



A Workshop on Fun and Creative Problem Solving in Mathematics and Computer Science

by
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Date: 28 January 2010 (Thursday)

Time: 2:30pm -- 5:00pm

Venue: Conference Room (Level 4), NYGH

Abstract:

Discover the fun and joy of creative problem solving in mathematics and computer science. The first part of this workshop will expose you to the process of creative problem solving. We do it by showing how a real-life problem (the tourist problem) is modeled and solved using something called graph colouring. Then you will see how graph colouring is also used to solve many other real life problems. Learn how to “invert” a triangle of coins of height 263 by moving the minimum number of coins! (Question: Why 263?)

In the second part, this workshop covers mathematics and computer science research projects in secondary schools (such as NYGH), the various stages of a typical research project and gives some tips on how to go about these stages towards an excellent project.

Moral of the Story

❑ The Tourist Problem:

- ❖ Some problems are EASY. (don't complicate them)
- ❖ Get a *simple* solution first.
then *analyze* it, *improve* it, *refine* it.
- ❖ Solution depend on the questions asked
- ❖ It is important to ASK QUESTIONS.



One abstract model, many application;
One graph-colouring program, many applications.

