

Honors Precalculus

Summer 2023 Assignment Instructions

Welcome to Honors PreCalculus!! As you will be entering Honors Precalculus next year, we would like to make sure that you are refreshed on all your Algebra 2 / Geometry skills and ready for the year ahead. Throughout the summer we would like you to complete a few tasks on Delta Math (www.deltamath.com). Delta Math is a free online math resource to help you with all most any topic in mathematics. We will then continue to use Delta Math throughout the year. If you have any questions, comments, or concerns with Delta Math, please feel free to e-mail Ms. Kimberly Naucodie at knaucodie@gmahs.org or Mr. Daniel Straniero at dstraniero@gmahs.org.

1. Create a Delta Math account. You need an email to login. Please write this down somewhere safe, you will need to sign into Delta Math every time. (If you already have a Delta Math account, you do not need to create a new one.)
2. Teacher Code: **356862**
3. Class code: <https://www.deltamath.com/students?code=RD9A-D72V>
4. Subject: **Honors Precalculus Summer Assignment 2023**
5. Please refer to Khan academy for any skill you cannot recall from Algebra 1. There are videos you can watch to learn and problems to apply to which may help you on any topics you don't remember.
6. Delta Math will show you the skills that you need to complete. You need to solve at least **5 problems correctly** from each skill posted but feel free to do additional problems for those areas where you are needing more help. Click on Show Example or play video if you are unsure how to solve a problem.

**We ask that you work on Delta Math at least once a week over the summer:
Approximately 8 weeks total for a minimum of 15-30 minutes each**

Week	Skill to Practice:
1	Linear systems: Solve Linear systems Graphically (level 2) Solve linear systems algebraically: Solve linear systems – Elimination (level 2) Solve linear systems – Substitution (level 2)
2	Simplify Radicals: Simplify Algebraic Square roots/ Simplify algebraic cube roots Multiply Radical Binomials / Dividing algebraic Radicals
3	Simplify Radicals (cont'd): Rationalize monomial denominators Rationalize denominators with variables

	Combine radicals / Fractional exponents
4	Factoring: Greatest Common Factor Factoring Trinomials ($a = 1$) Factoring Trinomials ($a > 1$ Level 2) Factoring Trinomials ($a > 1$ Level 3)
5	Imaginary / Complex numbers: Add imaginary numbers Multiply imaginary numbers Multiply complex numbers
6	Polynomial Operations / Polynomial Graphs: Adding and subtracting polynomials Multiply binomials Squaring binomials
7	Solving radical equations: Radical Equations (level 1) Radical Equations (level 2)
8	Polynomial Operations: Multiplying polynomials (level 1) Multiplying polynomials (level 2)

With vacations, camps, etc. we understand that there may be some weeks where you may not be able to log on and other weeks where you can spend more than 10-20 minutes on Delta Math. We broke this up as a general outline for the summer tasks, yet you by no means must follow this exactly. Just by the start of September we are asking that you have spent **at least 120 -240 minutes (~ 4 hours)** on Delta Math and have attempted all the skills listed in the skills to practice. The more practice you put in the better, but please do not feel like you need to spend your whole summer working through more problems than necessary.

This summer assignment will be considered your first assignment for Honors Precalculus. You will be graded using the following rubric. Part of this grade will come from an assessment on all the sections listed above. This is due the first day of your Honors Precalculus class.

Category Name	Description	Point Value
Skills Practiced	You will be awarded up to 50 points for the skills you complete correctly on Delta Math. I will convert your grade from Delta Math (out of 100%) to a grade out of 50 points.	/50
Assessment	Score on a 50-point assessment in the beginning of the year on all skills covered above.	/50
Total		/100

Again, please feel free to e-mail Ms. Naucodie knaucodie@gmahs.org or Mr. Daniel Straniero at dstraniero@gmahs.org if you have any questions or concerns about this assignment.

We wish you a safe, happy summer and we look forward to seeing you again in the fall!

The Gwynedd Mercy Academy Mathematics Department

Special note: For those students who transferred from Algebra 2 to honors level may not have covered the same material as Honors Algebra 2. The topic areas that you may want to spend extra time on Khan academy include but are not limited to:

- 4-6 Completing the square
 - 5-5 Theorems Root Polynomials
 - 5-6 Fundamental Theorem of Algebra
 - 6-8 Graphing Radical Functions
 - 7.6 Natural Logarithms
- Chapter 8 Rational Functions
- 8-1 Inverse variation
 - 8-2 Reciprocal Function Family
 - 8-3 Rational Functions and their graphs
 - 8-4 Rational expressions
 - 8-5 Adding and subtracting rational expressions
 - 8-6 Solving rational equations