



ISSN 1481-7799

VOLUME 44 NUMBER 3

APRIL 2016

President's Message



The arrival of Spring reminds us all that another school year is entering its final months. While it is nice to see Winter loosening its grip, we all realize that the weeks ahead will be very busy with end of year preparations for assessments, exams, and report cards. Implementation of the WNCP curriculum is now complete with new Math courses in place at Grades 7, 8, 9, and 12.

The MTA is pleased to welcome three new Executive members and one returning member. Farah Daya is the new Member at Large for the Annapolis Valley Region. Farah teaches High School Mathematics at Northeast Kings Education Centre in Canning. Sonya O'Sullivan is the new Member at Large for the Halifax Region. Sonya is the Mathematics Implementation Facilitator for the Halifax Regional School Board. Jennifer Courish is the new Member at Large for the Chignecto Central Region. Jennifer is the Mathematics Department Head at Cobequid Educational Centre in Truro. Sandy Urquhart is returning to the MTA Executive as the member at Large for the Cape Breton Victoria Region. Sandy teaches High School Mathematics at Sydney Academy in Sydney.

On behalf of all current MTA Executive members I would like to pass along a sincere thank you and best wishes to those Executive members who have completed their terms and moved on to other professional pursuits. Marlene Urquhart of the Cape Breton Victoria Region, Jocelyn Procopio of the Halifax Region, Elinor Cameron of the Annapolis Valley Region, and Patti Kennedy of the Chignecto Central Region all served the MTA in many roles over the years. Their enthusiasm and dedication to Mathematics education will be truly missed. Continued success in all that you do!

The positions of Member at Large for the Tri-County Region and Conseil Scolaire Acadien Provincial are currently vacant. If you are interested in serving in one of these positions please contact any member of the current MTA Executive.

Planning is in full swing for the 2016 MTA Conference. The

conference will be held on Friday, Oct 28 at C P Allen High School in Bedford. If you would like to facilitate a workshop at the conference please contact any current member of the MTA Executive. By all accounts last year's conference was an overwhelming success and we look forward to another day of meaningful professional development in October 2016.

The 2016 NCTM Annual Meeting & Exposition will be held from April 13 – 16 in San Francisco. Register now and join more than 9,000 of your mathematics education peers at the premier math education event of the year. The MTA will reimburse current members up to 50% of the NCTM Conference registration fee with submission of the original receipt. For further information contact any MTA Executive member.

The NCTM Board of Directors Meeting, Special Session: Canadian Perspectives on Mathematics Education was held on February 19, 2016 in Toronto, Ontario. Presidents from each of the NCTM Canadian Affiliate organizations as well as representatives from the Provincial/Territorial Consortia and Provinces were invited to share their perspectives on Canadian Mathematics Education. The challenges faced by Nova Scotia Math educators are similar to those being dealt with across the country and our successes rival those of any province.

The NSMTA strives to give back to its membership by making funding available for special projects developed by classroom teachers. If you have an innovative math education project taking place in your classroom(s), MTA may be able to offer some financial assistance to help develop the project. Information on funding can be obtained by contacting any member of the Executive.

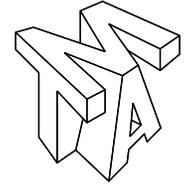
Be sure to visit our website <http://mta.nstu.ca/> or follow the MTA on Twitter @MTA_NS.

I wish you all a successful and rewarding last few months of the school year.

Joe Mac Donald
President

Nova Scotia Mathematics Teachers Association

Math in the NEWS



Halifax high school math marks lagging

The Chronicle Herald, Jan. 30, 2016

High schoolers are a little behind in their math.

In Mathematics 10, two-thirds of students in the province met or exceeded the assessment expectation. Students in the Halifax Regional School Board were one percentage point better than the provincial average, with 68 per cent meeting the assessment expectation

In Mathematics 10 at Work, only 56 per cent of students in the province met or exceeded expectations. In the Halifax Regional School Board, that figure was 51 per cent.

<http://thechronicleherald.ca/novascotia/1338374-halifax-high-school-math-marks-lagging>

What is the best way to teach math?

