

Middle School Math Course Selection

FAQ 2021

(Frequently Asked Questions)

1. Paths for Math Courses
 - 1.1. [What are the 3 usual paths students take in middle school math?](#)
 - 1.2. [Can my child try Grade 6 Pre-algebra then change classes?](#)
 - 1.3. [What is the advantage of my child taking Algebra I in grade 7 or grade 8?](#)
 - 1.4. [What are the disadvantages of taking Algebra I in grade 7 or grade 8?](#)
 - 1.5. [What are the differences between the three pre-algebra classes \(Gr 6, 7, 8\)?](#)
 - 1.6. [Will Middle School Algebra I and Geometry appear on my child's CHS transcript?](#)
2. Changing Courses or Paths
 - 2.1. [What are my options if my child is struggling in Grade 6 Pre-algebra?](#)
 - 2.2. [What are my options if my child is struggling in Gr. 7 or Gr. 8 Algebra I?](#)
 - 2.3. [How late in the school year can my child change courses?](#)
 - 2.4. [Whom do I tell if I want to change my child's math class?](#)
3. Student Readiness
 - 3.1. [How do I know if my 5th grader is ready for Grade 6 Pre-algebra?](#)
 - 3.2. [How do I know if my 7th or 8th grader is ready for Algebra I?](#)
 - 3.3. [How do I know if my child should change courses during the school year?](#)
4. Summer and Coming Back from Virtual Instruction
 - 4.1. [How much math did my child miss during virtual instruction?](#)
 - 4.2. [What middle school math courses are being offered this summer?](#)
 - 4.3. [How will you help students return to "normal" after a year of virtual instruction?](#)
5. Looking Ahead to CHS Math Classes
 - 5.1. [Which middle school math classes get my child to Calculus by 12th grade?](#)
 - 5.2. [How can my child advance one year of math at CHS?](#)
 - 5.3. [What math classes are a prerequisite for other classes?](#)
 - 5.4. [What is the graduation requirement for math classes?](#)
 - 5.5. [What are the usual paths for math courses at CHS?](#)
6. Grades 6-12 Math Courses
 - 6.1. [Chart of Math Courses Grades 6-12.](#)

1. Paths for Math Courses

1.1 What are the 3 usual paths students take in middle school?

- Grade 6 Math-> Grade 7 Math-.Grade 8 Pre-Algebra
- Grade 6 Math ->Grade 7 Pre-algebra->Grade 8 Algebra I (most popular)
- Grade 6 Pre-algebra->Algebra I->Geometry

1.2 Can my child try Grade 6 Pre-algebra then change classes?

- Yes. If your child finds 6 Pre-algebra too hard the student can change to Grade 6 Math at any point in the year. Some students earn a C or C+ in Grade 6 Pre-algebra but do not feel fully ready for Algebra I in Grade 7. These students can take Grade 7 Pre-algebra (instead of Algebra I) which teaches the Grade 7 Math Standards and some Grade 8. Then they are ready for Algebra I in Grade 8.

1.3 What is the advantage of my child taking Algebra I in grade 7 or grade 8?

- If your child takes Algebra I in middle school, the student will be able to get to Calculus in high school without taking any additional actions or extra courses to move ahead. Some colleges prefer to see Calculus on a high school transcript, others do not have a preference. Another advantage is middle school grades do not appear on a CHS transcript. This means students can retake a course with no penalty if needed.

1.4 What are the disadvantages of taking Algebra I in grade 7 or grade 8?

- Algebra I is the most important course to prepare students for later math courses. Taking Algebra I before a student is ready for the abstract reasoning can be frustrating and turn the student off from math.

1.5 What are the differences between the three pre-algebra classes (Gr 6, 7, 8)?

- Grade 6 Pre-algebra contains all Grade 6 and Grade 7 math content and standards.
- Grade 7 Pre-algebra contains all Grade 7 math content and standards plus some grade 8.
- Grade 8 Pre-algebra contains Grade 8 standards, and the content is a foundational introduction to Algebra I concepts such as radicals, functions, and linear equations.

1.6 Will Middle School Algebra I and Geometry appear on my child's high school transcript?

- No. No courses taken in the middle school appear on a student's high school transcript.
- Only courses taken at Columbia High School appear on a student's CHS transcript.

2. Changing Courses or Paths

2.1 What are my options if my child is struggling in Grade 6 Pre-algebra?

- A child who is struggling in Gr. 6 Pre-algebra can move into regular Grade 6 Math at any time during the year.
- A child who is struggling but passing can choose to stay in Grade 6 Pre-algebra and then take Grade 7 Pre-algebra the following year. This helps the student master important concepts to be ready for Algebra I in Grade 8.

2.2 What are my options if my child is struggling in Gr. 7 or Gr. 8 Algebra I?

- A 7th grader who is struggling in Algebra I can move into Grade 7 Pre-algebra at any time during the year.
- An 8th grader who is struggling in Algebra I can move into Grade 8 Pre-algebra at any time during the year.
- A student who is struggling in Algebra I can choose to retake the course to learn it better. Grade 7 students can retake Algebra I in grade 8. Grade 8 students can retake Algebra I at CHS in the summer before Grade 9 or during Grade 9. Only courses at CHS appear on the CHS transcript.

