The legacy of Mindstorms
L'héritage de Mindstorms
(Org: **Andrijana Burazin** (Toronto) and/et **Peter Taylor** (Queen's University))

GENERAL DISCUSSION,

BERNARDO GALVAO-SOUSA, University of Toronto
Open ended modelling problems

In a second year Modelling with Differential and Difference Equations, I introduced open ended modelling problems. Taking advantage of the online setting where students have access to computer algebra systems, students are allowed to make use of them to approximate and study differential and difference equations to analyze them. In my talk, I'll show some of the results.

ALFONSO GRACIA-SAZ, University of Toronto
Playing with Desmos in the classroom

How do we help students play, explore, investigate, make conjectures, and discover math? I will share the tale of one successful classroom activity that students embraced, rather than rolled their eyes at.

SARAH MAYES-TANG, University of Toronto
Using Stories to Learn Math in A First-Year Seminar

We often teach math to young children through picture books: it is taken for granted that using stories to teach math can build children's enjoyment and curiosity about math while also introducing new concepts, promoting mathematical thinking, and inviting them into a mathematical world. In this talk I will discuss how I designed a seminar for first-year students that uses the same principles, with literature in place of picture books. I will introduce the texts, activities, and assessments that I hope will make this vision come to life in the first offering of this seminar in the Spring of 2021, and how I am adapting it to now be offered fully online.

ANDREW MCEACHERN, amceachern6@gmail.com
Tournaments in a Proofs Class

What possible place does a tournament have in the middle of an introductory proofs class? I've known many instructors, including myself, who have included the odd riddle or math problem that is seemingly unrelated to the material currently being studied. Working on the same kinds of problems leads to a certain kind of fatigue with which we are all familiar, and I believe the injection of a different kind of problem into the standard curriculum gives the brains of our students a chance to shift gears. A game can be thought of as specific kind of riddle, and putting a prize at the end engages even the students who are not normally competitive. It sparks their logic, creativity, and clear strategic thinking, which are essential ingredients in the construction of proofs. In this talk, I'll describe my version of the Colonel Blotto Tournament, how my class responded, and then we'll play a round of the tournament together.

PETER TAYLOR, Queen's
Let's invite Seymour into our calculus classroom.

I will discuss the reasons that most calculus instructors would find him to be an awkward guest, but I will then propose a few activities that Seymour would quite enjoy.