Old school or new? Teachers debate best methods as scores fall

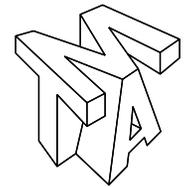
The Canadian Press, Jul. 2, 2015

Don't get math teachers started on best teaching practices.

The discussions are emotional, heated and they don't agree on much — except that Canadian kids are falling behind their peers in other countries, and there's no clear solution.

His approach is simple, Meyer says on the phone from California, where he's a math education researcher at Stanford University. He presents a problem at the start of class, and lets the students try to figure it out. Hopefully, he says, the students will struggle. "That initial moment of struggle prepares them for what they'll learn later," he says.

<http://www.macleans.ca/news/canada/what-is-the-best-way-to-teach-math/>



UPEI launches a new school of math and computational sciences

The university says the new school is one of the most comprehensive undergraduate programs in the region

CBC News Posted: Jan. 19, 2016

The University of Prince Edward Island is launching a new school of mathematical and computational sciences. Applications are being taken now for the program, which will begin this fall.

Students will graduate with a Bachelor of Science, but will major in one of a number of specializations, including video game programming, statistics, actuarial science and financial mathematics.

<http://www.cbc.ca/news/canada/prince-edward-island/upei-school-math-computer-science-1.3410468>

The MTA Newsletter is published by the NSTU for the Mathematics Teachers Association, Farah Daya, Editor.
The opinions expressed are not necessarily those of the Editor, the NSTU, or the MTA.

Carlie Weinreb is 8, and she can do your taxes

Toronto Grade 3 student Carlie Weinreb teaches fellow students about taxes and applied math

CBC News Posted: Mar. 4, 2016

It's always wise to get an early start on filing your income taxes, but one Toronto Grade 3 student has taken that advice to the extreme, developing the math skills needed to fill out a tax return at just eight years old.

He started teaching Carlie math when she was just two years old. By four, she was multiplying and dividing. By six, she was lecturing university students about Canada's income tax system.

Her math lessons started with "skip counting" (counting by twos, threes, etc.) to get Carlie started on concepts like multiplication and formulas. She was a quick study.

"I have a flavour for math and my wife is a school teacher," he said. "We just wanted to give her a head start in math, and tax is applied math."

<http://www.cbc.ca/news/canada/toronto/programs/metromorning/child-tax-expert-1.3475702>

New prime number discovered at 22 million digits

22,338,618-digit prime named 'M74207281' found by Great Internet Mersenne Prime Search

CBC News Posted: Jan. 20, 2016

A new prime number has been discovered — and it's the biggest one known by almost five million digits.

The newest prime number, also known as M74207281, has 22,338,618 digits and is the number you get when you multiply 74,207,281 twos together and then subtract one, says the Great Internet Mersenne Prime Search, which announced the discovery.

<http://www.cbc.ca/news/technology/prime-number-discovery-1.3411711>

Physically active math, spelling lessons multiply academic success

Growing evidence supports physically active lessons while learning in class, researchers say

CBC News Posted: Feb. 24, 2016

Adding jumping jacks and running on the spot to math and language classes helps students to learn, say Dutch researchers, adding to findings on the benefits of physically active lessons.

In Wednesday's issue of the [journal Pediatrics](#), researchers compared standardized math and spelling test scores for 499 children who were randomly assigned to physically active math and language lessons or regular instructions for two years.

The students in the physically active group were four months ahead of the others in their spelling and math achievement, Marijke Mullender-Wijnsma of the Center for Human Movement Sciences at the University Medical Center Groningen and her co-authors found.

<http://www.cbc.ca/news/health/physical-activity-class-lessons-1.3460346>

Storied Math at Citadel High School

HRSB, Nov. 25, 2015

Citadel High School's Math Department Head Jocelyn Procopio loves to find (and solve) the math that exists in everyday situations. Students, however, do not always share in her joy along the mathematical journey. Ms. Procopio says students often complain about word problems; but she says the real-life story behind the math is what makes it interesting and engaging. That's why she recently launched a math quest called Storied Math. Ms. Procopio's goal is to encourage others to discover the beauty in mathematics – and to apply it to achieve great things in life!

