

SNAP Math Fair Workshop, BIRS 2024

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1 Introduction

The SNAP Foundation is a non-profit organization whose mandate is to encourage the development of mathematics learning resources at the classroom level with very little retraining of the teaching staff, with very flexible budgets, and by utilizing the energy and natural curiosity of the students themselves.

The main theme of the BIRS workshop was, What is a SNAP math fair and how to organize a math fair in your classroom. The presenters mostly consisted of teachers/educators who shared their math fair experiences, success stories, and organizational struggles.

SNAP received its initial funding from the Canadian Mathematical Society and from private donations. PIMS, the Pacific Institute for the Mathematical Sciences, has been a long time financial supporter of our math fairs. BIRS, the Banff International Research Station, has provided funding for the BIRS math fair workshops that have been held in Banff on a regular basis.

2 2024 Workshop Highlights

This year's SNAP Math Fair Workshop at the Banff International Research Station consisted of talks and discussions lead by a variety of participants including Alberta and British Columbia public school teachers, graduate students, and university instructors. There was a focus on the integration of mathematics focused puzzles and games into the K-9 classroom however talks were given on a variety of topics. These topics included the experience teachers had organizing and running SNAP Math fairs, as well as magic tricks and juggling using mathematics.

One of the overarching themes of the workshop was the impact games, puzzles, and math fairs have on students. All accounts presented emphasized how these tools helped students foster curiosity and positive attitudes towards mathematics. These tools have been shown to encourage students to engage and

persevere in mathematical tasks, building the students' resilience. Many teachers observed their students analyse and interpret puzzle and game information differently, offering unique perspectives and mathematical discussion.

3 2024 Workshop Feedback

Discussions were engaging and productive, often spilling over into breaks. A lot of conversation focused on insights into getting students to engage with puzzles and getting fellow teachers to support math fairs hosted in schools. Participants solved a number of puzzles and played a number of games over the course of the workshop in order to fully understand the materials they hope to bring into their classrooms. Participation and enthusiasm was high among all participants.