

Mathematics for grades 7 and up (Younger students with instructor approval)

Dates: Aug. 23, 2021 – May 12, 2022

Instructor: Debbie Johnson

Thursday Afternoons 1:30 – 2:30 In person

Bethesda House of Mercy, 209 Howard St, Floyd, Virginia

Pre-requisite:

Basic arithmetic skills in addition, subtraction, multiplication, division with whole numbers.

Course Description:

The year will be divided into three distinct segments designed to bring a student through Pre-Algebra, Geometry and Algebra I. Students who already have learning in a segment may want to only participate in other segments. There will be an introduction to problem solving throughout the year as pertinent topics are covered. The syllabus is lined up to coordinate with chapters of the texts listed. Students are on their own to practice what is learned each week however I am also offering a tutoring hour right before each class to answer questions for anyone.

Tuition: Free

Texts:

Essential PreAlgebra Skills Practice Workbook by Chris McMullen, PhD

The Everything You Need to Ace Geometry in One Big Fat Notebook by Christy Needham

Master Essential Algebra Skills Practice Workbook by Chriss McMullen, PhD

Algebra Word Problems Made Simple by Richard W Fisher

Other Materials:

Calculator with square root function.

Compass, protractor and straight edge for Geometry session.

Simple graph paper

Goals and Objectives

Sept 16 – November 11 – Pre-Algebra goals

- Arithmetic Operations including square roots and exponents.
- Order of Operations

- Fractions
- Decimals
- Percents
- Working with Expressions
- Solving Equations
- Ratio Problems
- Rate Problems
- Inequalities

November 18 – Feb 24 – Geometry Goals

- Basics of Geometry
- Parallel Lines
- Triangles and Congruence
- Quadrilaterals and Polygons
- Geometric transformations
- Similarity
- Right Triangles and Trigonometry
- Circles
- Area
- Surface and Volume

March 2 – May 12 - Algebra I

- Getting ready for Algebra
- Solving Linear Equations
- Exponents
- Distributive Property
- Factoring Expressions
- Quadratic Equations
- Variables in Denominators
- Systems of Equations
- Inequalities