<https://www.youtube.com/watch?v=r2EuY6K-ihI>

Want to Present at MTA?

The MTA is always looking for math teachers to present at the annual conference. Fill out the form and become part of the reason why MTA is a great conference to be at.

<http://goo.gl/forms/0PWrp6Zte>

Still looking for help with Google Apps for Education for your math classroom?

<http://www.educatorstechnology.com/2015/02/10-of-best-chrome-apps-for-math-teachers.html>

Try some of these resources online and the apps, add-ons, extensions and software below:

http://www.freetech4teachers.com/2015/06/using-google-apps-in-math-classroom.html#.Vur-G_krLIU

<http://www.edutopia.org/blog/10-apps-for-math-fluency-monica-burns>



Flubaroo

Use Flubaroo within google docs to instantly.... grade multiple-choice or fill-in-blank assignments.



Remind: Safe Classroom Communication

Remind (formerly Remind101) offers teachers a free, safe and simple way to instantly text students & parents. Teachers, coaches, or administrators can send reminders, assignments, ...



PowerSchool Mobile

Calling all students and parents! Check out PowerSchool's brand new PowerSchool Mobile app with an all-new user experience and push notifications. Get real-time access to attendance.



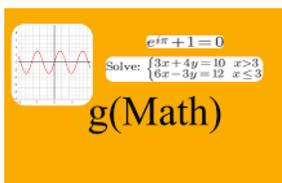
Quizlet – Flashcards & Study Tools

Join millions of students using Quizlet to study! Quizlet makes simple tools that let you study anything, anywhere.



Google Classroom

Classroom is available to anyone with a google apps for education account. Using Google Classroom in school? Get the iOS App to use Classroom on the go.



g(Math) for Forms

Create graphs, functions and equations and insert them into Google Forms.



Lucidchart

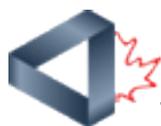
Flowchart and diagram application.



Edpuzzle

Take existing videos, add your voice or text, ask questions and track your students watching the videos and collecting their responses.

Math Contests!!!



The Sun Life Financial Canadian Open Mathematics Challenge (COMC), November 5-6, is Canada's premier national mathematics competition that is **open to any student with an interest in and grasp of high school math**. The purpose of the Sun Life Financial COMC is to encourage students to explore, discover, and learn more about mathematics and problem solving. The competition serves to provide teachers with a unique student enrichment activity during the fall term. <https://cms.math.ca/Competitions/COMC/2015/>

Storied Math

Students always complain about word problems in mathematics. But the story is often the best venue for the most intriguing mathematical quests. I will provide the "story" with a video or a series of photos and you can provide the question or the answer to a question. There will be prizes. Do something amazing. Get ready for a Mathematical Quest. <http://storiedmath.weebly.com/>



VIRTUAL MATHEMATICAL MARATHON
Let's enjoy mathematics together!

Virtual Mathematical Marathon

The Virtual Mathematical Marathon which has been developed by an international team of mathematicians, mathematics educators and computer science

specialists with the help of the Canadian National Science and Engineering Research Council and its PromoScience program.

The main activity is a competition allowing you to enjoy solving challenging mathematical problems all year around. You can join the game at any time and at no costs and solve problems in English or French.

<http://www8.umoncton.ca/umcm-mmvm/>



**CARIBOU
CONTESTS**

About Caribou

The Caribou Mathematics Competition is a world wide online contest that is held six times throughout the school year. Each of these days, five contests are offered, one for each of the grade levels 3/4, 5/6, 7/8, 9/10 and 11/12 and each one in English and French.

The Caribou Cup is the series of all Caribou Contests in one year. Each student's ranking in the Caribou Cup is determined by their performance in their best five of six contests through the school year.

All of the previous contests are available for free online as practice tests.

