

AGENDA

Getting Started with Math Inventory

OVERVIEW

This course prepares participants to use the *Math Inventory* (MI) to determine what students know and are ready to learn. Participants analyze the various data reports and consider how to utilize the teacher resources to differentiate instruction based on students' Quantile® measures.

OUTCOMES

- Interpret students' results from the MI online adaptive math assessment to determine students' readiness for math instruction and track growth toward algebra and college and career readiness.
- Use online management tools to view data, manage enrollment, customize user experience, and access resources.
- Plan targeted instruction and differentiation using students' Quantile measures and the Quantile Framework® for mathematics.
- Effectively prepare students, and create an environment for online testing to get accurate results.

Research and Program Overview

This session provides customers with an overview of the components and research *Math Inventory* (MI) and its use to measure student's readiness for instruction, target instruction using Quantile measures, and track progress from Kindergarten through Algebra II.

The Student Experience

Participants experience the MI test using a Simulator to become familiar with the format and components of the test.

BREAK

Exploring the Quantile Framework for Mathematics

Participants develop an understanding of how the Quantile Framework for Mathematics was developed, how it links students' readiness for instruction to mathematics concepts and skills, and how it provides a quantifiable trajectory from Kindergarten to Algebra II. Participants also learn how related skills and concepts form Knowledge Cluster with prerequisite, supporting, and impending skills.

Analyzing Results and Data

MI results can be used for a variety of purposes. Using SAM Central, participants engage in data analysis. They learn that SAM Central makes it easy to assess and plans instruction and monitor student progress toward mastery with college and career and grade-level standards.

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Participants learn about individual student and class reports, how to group students for differentiated instruction, and how to benchmark students' math growth over time toward Algebra and beyond.

LUNCH

Using the Digital Management Tools

Using SAM Central, participants engage in program settings, managing enrollment, and professional learning all in one centralized location and learn this makes it easy to assess and plan instruction. They learn that the SAM is component of SAM Central and is accessed through SAM Central to import students, set up schools and teacher accounts, and manage advanced settings.

Connecting Assessment to Instruction

Participants use the Math Skills Database and Knowledge Clusters with data from the reports to inform instruction.

BREAK

Best Practices for the Assessment

Participants learn the important tasks to be completed before, during, and after administering the MI.

Closing

Participants take time to reflect on the experiences of the day and ways that these experiences will positively impact their classroom instruction.

Math Solutions Guiding Principles

Drawing upon academic work and our own classroom-grounded research and experience, Math Solutions has identified the following four instructional needs as absolutely essential to improving instruction and student outcomes:

- Robust Content Knowledge
- Understanding of How Students Learn
- Insight into Individual Learners through Formative Assessment
- Effective Instructional Strategies

These four instructional needs drive the design of all Math Solutions courses, consulting, and coaching. We consider them our guiding principles and strive to ensure that all educators:

- Know the math they need to teach—know it deeply and flexibly enough to understand various solution paths and students' reasoning.

Math Solutions Course Agenda: Getting Started with Math Inventory

- Understand the conditions necessary for learning, what they need to provide, and what students must make sense of for themselves.
- Recognize each student's strengths and weaknesses, content knowledge, reasoning strategies, and misconceptions.
- Have the expertise to make math accessible for all students, to ask questions that reveal and build understanding, and help students make sense of and solve problems.