

Operational Systems

The Integers

Sets Subsets & Set Operations

Ordered n-Tuples

Mappings

The Rationals

The Decimals

Probability

Number Theory

EMF

At a Glance

Students take Pre-Algebra exam.

Algebra Groups, Rings and Fields

Algebra Relations, Mappings and Equations over Fields

Algebra Relational Systems and Ordered Operational Systems

Real Functions I

Real Functions II

Students take Algebra 1 and Algebra 2 exams.

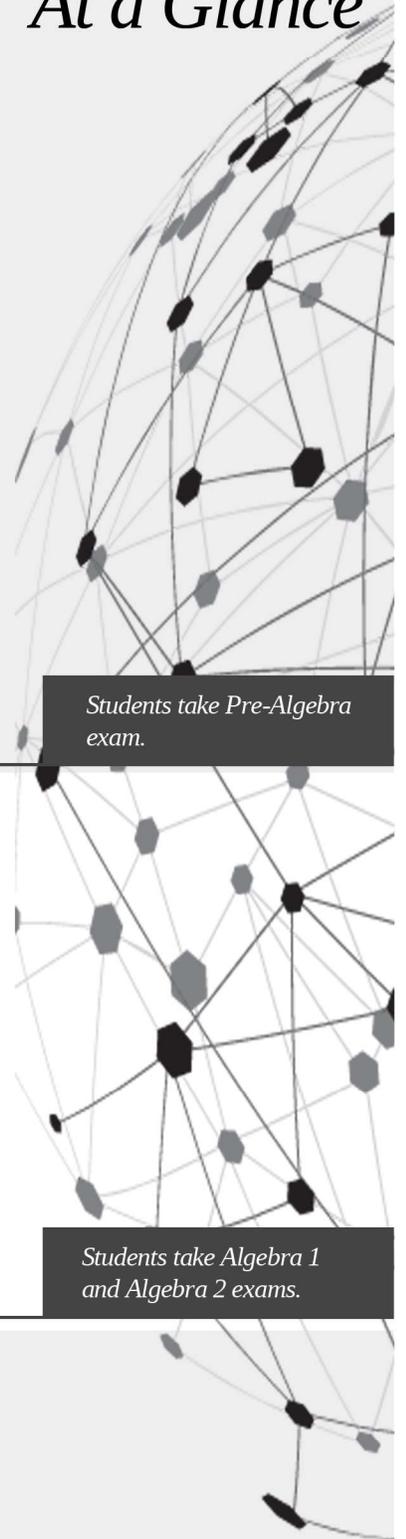
Geometry Incidence and Transformations

Geometry Congruence and Similarity

Geometry Coordinates and Measurement

Precalculus

Students take Geometry and Precalculus exams.



Elements of Mathematics Foundations

At a Glance

Background

Elements of Mathematics: Foundations (EMF) traces its roots back to a federally-funded effort to create mathematics curriculum for gifted students. The original program, Elements of Mathematics (EM), prepared ten-year-olds to begin learning undergraduate-level mathematics by seventh grade and upper division mathematics as college freshmen. The middle school portion of this curriculum eventually became EMF.

Unfortunately, not only did the original EM program require that teachers be retrained ... they also needed to have mathematics degrees, greatly exacerbating implementation issues. Thanks to modern technological advances, it is now possible to teach EMF as an online, self-study, self-contained mathematics program accessible to gifted middle school students anywhere.

Select FAQs

Since there is no teacher, what do students do when they need help?

Students post questions to the online EMF Help Forum to be answered by advanced students or experienced instructors. Students also review previous Help Forum exchanges.

How do parents and teachers monitor performance?

A report is emailed to parents and teachers each Monday morning and includes current grades, how far the student is ahead (or behind) schedule, and upcoming benchmarks. For teachers, EMF also includes an online master grade book through which teachers track their students' progress.

Does EMF replace a student's middle school math program?

Yes. Students enrolled through their school study EMF during their math class. A student's report card grades in math are calculated from his or her EMF grades.

And when a student completes the EMF program?

He or she should qualify for high school credits in Algebra 1, Algebra 2, Geometry and Precalculus, and will be ready to take AP Calculus in 9th grade.

Select Survey Responses

The following is a sampling of parent findings from an anonymous survey given to EMF families in Broward County Public Schools, Florida in spring of 2016.

Parent Findings

- 100% of parents reported that their child's ability to analyze complex problems, self-study skills, and ability to focus for extended periods of time had improved since beginning EMF.
- 92% of parents report that their child enjoys doing EMF and finds EMF challenging.
- 92% of parents think that EMF has made their child more ready for high school and college mathematics than they would have been without it.