Upcoming dates:

Wednesday November 18th, 2015

Wednesday January 13th, 2016

Wednesday February 17th, 2016

Wednesday April 6th, 2016

Wednesday May 4th, 2016

<https://cariboutests.com/>

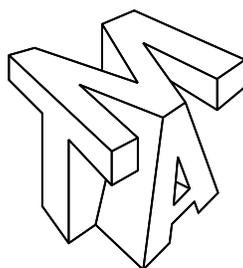
Math Contests!!!

The CENTRE for EDUCATION in MATHEMATICS and COMPUTING

2015/2016 Contest Dates

Contest	Contest Dates		Registration Deadline
	North & South America	Outside North & South America	
<u>Gauss</u> (Gr. 7 & 8)	11-May-16	12-May-16	20-Apr-16
<u>Pascal</u> (Gr. 9) <u>Cayley</u> (Gr. 10) <u>Fermat</u> (Gr. 11)	24-Feb-16	25-Feb-16	09-Feb-16
<u>Fryer</u> (Gr. 9) <u>Galois</u> (Gr. 10) <u>Hypatia</u> (Gr. 11)	13-Apr-16	14-Apr-16	22-Mar-16
<u>Euclid</u> (Gr. 12)	12-Apr-16	13-Apr-16	22-Mar-16
<u>Canadian Senior and Intermediate Mathematics Contests</u>	25-Nov-15	26-Nov-15	10-Nov-15
<u>Canadian Team Mathematics Contest</u>	06-Apr-16 (at uWaterloo) 07-Apr-16 (in schools)	07-Apr-16	16-Mar-16 (at uWaterloo) 25-Mar-16 (in schools)
<u>Canadian Computing Competition</u>	17-Feb-16	18-Feb-16	04-Feb-16
<u>Beaver Computing Challenge</u>	week of 09-Nov-15	<u>contact us</u>	26-Oct-15

<http://cemc.uwaterloo.ca/contests/contests.html>



Conferences:



NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS

April 5–8, 2017 • San Antonio

Join more than 9,000 of your mathematics education peers at the premier math education event of the year. Registration and travel information is available at <http://www.nctm.org>

Future Dates	
Year	City
April 5-8, 2017	San Antonio
April 25-28, 2018	Washington, D.C.
April 3-6, 2019	San Diego



The CENTRE for EDUCATION
in MATHEMATICS and COMPUTING

Conference for Math Teachers

Dates:	August 23rd – August 25th 2016
Location:	University of Waterloo Campus
Registration:	Opens end of March
Fee:	\$150 per participant (includes breakfast, lunch and dinner)

<http://www.cemc.uwaterloo.ca/events/mathteachers.html>



OAME Ontario Association for Mathematics Education

Annual Conference 2016

May 5-7, Barrie, Ontario

Webinars and Webcasts from NCTM

<http://www.nctm.org/Conferences-and-Professional-Development>

E-seminars are recorded professional development webinars with facilitator guide and handouts. E-seminars are free for NCTM members.

Webcasts of Annual Meeting Keynote Sessions offer notable and thought provoking leaders in math education and related fields as they inspire attendees at NCTM Conferences.

Topics include:

- Differentiating Instruction in Math: It's Not as Hard as You Think
- Splash or Splat: Modeling the High-Dive Problem from the Interactive Mathematics Program
- Focus in High School Mathematics: Reasoning and Sense Making
- Mathematics and Engineering: Design Projects to Middle School Students
- Do You Expect Me to Find All the Pebbles in the World? (Hermione Granger)
- Sudoku Variations: Supporting Understanding Across the Mathematics Curriculum
- Supporting English Language Learners (ELLs) in Math Class
- Sharing Cat Games and Cookies: Students with Learning Disabilities Investigate and Represent Multiplication and Division
- The Number Line's Importance in Understanding Fractions



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Nova Scotia's Hands-On Science Centre

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MAP TO THE STARS: September 25
SCARY SCIENCE: October 23
LEAVE IT TO AUTUMN: November 13
DINOSAUR STOMP: November 26

Book early! PD Day camps regularly sell out.

[CLICK HERE](#) for camp details & registration.