

NIPISSING

U N I V E R S I T Y

FOR THOSE INTERESTED IN MATHEMATICS: MATH CIRCLES

NUMERIC (Nipissing University Mathematics Education Research and Information Centre), the Department of Computer Science and Mathematics and Biiidabaan Community Service—Learning at Nipissing University invite students from Grades 5-12 to participate in MATH CIRCLES.

Math Circles are free, informal meetings for students who enjoy Math and problem solving. Interested students will work on challenging problems under the guidance of Mathematics faculty from Nipissing University and Mathematics teachers from the North Bay area. Math Circles have been a great success in many other communities, and some student participants have gone on to the International Mathematical Olympiad.

North Bay's Math Circles are free of charge and will be held at Nipissing University's downtown location at 100 Main Street East (the corner of Main Street and Ferguson Street). Students do not have to enroll, and can come to as many of the Circles as they want. Pizza and soft drinks will be provided to participants.

Math Circles will be once a month starting November 7. There will be six in all.

DATES AND TIME

Each session will be on a Saturday from 1:00pm-4:00pm. The dates are as follows:

November 7, 2009	February 20, 2010
December 5, 2009	March 27, 2010
January 9, 2010	April 24, 2010

Below are two typical problems that students will be working on. There will be a variety of problems to suit each participant's background in Mathematics. Students who are interested in Mathematics, interested in challenging problems and in improving problem solving skills are encouraged to attend.

PROBLEM 1

There are 25 coins of the same denomination. 24 coins are of the same weight. The remaining coin is fake and is lighter than the rest. How many weightings is required to determine the fake coin? Find the minimal number of weightings.

PROBLEM 2

You have six-digit ticket number(s): 000000 through 999999. You call a number lucky if the sum of the first three digits is the same as the sum of the last three digits (123006 is lucky, 123007 is not). How many consecutive tickets you should buy to guarantee yourself a lucky ticket?