



POPE JOHN PAUL II  
PREPARATORY SCHOOL

## HONORS ALGEBRA II SUMMER ASSIGNMENT

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Dear incoming Honors Algebra II/Precalculus Students,

Congratulations on your completion of advanced work in Algebra I and Geometry! The Honors Algebra II/Precalculus course covers all of the algebraic concepts of Algebra II and two-thirds of the topics in a traditional Pre-Calculus curriculum.

We want each of you to be successful next year in this rigorous course. For this to happen, it is imperative that each student maintain/enhance their ability to perform the mathematics that was taught in Honors Algebra I and Honors Geometry.

We will be using our online math platform, DeltaMath, to complete our summer work. Delta Math is exceptional because it provides worked examples, videos, and two opportunities for students to find the correct answer. **A test will be given during the first two weeks of school over this summer assignment.** I will be available by email periodically over the summer. I will also offer review sessions during tutorials and after school during the first week of school.

Select this link to register: <https://www.deltamath.com/students?code=8ZC7-C5A3>

Select "Login With Google" and use your Pope email and password.

### Honors Algebra II/Precalculus Course Outline

Unit 00: Polynomial Functions: Graphing and Applications, Poly. Sequences

Unit 01: Polynomial Functions: Solving rational, irrational, and complex roots

Unit 02: Polynomial Systems and Inequalities

Unit 03: Pascal's Triangle and Binomial Expansion

Unit 04: Non-Polynomial Functions: Exponential, Radical, and Rational Functions Unit 05: Unusual Functions and their transformations, horizontal transformations, odd/even functions, Absolute Value of functions ( $|f(x)|$  and  $f(|x|)$ )

Unit 06: Non-Polynomial Inequalities

Unit 07: Inverse Functions

Unit 08: Logarithmic Functions

Unit 09: Conics Sections

Unit 10: Arithmetic and Geometric Sequences Review and Series

The Honors Algebra II/Precalculus course will also incorporate standardized test prep and culminates in a significant Desmos Design Project.

I look forward to developing your advanced mathematical skills as we embark on this journey next year! I am excited to teach each and every one of you and see you grow as a mathematician.

Have a wonderful summer!  
Mrs. Childress

Teacher Contact  
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