



PreAlgebra at Deerstream

The aim of PreAlgebra is to solidify the math skills gained in the elementary years and provide students with an excellent foundation for upper level math. Through teaching, practice, challenge, and creative math application, students will grow in basic skills and develop a growth-oriented mindset about math.

Curriculum: *The Art of Problem Solving* PreAlgebra. This curriculum deviates from traditional approaches to math in that it emphasizes the development of math concepts over just getting the right answer. Students who are accustomed to lots of repetition of exercises will be challenged by the problem-based approach. Students can expect to be regularly stumped and even frustrated, but the joy of the “Aha!” moments and a deeper understanding of math are well worth the effort.

Schedule: PreAlgebra will meet from **9:15-12:15 on Thursday** mornings at the Chapel Hill Bible Church from September 15-May 11 (minus scheduled breaks). An optional (recorded) Zoom help session will be available on **Tuesdays from 9-10 AM**.

Prerequisites: Most students entering PreAlgebra should be at least 11 by August 31, 2022.

The pretest to determine readiness for this course can be found at <https://data.artofproblemsolving.com/course-docs/diagnostics/prealgebra1-pretest.pdf>.

By September when the course begins, students should be able to qualify for the course more or less according to the directions on the pretest. After the student has a chance to re-do the problems they originally got wrong on a second sheet of paper, they should try to complete the test on a third sheet of paper with a calculator and some reminders of the concepts involved. Certain kinds of errors (careless errors, for example) are not disqualifying. Other errors (lack of knowledge of elementary math concepts such as adding fractions) show that the student is not ready for this course.

Please consider the nature of this course and your child’s readiness carefully before you enroll, as the annual tuition is nonrefundable. If you have any questions, please consult the instructor before enrolling.

Student Expectations: Students enrolled in PreAlgebra are expected to participate actively in class and complete about 4 hours of outside work per week. Students will be responsible to check their own homework and seek outside help as needed. Students will be held accountable to complete all assigned work, to seek help, and to embrace the process of math, not just find the right answer.

Parent Expectations: Parents agree to provide supervision and help as needed throughout the course. Some students will need more assistance than others. In most cases, parents should be prepared to begin the year with a high level of involvement that may decrease as the year progresses.

Evaluation: PreAlgebra students will be evaluated formally and informally. They will receive regular and consistent feedback regarding their mastery of the material.

Instructor: *Dr. Kim Johnson has her BA in mathematics from St. Olaf College in MN and her PhD in mathematics from UNC-Chapel Hill. She started teaching homeschool math in 2012 and saw that home school students of every ability level were limited by the resources in the standard curriculum. In all her math teaching, she emphasizes the breadth, beauty, creativity, and logic revealed by mathematical concepts. In addition to teaching at Deerstream, she teaches some classes and workshops for the Lukeion Project and also runs the local Math Teachers’ Circle. She has 3 kids, ages 15-20, who have homeschooled off and on over the years since 2010. She and her husband moved from MN to NC in 1993, but are resigned to the fact that they will never be considered NC natives.*