

## Introduction

The **MATHNASIUM EXTENSION (DATA, STATISTICS, AND GEOMETRY)** program is designed to target the fundamental Data, Statistics, and Geometric skills identified at each level.

The program addresses these topics for **Levels 1** through **7** and **Algebra Readiness**. This program is intended to teach students fundamental **DATA, STATISTICS, AND GEOMETRY** skills to supplement the other material in their Learning Plans and to better prepare them for future courses in school. These assessments build toward Geometry Readiness and our other high school programs.

The **MATHNASIUM EXTENSION ASSESSMENTS** have been developed to extend a student's current knowledge and allow them to work on various types of application. Please be advised that this program is intended to be used in addition to a student's Mathnasium Level Learning Plan, only once they are ready for supplemental material.

## Release Content

There are eight **EXTENSION ASSESSMENTS** for **Levels 1** through **7** and **Algebra Readiness**, along with new curriculum and legacy curriculum. Answer Keys for all are included.

## Program Objectives

Upon completion of an **EXTENSION ASSESSMENT** Learning Plan, a student will have demonstrated mastery of core Data, Statistics, and Geometry topics found in that level's coursework. Each level includes a combination of Data/Statistics and Geometry according to the topics that students typically see at that level. See below for details regarding the concepts that are included on each level of these **MATHNASIUM EXTENSION ASSESSMENTS**.

**LEVEL 1** – Pictographs, Tally Charts, and Properties of 2-D Shapes

**LEVEL 2** – Pictographs, Bar Charts, Tables, Line Plots, Frequency Tables, and Properties of 2-D Shapes

**LEVEL 3** – Scaled Pictographs, Rotations, Scaled Pictographs, Introduction to Perimeter and Area, Introduction to Symmetry, Properties of Quadrilaterals, Introduction to 3-D Shapes, and Polygons

**LEVEL 4** – Classifying and Measuring Angles, Parallel and Perpendicular Lines, Properties of Quadrilaterals, Symmetry, Transformations, Line Graphs, and Scaled Bar Graphs

**LEVEL 5** – Classifying Angles and Triangles, Properties of 2-D and 3-D Shapes, Graphing Coordinates, Line Graphs, Introduction to Volume, Basic Symmetry, and Geometric Nets

**LEVEL 6** – Perimeter and Area of Parallelograms and Composite Shapes, Problem Solving with Perimeter and Area, Surface Area and Volume of Rectangular Prisms, Classifying Triangles, Box and Whisker Plots, Basic Probability, Identifying Median and Range, Identifying Mode, Histograms, and Dot Plots

**LEVEL 7** – Interior Angles, Surface Area and Volume, Circumference and Area of Circles, Probability, Scale Factors, Properties of Real Numbers, Complementary/Supplementary Angles, Vertical Angles, Linear Pairs, Pie Charts, Stem and Leaf Plots, and Central Tendency

**Algebra Readiness** – The Algebra Readiness Extension Assessment was created from critical skills found on Geometry Readiness and includes a new Prescriptive on basic scatter plots.

## **Intended Audience**

### New students

For new Mathnasium students, it is recommended to start with a Mathnasium Level Assessment. **MATHNASIUM EXTENSION ASSESSMENTS** are not intended to be used as an initial Assessment/Learning Plan.

Enrichment students looking to explore the foundations of **DATA, STATISTICS, AND GEOMETRY** could take a combination of a Mathnasium level assessment and the appropriate level **MATHNASIUM EXTENSION ASSESSMENT**, only if they demonstrate strong basic skills on the Mathnasium Level Assessment and their initial Learning Plan is not more than 10 concepts.

### Existing students

Any student that has completed two-thirds of a Mathnasium level Learning Plan could take the **MATHNASIUM EXTENSION ASSESSMENT** that correlates to that level, and the Extension material can be added accordingly to their current Learning Plan. This material should not be given to a student independent of a Mathnasium Level Learning Plan. It is important that they continue to work on a combination of concepts and do not only focus on the **DATA, STATISTICS, AND GEOMETRY** material.

Please be sure that they have completed any skills that would be Prerequisite to the topics addressed on the given **MATHNASIUM EXTENSION ASSESSMENT**. As always, the best course of action is on a case-by-case basis dependent on the needs of the student in question.

## **Recommendations for Administering Assessments**

The length of our Assessments is dictated by a detailed break out of critical skills that create a level of individualized Learning Plans that is a hallmark of the Mathnasium Method. The **MATHNASIUM EXTENSION ASSESSMENTS** are significantly shorter than the Mathnasium level assessments. Refer to the guidelines below to have an idea of the Assessment time:

Extension Level 1  $\approx$  15 minutes

Extension Level 2  $\approx$  20 minutes

Extension Level 3  $\approx$  25 minutes

Extension Level 4  $\approx$  30 minutes

Extension Level 5  $\approx$  30 minutes

Extension Level 6  $\approx$  35 minutes

Extension Level 7  $\approx$  35 minutes

Extension Algebra Readiness  $\approx$  35 minutes

Students should answer every question that they are able to answer. They can skip any questions that they are not familiar with or have otherwise forgotten.

### **Accompanying Curriculum**

This curriculum release consists of 47 new Prescriptives.

### **Workout Book Assignment**

The Workout Book should still be assigned according to the student's score on a Mathnasium level assessment. There are no WOB recommendations based on how a student does on a **MATHNASIUM EXTENSION ASSESSMENT**.

### **Questions/Feedback**

We would love to get your feedback as you put this new material in front of students. If you have any questions about the program, please contact [support@mathnasium.com](mailto:support@mathnasium.com) and the appropriate contacts will provide assistance.