

USING A GRAPH THEORY PROBLEM TO PROMOTE PROBLEM SOLVING IN PROFESSIONAL DEVELOPMENT OF SECONDARY TEACHERS

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Short description of the Discussion Group: aims and underlying ideas

The session will begin with a presentation of a graph theory problem used in a professional development setting promoting problem solving. This will be followed by attendees given some time to explore the problem and discuss their strategies.

The session will then proceed to a discussion about why a graph theory problem – in particular this one – was chosen for problem solving professional development of secondary teachers. Part of the discussion will also involve using the problem with students from 6th graders to upper secondary students.

The discussion will then proceed to a presentation of how the problem is presented to the secondary teachers. This will include various experiences working with the secondary teachers from the moderator and the participants.

The next part of the session will involve participants discussing their impressions of the problem being used in professional development. Included in this will be suggestions on improvements to experience and possible other discrete mathematics problems or topics that could be used in the professional development setting.

Planned structure:

Tuesday, 16.30-18.00: Planned timeline	Topic	Material / Working format / presenter
16.30-16.40	Introduction to the session	The problem / topic presentation / James Maltas
16.40-17.10	Participants working the problem	Participants working together / James Maltas
17.10-17.40	Participants sharing their solutions and impressions of the problem	Participants sharing / James Maltas
17.40-17.55	Open discussion of ideas, examples, and issues that have	Participant sharing / James

Maltas

	arisen. Suggestions for the future.	Maltas
17.55-18.00	Summary	Summarize the session / James Maltas

Friday, 16.30-18.00: Planned timeline	Topic	Material / Working format / presenter
16.30-18.00	Discussion in conjunction with Oral Presentations for Topic Study Group 17 on Discrete Mathematics	Eric Hart, Jim Sandefur, James Maltas, and presentations at the TSG 17 Oral Communication session at 16.30 to 18.00