

New Workshop for Mathematics Teachers!

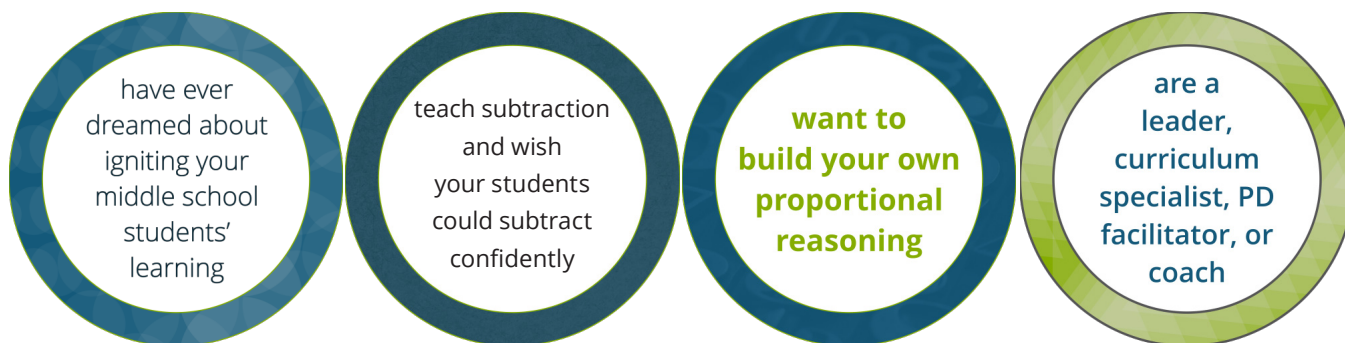
BUILDING POWERFUL SUBTRACTION

If not cross algorithms, then what?

Frustrated . . .

- **by students** who don't know the facts or don't memorize well?
- **by new methods and models** you're expected to teach?
- **that your students should be more successful** since you are putting in so much effort?

If you . . .



then this workshop is for you!

No matter what stage you're in—developing your own subtraction, learning how to construct subtraction reasoning in your students, or perfecting your craft, you'll leave with action steps you can implement immediately.

The workshop is an asynchronous online experience for grades 2-12 teachers and leaders. The workshop is designed to empower participants to reason through subtraction situations and problems, and help participants understand how to construct reasoning and subtraction strategies with their students. The work consists of presentations, discussions, and tasks that are based on video taken at a live 2-day workshop with grade 2-12 teachers. There are seven modules that take participants on a path from learning about the nature of reasoning, supporting students to build subtraction strategies, to helping students model and engage in all types of subtraction situations. Participants will also study lesson types to construct reasoning and analyze high-leverage teacher moves.



More information about Building Powerful Subtraction:
<http://mathisfigureoutable.com/bps>

HELPING YOU become the math teacher you want to be

Executive Summary

BUILDING POWERFUL PROPORTIONAL REASONING: RATIO & PROPORTION

Workshop Summary:

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WORKSHOP OUTLINE

MODULE 1:	What Does It Mean to Think Additively about Subtraction?
MODULE 2:	Building Strategies
MODULE 3:	The Connection Between Addition and Subtraction
MODULE 4:	Getting More Sophisticated
MODULE 5:	Top 3 Lesson Types for Student Success
MODULE 6:	High-leverage Teacher Moves that Help You Help Your Students
MODULE 7:	Developing Subtraction in Younger Learners and Extending Subtraction in Higher Math

TIME COMMITMENT

Each module consists of 4-8 lessons. It takes between 2-4 hours to complete each module. Participants have 16 weeks to finish the workshop. Each module begins with a welcome video to orient participants to the topic and the time commitment they can expect for each lesson. Along the way, there are incentives (such as resource giveaways) to help participants stay on task and finish the workshop.

PARTICIPANT TASKS

Lessons consist of watching video of the live workshop, working problems, predicting student strategies, comparing strategies, and representing student thinking. Participants interact with Pam Harris and other participants on the workshop message boards. Participants submit questions to be answered in a recorded, live Q/A webinar. Each module ends with lessons, tasks, and problems to try in classrooms.

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