Math Solutions®
FOUNDED BY MARILYN BURNS

AGENDA
Getting Started with MATH 180® Course I Professional Learning: Day 1 and Day 2

OVERVIEW
This MATH 180 professional learning is designed to help teachers consider how *MATH 180* prepares students to meet rigorous college and career readiness standards. Teachers understand the *MATH 180* Instructional Model from the teacher's and student's perspective looking closely at the role of classroom discourse to support learning of mathematics. Teachers discover how SAM Central supports teaching, planning, and progress monitoring. They interpret *MATH 180* progress, performance, and assessment data to inform instruction and prepare for the first six weeks with *MATH 180*.

OUTCOMES
MATH 180 professional learning is designed to help teachers:
- Understand the research behind *MATH 180*.
- Learn how the Common Core State Standards and assessments impact teaching, curriculum, and learning.
- Experience the *MATH 180* Instructional Model from the student's perspective.
- Explain and use the role of talk to support learning of mathematics.
- Use SAM Central to support teaching, planning, and progress monitoring.
- Interpret *MATH 180* progress, performance, and assessment data to inform instruction.
- Prepare for the first two weeks with *MATH 180*.

Opening
The opening includes introductions, goals, an overview of the habits of mathematical thinkers, and pertinent logistical information.

Intervention Instruction to Support Student Learning
Through the use of a mathematical problem, participants consider the challenges of math teaching and learning and begin to identify characteristics of struggling learners. An overview of *MATH 180* spine provides participants with an understanding of how the program is designed to support students to meet the rigors of college- and career-readiness standards.

BREAK

The Student Experience
Participants experience the *MATH 180* Instructional Model by engaging in a group lesson and exploring the instructional software. Participants learn how the Instructional Model motivates and supports struggling learners. They reflect on the role of the teacher in the *MATH 180* classroom.

LUNCH

Teaching and Planning Using SAM Central
Using SAM Central, participants engage in interactive professional learning and lesson planning. They learn that SAM Central is a comprehensive online teacher resource.

Closing

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

Day 2
Opening
The opening includes course goals, a review of highlights from the previous day, and an overview of the day's agenda.

Assessing Student Learning
To gain a complete picture of what students understand and can do, it is important to consider results from multiple forms of assessments. Participants preview the *MATH180* assessment timeline and learn how to use the assessments to inform instruction.

BREAK

Monitoring Progress with Data Analytics
MATH 180 includes extensive data-analysis tools to help monitor student progress and target instruction. Participants learn how to track students' progress toward algebra readiness, group students for differentiated instruction, and monitor ongoing progress and performance.

LUNCH

Differentiating Instruction CheckPoint Days
MATH 180 CheckPoint days are purposefully designed to provide all of the necessary resources to differentiate instruction for all learners. As participants experience a Stretch lesson and a Boost lesson, they learn how the SAM Central Groupinator uses data to systematically group students and generate targeted lessons for differentiated instruction and problem solving.

BREAK

Preparing for the First Two Weeks
The first two weeks in the classroom is an opportunity to set high expectations for students and the role of the teacher in meeting those expectations. Participants learn how to use the *Getting Started Guide* to establish a positive classroom environment, introduce students to growth mindset, and give students opportunities to explore *MATH 180* software.

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

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- 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.
- 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.