt[3]{-216} \cdot [10 + (\sqrt{16} - 22)]^3}{8^2}$$

*Math 7 and PreAlgebra is assumed prior knowledge; students begin incorporating positive and negative cube roots