

# Geometry Summer Review Assignment - 2025-2026 School Year

**DUE DATE: September 9th, 2025**

**Course Description:** The Saint Dominic Academy geometry curriculum mixes content focused on the goal of understanding the measurements of the 3-Dimensional space we live in with lessons about mathematical theorems and how they are developed. This type of coursework encourages students' spatial visualization abilities to flourish, opens their mind to more real-world applications of math, and fosters deeper learning as students look for reasoning behind geometric rules and discover some on their own through virtual and physical mediums of experimentation.

**Specific Topics:** covered include points, lines, angles, planes, logic, triangle congruence, similar polygons, quadrilateral properties, trigonometry, circles, and area and volume for 2-dimensional and 3-dimensional figures.

## **Purpose of this assignment:**

To ensure students are adequately prepared for the topics that will be explored in this class, this summer assignment is meant to encourage students to review and practice previously learned concepts, and learn anything they may have missed. These concepts will be briefly reviewed and tested within the first 2 weeks of school, before jumping into the main curriculum.

## **Instructions:**

For HW over the summer, you will be tasked with completing the Algebra 1 course on Khan Academy.

-Begin by heading to this link:<https://www.khanacademy.org/math/algebra>. Once there, create an account if you do not already have one (so that your progress will be saved)

-The Algebra 1 Course has 17 units. You need only work on the first 16. **Over the course of the Summer, your goal should be to watch all of the videos, and complete each of the practice sets and assessments in those first 16 units.**

-While this may seem like a lot, the idea is to break it up into small pieces, and work on a unit or 2 each week. To that end, **I recommend setting a time for yourself (weekly or daily) to sit down and look at math for a while. Do not leave it all until the last minute!**

-Your benchmark for completing the assignment should be making sure you are proficient in all of the skills (marked with filled purple boxes on each on Khan Academy), or if you want to go further, reaching mastered level with each skill. **You will need to show completion of each of the units when you return**

- In addition, you will need to make an outline with notes on equations, relationships, and concepts you learned in each unit (handwritten or typed). There is no specific length, but it should be neat and include summaries of every topic

## **Deliverables:**

-Summary/Outline of course content

-Pictures of your account with completed videos and proficient skills

## **Additional Note:**

Aside from the problem solving section, **it is intended that you do the majority of this assignment without a calculator whenever possible**, to practice your own skill working with numbers. You should only use a calculator when absolutely necessary/instructed by Khan Academy.

-If you have already completed these lessons on Khan Academy in the past, I highly recommend you refresh your memory by doing the course challenge and working through any lessons you have not mastered again

**Topics covered on this assignment:**

- Algebra Foundations
- Solving Equations and Inequalities
- Working with Units
- Linear Equations & Graphs
- Forms of Linear Equations
- Systems of Equations
- Inequalities
- Functions
- Sequences
- Absolute Value & Piecewise Functions
- Exponents and Radicals
- Exponential Growth and Decay
- Quadratics: Multiplying and Factoring
- Quadratic Functions and Equations
- Irrational Numbers
- Creativity in Algebra

**Helpful Resources:** If at any point during the assignment you need a refresher on the topic, or to learn it for the first time, don't be afraid to look for video tutorials and articles on the internet. Here are some good sites that I recommend using as reference when needed. **It is intended that you practice searching for the guidance you need on the internet for this assignment.** Algebra is one of the most documented subjects on the internet, learning to find content that helps you learn now will come in handy during your educational career. **Remember to search for an explanation of the process, not just the answer to a specific question!**

-[Math is Fun \(mathsisfun.com\)](http://mathsisfun.com)

-[Pre-algebra | Khan Academy](https://www.khanacademy.org/math)

-[Free and clear online algebra help! | Purplemath](https://www.purplemath.com/)