2.3 How late in the school year can my child change courses?

- For MOST math courses students can change into another course at any time during the year.
- To move into Algebra I or Geometry, the move should occur in the first month of school. These 2 courses are state and district graduation requirements. It is important that students take the entire course and not miss parts of it.

2.4 Whom do I tell if I want to change my child's math class?

- You should first talk to your child's math teacher to see if he/she is seeing the same issues you are. You can also contact the guidance counselor, the principal, or Ms. Beane the math and science supervisor.

3. Student Readiness

3.1 How do I know if my 5th grader is ready for Grade 6 Pre-algebra next year?

- You can talk to your child's 5th grade math teacher to get their insights about your child's strengths and areas to work on.
- Students who are most successful in Grade 6 Pre-algebra tend to be fluent in all reasoning with fractions (equivalence, number line comparisons, conversions among different denominators or decimal form, mixed numbers, all computation with fractions, mixed numbers, and decimals). If your child consistently scored a 4 in math, they are likely ready to try Grade 6 Pre-algebra. If they scored a 3, it depends on which content they know well.

3.2 How do I know if my 6th or 7th grader is ready for Algebra I next year?

- Talk to your child's 6th grade math teacher to get their insights about your child's strengths and areas to work on.
- Students who are most successful in Algebra I tend to be fluent in proportional reasoning, finding line of best fit, equations with two variables, equations with variables on both sides of the equation, and fluency with computation and order of operations with all rational numbers (positive and negative numbers, fractions, decimals).
- If your child is currently earning a 90% or higher in Grade 6 Pre-algebra or Grade 7 Pre-algebra, they should definitely select Algebra I for next year.

3.3 How do I know if my child should change courses during the school year?

- If your child's average is below 75%/C, you should consider what option is best for your child. When a child consistently scores 75% or lower, we recommend that the student retake the course the following year. The final decision must be individualized based on why the student is scoring below 75%.

4. Summer and Coming Back from Virtual Instruction

4.1 How much math did my child miss during virtual instruction?

- From September-April, all math classes (gr. 5-8) have maintained the same pacing as a “normal” school year. We have taught the same units that we have always taught at this point in the year. Since we had to teach differently this year, your child may not have learned the concepts as well as other years. Mastery will be different for each child.

4.2 What middle school math courses are being offered this summer?

- Middle School Summer Math Courses will be different this year. In response to a year of virtual instruction, the district will implement a different summer program for any students who feel they have missed some math or ELA content this year. This program will be different than Summer Math Boosters of the past.
- The District will announce the 2021 summer programs and open enrollment in May. The summer program will take place during the month of July. Scholarships are available for financial hardship.
- The Middle School Math Department will also offer independent (online and practice packet) work for students who are not interested or able to take the summer course.

4.3 How will you help students return to “normal” after a year of virtual instruction?

- The middle school math department is aware that students may not retain or recall as much information as in the past. We will use the first two weeks to review skills from the previous course as well as reintroduce students to the expectations and pacing of the regular math classroom.
- Prior to each unit middle school math teachers will spend 1-2 days reteaching the prerequisite concepts needed for the upcoming unit. This will help students have relevant previous learning easily accessible in their minds.

5. Looking Ahead to CHS Math Classes

5.1 Which middle school math classes get my child to Calculus by 12th grade?

- There are paths to Calculus no matter what math courses a student takes in middle school. Some paths require students to take a summer course for credit OR take two math classes at the same time (Geometry and Algebra II).
- If your child successfully passes Algebra I while in middle school, the student will get to Calculus at CHS without taking a summer course or taking two math courses in one year.
- Some universities look for Calculus as a sign of rigor, other universities do not give it special attention.

5.2 How can my child advance one year of math at CHS?

- CHS offers 3 summer courses for full credit: Algebra I, Geometry, and Algebra II. If a student passes one of these courses during the summer, the student can advance to the next math course during the school year.
- Students can take Geometry and Algebra II at the same time. The second math class is an elective the student chooses in 10th grade.
- Students can take other math electives in 11th and 12th grade such as computer science, AP Statistics, or other options.

5.3 What math classes are a prerequisite for other classes?

- Algebra I is a prerequisite for Geometry.
- Geometry is prerequisite for Algebra II or can be taken simultaneously with Algebra II.
- Algebra II is a prerequisite for Pre-calculus and AP Statistics.
- Pre-Calculus is a prerequisite for Calculus and AP Calculus.
- Roadmap to Computing is a prerequisite for AP Computer Science Principles and AP Computer Science A.
- Calculus is a prerequisite for AP Physics or can be taken simultaneously with AP Physics.

5.4 What is the graduation requirement for math classes?

- The state requires students to take Algebra I, Geometry, and one other math class.
- Columbia High School requires students to take 3 math classes while at CHS. This can include computer science courses.

5.5 What are the usual paths for math courses at CHS?

- Algebra I->Geometry->Algebra II-> Pre-calculus or elective.
- Geometry->Algebra II->Pre-Calculus->Calculus, AP Calculus, or elective.
- Algebra II->Pre-calculus->Calculus or AP Calculus->Elective.
- Some students take AP Statistics as a second math class in one year or in 12th grade.

6. Math Courses Grades 6-12

