

SAME 2017 Break-Out Sessions

Title	Presenter	Grade	Description
Problem of the Month	Joe McLean <i>Springview Middle</i>	K-12 th	If you are looking to add higher-level tasks into your teaching, then this session is for you! This session will introduce you to problems of the month. We will explore this outstanding free online resource and discuss ways to begin implementing them in your classes. The Problems of the Month are non-routine problems designed to be used school wide to promote a problem-solving theme at your school. Each problem is divided into five levels of difficulty, Level A (primary) through Level E (high school), to allow access and scaffolding for students into different aspects of the problem and to stretch students to go deeper into mathematical complexity. The Problems of the Month were developed by the Silicon Valley Mathematics Initiative and are aligned to the Common Core standards. Please bring a laptop or tablet so you can explore the resource during the session.
Making Student Thinking Visible using Padlet	Marie Criste <i>Roseville Joint Union High School District</i>	K-12 th	Gathering thinking from all students in class can be a challenge - only some are willing to share. Come see how an app called Padlet can be used to gather thinking from each student or each pair or each group, and how that can be viewed and used by the class.
Desmos - More Than a Graphing Calculator	Carol Pryor <i>Roseville Joint Union High School District</i>	7 th -12 th	In this hands-on session we will explore the many activities, lessons and features available on Desmos. Participants will leave with a user-friendly HyperDoc containing links, descriptions, tips and tricks for each Desmos application. Recognizing that technology is a tool to support student learning, strategies will be shared for using these activities with your current math curriculum to increase engagement and collaboration, strengthen academic vocabulary, and make thinking visible. Time will be given to explore, create, and play!
Problem Solving with Probabilities	Scott Farrand, Corey Shanbrom, & Vincent Pigno <i>Sacramento State</i>	9 th -12 th	Treat yourself to the opportunity to be a student for an hour, and have some fun with a rich problem solving exercise. We'll pose a problem about probabilities that challenges your intuition. As the problem expands, it becomes something completely unexpected, reaching a beautiful and surprising conclusion.

Student Competition Problem Break-Out Sessions

Join us as we work through a rich task from the student competition requiring students to MODEL, to mathematicise the situation in order to provide a solution. We'll share a rubric which supports communicating clearly and correctly the mathematical solution path, and which supports grounding the reasoning in the context of the problem. The task provides students an opportunity to demonstrate their abilities to model with mathematics (SMP4), to construct viable arguments (SMP 3), and to reason abstractly and quantitatively (SMP 2).

Student Problem #1

500 Pounds of Pennies for Elementary

Student Problem #2

A Triangle and A Trapezoid for Elementary