

Pre-Algebra – Part A

Course Syllabus

Instructor: Calvin Colby
Course: Pre-Algebra – Part A
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Teacher Webpage – www.austintrinity.org and ColbyMath.com
Building B, Room 110
Mr. Colby's Tutorials: Monday 3:50-4:30 (after carpool duty) B110, Tuesday 3:30-4:00 B110, Wednesday 3:30-4:15 D-CLC, Thursday 3:30 - 4:30 B110, Friday 3:30-4:30 B110. (Please check the board at the front of the classroom for any changes to these times/locations each day).

Welcome Back!

Greetings 5th grade mathematicians! Welcome to the new school year. I hope you had a wonderful summer.

This year, math class will be filled with many fun and exciting challenges and opportunities to grow. We will be doing more than just learning Pre-Algebra. We will also be further developing your understanding of mathematical operations and properties of operations. I encourage each of you to embrace challenges, share ideas, listen to peers, and take risks. Your participation and open mind will be essential to creating a productive math community. I look forward to a great year!

Greater Purpose

At Trinity we believe in teaching mathematics to develop broad-based mathematical literacy. We seek to foster confident, capable, and creative mathematical thinkers who understand and value the diverse and critical roles math plays in human society so that they can contribute as constructive, concerned, and reflective citizens.

Course Goals

- *Students will identify patterns and relationships to transfer their prior knowledge of rational numbers to new challenging problem scenarios.*
- *Students will clearly demonstrate understanding through written and verbal communication. Students will evaluate and defend claims made by themselves and others by providing evidence and making connections to prior learning.*
- *Students will interpret, investigate, and draw on prior knowledge to construct new models when presented with complex problems in order to develop greater flexibility in the application of their mathematical knowledge.*

Course Description

Pre-Algebra is a two-year course of study. The first year of the course, grade 5, aims to bring to completion students' knowledge of rational numbers. Course one is also designed to increase students' ability to problem solve by providing students with greater exposure to diverse problem-solving situations.

Pre-Algebra is taught using a concept-based approach. With this approach, students are not expected to focus solely on methodology – “how to”. Instead, students are prompted to give greater attention to developing an understanding for the reasons that methodologies are applicable. The goal of this instructional approach is to foster math literacy. Math literate students understand that all concepts presented in math are interrelated: each idea is relevant, being supported by one that precedes it and one that follows it.

Expectations

To ensure academic success please adhere to the 5th grade Academic Expectations contract.

Classroom Creed

- Everyone is a mathematician.
- Mathematicians observe, question, discover, value the process, and make mistakes.
- A wrong answer isn't a wrong answer; it's the discovery of a process that didn't work.
- Intelligence increases as we apply persistent effort.
- Answers are not a product, but merely part of the process; mathematical thinking is the product.

Problem Solving Expectations

There are many different strategies for solving problems. As a class, we will embrace all strategies; however, throughout the year, we expect you to improve your ability to evaluate which strategy most efficiently and effectively solves the problem at hand.

Materials

- Pencils
- Math binders and portfolios have been set up in the classroom.

Skills and Grading

Throughout your mathematical career, you will learn and develop many skills. You will be graded on various assignments and activities that demonstrate your skill development. Your final grade will be determined by weighing how you performed on each skill and will be calculated as follows:

A. Comprehension (30%) - Student demonstrates knowledge of math vocabulary, basic mathematical properties, theorems, and definitions; exhibits basic fact and relational fluency; identifies patterns; and appropriately uses structures.
B. Application (25%) - Student accurately documents ideas through use of various models while demonstrating perseverance.
C. Critical Thinking (15%) - Student demonstrates the ability to apply previously constructed understandings to unfamiliar problems (by analyzing, synthesizing, and evaluating). Student reasons abstractly and quantitatively, and develops conjectures for the purpose of problem solving.
D. Communication (10%) - Student uses appropriate math language when expressing ideas orally and in written form, presents reasonable arguments and respectfully critiques the reasoning of others, and makes inquiries by posing clarifying questions.
E. Collaboration (10%) - Student actively listens to contributions of others, challenges peers to clearly express ideas, uses time wisely, meets expectations of assigned role, respects the roles of others, and takes initiative to present new ideas.
F. Engagement (10%) - Student consistently and thoroughly completes assignments on time, arrives to class on time, and is prepared with all necessary materials.

We will review the various ways in which these skills will be assessed throughout the first few weeks of school.

Please sign and have your parents sign the syllabus and return it tomorrow.

Student Signature

Date

Parent Signature

Date