



Dear Future Cornerstones of HS Mathematics Students,

Welcome to the wonderful world of HS Mathematics! Congratulations on making it through a tough academic year and we are thrilled to work with you as you tackle Cornerstones of HS Mathematics. We are excited to work with you to develop a deep love for the beauty of math and encourage your growth as a mathematician during the 2022-2023 school year and beyond.

Over the summer, you are encouraged to stay fresh on key concepts you learned in your past math courses as well as recap some content that we'll be exploring in the first few weeks of school. While this assignment will not count for a grade, you are expected to know all of the material within this assignment, as these topics are fundamental to your success next year. You are not encouraged to watch every video and complete all the practice problems; instead,

- Identify the topics you do know and therefore won't review
- Identify the topics you don't know and therefore will review

It is important that you not only review last year's material, but also feel adequately prepared to hit the ground running as we start the '22-23 school year. The optional summer assignment is split up into two parts, both of which include the use of Khan Academy. Each major topic is split into videos that review the topic in the second column and then corresponding rounds of practice in the third column. Each element of the assignment is laid out in the schedule on the back of this page. While you do not need to tackle the topics in order, this is a suggested way to help you space out the assignment over the course of your summer.

One of our goals this year is to reinforce student study habits. We will be working alongside you to equip you with good habits and skills. To ensure that you are ready for the journey, we encourage you to set yourself up for success. It is recommended that you have either a 3-ring binder with loose leaf paper or a notebook, and a TI-84 graphing calculator. We encourage you to write down and hold onto your work for this summer assignment so that you can refer back to it in the fall and ask questions if necessary when we return to school.

We hope you have a wonderful summer, and we look forward to starting our course together in September!

Best,  
Mr. Howard & Mrs. Lee



### Cornerstones of HS Mathematics (Math 204) Optional Summer Assignment

Topic	Videos	Practice
Unit 1: Pre-Algebra Review	<a href="#">Fractional Equations / Proportions</a> <a href="#">Literal Equations</a>	<a href="#">Fractional Equations / Proportions</a> <a href="#">Literal Equations</a>
Unit 2: Expressions, Exponents, and Polynomials	<a href="#">Formula Evaluation</a> <a href="#">Algebraic Expressions</a> <a href="#">Simple Inequalities</a>	<a href="#">Formula Evaluation</a> <a href="#">Algebraic Expressions</a> <a href="#">Simple Inequalities</a>
Unit 3: Polynomial Factoring	<a href="#">Factoring with GCF</a> <a href="#">Difference of Squares</a> <a href="#">Simplifying Rational Expressions</a>	<a href="#">Factoring with GCF</a> <a href="#">Difference of Squares</a> <a href="#">Simplifying Rational Expressions</a>
Unit 4: Algebra Applications & Problem Solving	<a href="#">Perimeter Word Problems</a>	<a href="#">Perimeter Word Problems</a>
Unit 5: Ratio & Proportion	<a href="#">Introduction to Rate, Ratio, and Percent</a>	<a href="#">Introduction to Rate, Ratio, and Percent</a>
Unit 6: Functions	<a href="#">Slope as a Rate of Change</a> <a href="#">Tables of Values, Non-Linear &amp; Slope</a> <a href="#">Direct Variation</a> <a href="#">Intercepts &amp; Writing the Equation of a Line</a> <a href="#">Parallel &amp; Perpendicular Lines</a>	<a href="#">Slope as a Rate of Change</a> <a href="#">Tables of Values, Non-Linear &amp; Slope</a> <a href="#">Direct Variation</a> <a href="#">Intercepts &amp; Writing the Equation of a Line</a> <a href="#">Parallel &amp; Perpendicular Lines</a>
Unit 7: Systems of Linear Equations	<i>No Topics – We will cover in more detail next year!</i>	<i>No Topics – We will cover in more detail next year!</i>
Unit 8: Quadratics	<a href="#">Solving Quadratic Equations</a> <a href="#">Graphing Quadratic Functions</a>	<a href="#">Solving Quadratic Equations</a> <a href="#">Graphing Quadratic Functions</a>