

Trinity Christian Academy
Advanced Topics in Math
Mr. Robbins
Room J209
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Office hours: Tuesday/Thursday: 3:40 - 4:00

Course Description:

Advanced Topics in Math will be covering a variety of topics. Each chapter will consist of homework, quizzes, one or two chapter tests, activities, and projects, which will be worth either a homework, quiz or test grade based on the level of difficulty.

This course includes a study of inductive and deductive reasoning, mathematical models, problem solving, sets, subsets, set diagrams and operations, real numbers and their properties, arithmetic and geometric sequences, algebraic expressions and formulas, applications of linear equations, graphing functions, polynomial operations, factoring polynomials, solving quadratic equations, percents, tax, interest, methods of saving and investing, buying a home or car, credit cards, measuring length and area and volume, geometric shapes, trigonometry, permutations, combinations, probability, sampling, distributions, and elements of logic.

Prerequisites:

Algebra 1, Algebra 2, and Geometry

Major Topics or Themes to be Covered by Chapter:

Chapter 1: Problem Solving and Critical Thinking

Chapter 2: Set Theory

Chapter 3: Number Theory and the Real Number System

Chapter 4: Algebra: Equations and Inequalities

Chapter 5: Algebra: Graphs, Functions, Linear Functions, and Linear Systems

Chapter 6: Polynomials, Quadratic Equations, and Quadratic Functions

Chapter 7: Personal Finances: Taxes and Interest

Chapter 8: Personal Finances: Saving, Investing, and Spending

Chapter 9: Measurement

Chapter 10: Geometry

Chapter 11: Counting Methods and Probability Theory

Chapter 12: Statistics

Chapter 13: Logic

Turnitin.com:

Students will be required to complete, at least, one writing assignment per quarter. All writing assignments will be submitted through turnitin.com.

Class ID: 15872136

Password: AdvTop

Projects:

Quarter 1: Problem Solving

Quarter 2: Mathematical Modeling

Quarter 3: Mortgage Project

Quarter 4: Describing Data (Statistical Models)

Class Rules/Policies:

Students will be expected to follow any/all rules set by Trinity Christian Academy found in the student handbook. Any infractions of the rules and/or procedures will result in a predetermined consequence.

- 1) Be prepared for class and in seat 30 seconds after bell.
- 2) Be attentive always during class.
- 3) Cell phones allowed only when permitted.
- 4) No food in class (especially gum).

Grading:

Grading weights for Advanced Topics in Math are: 50% for tests, 35% for quizzes, and 15% for homework and daily work.

Required Supplies:

- Pens or pencils
- Loose leaf graph paper
- Loose leaf college rule paper
- 1 subject college rule notebook
- Scientific calculator (recommended: TI-30) or graphing calculator