



"HOW ARE YOU STUDYING FOR MIDTERMS?"

PLEASE PRETEND YOU'RE STUDYING EVEN IF YOU AREN'T, WE NEED THESE ANSWERS TO FILL SPACE.

Welcome to the **mastHEAD**, folks. This isn't going to be a particularly exciting one, but neither will it be particularly less exciting than any other **mastHEAD**.

Our issue this time is a slightly shorter one, which means you can carry more copies of it in your backpacks, purses, and briefcases to distribute to friends and family! We do have a few **profQUOTES** this time, but it never hurts to send more.

This issue was originally going to be about women's fitness, and the cover reflects that. However, we neglected to run this concept by our writers, who wrote on a variety of subjects. So no women's fitness this time around.

The esteemed Prof. Gabriel Gauthier-Shalom is here with answers to all your burning questions! Get to know his viewpoints on topics ranging from juggling to Scrabble!

We also have a very nice **gridWORD** and **haltingPROBLEM** for this week's **puzzleSOLVERS**. If you haven't tried the masyu puzzles yet, please do. Even though we don't offer a real prize for it (unlike the \$5 Math CnD certificate we give you for being the **gridWORD** winner), it's still a fun puzzle to put your mind on if you need a break from things!

For those returning to us after reading v137i2, you might be curious about the sonicsona mentioned in the **mastHEAD**. You're in for a treat, since itorED's sonicsona is somewhere in this issue! And their frogsona. And Sonic himself. Good stuff.

Now that I've talked at length about the issue, it's time to talk about my personal life like a true professional. I've gotta say, interviewers never seem impressed when I bring up **mathNEWS**. They're always like "but I asked what *technical* project you're most proud of" or "why are you listing all the profs you've featured" or even "please stop shoving the issue of **mathNEWS** you are holding into the webcam, I cannot read this". I tell you, one day they'll realise the beauty of **mathNEWS**!! One day!! (And on that day, it will already have been too late. **mathNEWS** will have already transcended their very beings.)

That's all for now, folks. Have a good one.

itorED
Editor, **mathNEWS**

swindLED
Editor, **mathNEWS**

NEW&CONFUSED | Hoho, I'm done (for now).

Read over notes.
Read over textbook.

SAMCO | Redo assignments.
Practice from textbook.
Procrastinate.

AC | Live in DC, live in MC, sleep in SLC.

SIGGSEGV | Using my textbook as a pillow so the content moves to my brain by osmosis.

VARIOUS PSEUDONYMS | Tattooing my notes on my retinas.

WALDO@<3LE-GASP.CA | Computer labs are my friends.

NEWER & MORE CONFUSED | Studying my prof's personality to predict questions that will show up.

NEWEST & MORE CONFUSED | Re-learning how to write legibly with a pencil.

YCLEPED | Small batch artisanal studying.

SWINDLED | Studiously pretending they don't exist.

ITORED | Who needs midterms when each of your assignments is worth 12.5%?!

TBDED | Transcribing all my notes into the medium of bee-dance.

ARTICLE OF THE ISSUE

This week's Article of the Issue goes to A Broth-Broiled Warrior for *At Arms : A Surrealist Reflection on a Cycle of Trial and Error!*

The Flambéd Warrior, as I believe is his preferred name, gives a sober and pensive look at the finer details of modern surrealist boxing. The subtle nuances and homages build upon each other, crescendoing to a glorious finale that left all the editors wondering what the hell it was even about.

An honourable mention goes out to New&Confused for having the courage to sass Dan Wolczuk via **mathNEWS** article. The editors debated for a while, but ultimately decided to give the award to an author who had not received it yet this term. Thanks for always giving us such great articles!

Try not to get KO-ed by your midterms!

MICHELLE ZHU, **mathNEWS** EDITOR FOR SPRING 2018
ALONG WITH ESTHER AHN, CLYDE BROWN, ANUJ OPAL, AND HEATHER STONEHOUSE

mathASKS 137.3

FEATURING PROF. GABRIEL GAUTHIER-SHALOM

AC: WHAT'S ONE OF THE LONGEST WORDS YOU'VE MADE IN SCRABBLE?

I extended an 8 letter word to 13 letters once, but I can't remember what it was... For me it's more interesting to talk about longest bingos. A bingo is when you play all seven tiles on your rack, which earns you 50 extra points. My longest is "revertible" played through the letters "RE-E-----" on the board. The holy grail for me would be a ten+ letter word through three+ disconnected letters. Scrabble god Nigel Richards once played "chlorodyne" through the letters "---O-O---E" on the board!

S-UNIT: DO YOU THINK SUPERSINGULAR ELLIPTIC CURVE CRYPTO IS VIABLE?

No? For an elliptic curve E to function properly in classical elliptic curve cryptography, it must have a difficult discrete logarithm problem (DLP). In a nutshell: you can multiply a point P on E by an integer k to obtain a new point $Q=kP$ on E ; the DLP asks how difficult it is to compute the value of k , given only the points P and Q on E . It's important to choose your curve E wisely! Supersingular curves are a bad choice, due to the MOV attack, which makes the DLP very weak... Fun fact: the "M" in MOV is our very own Alfred Menezes.

SAMCO: WHERE IS THE BEST PLACE TO GO FOR VACATION?

Math camp. Specifically the Ross Program, which sucks your soul out, but spits it back out in a stronger form.

SIGSEGV: IS THERE A JUGGLING-BASED CRYPTOSYSTEM?

Not that I know of. There is some cool juggling-based math, involving made-up words like "positroid".

VARIOUS PSEUDONYMS: WHAT'S AN INTERESTING PIECE OF MATH/C&O/CRYPTOGRAPHY TRIVIA YOU'D LIKE TO SHARE?

Long ago, the comfy lounge had very, very comfy sofas. I may or may not have slept there at some point in my grad student life. (*Editor's Note: The mathNEWS office has one of the original sofas from the comfy lounge! Come by to take a nap [Other Editor's Note: mathSOC has informed us that the zoning laws do not allow people to reside in the mathNEWS office. Do not sleep on the mathNEWS office couch]*)

WALDO@<3.LE-GASP.CA: COMBINATORICS OR OPTIMIZATION?

The optimal choice is to learn a combination of both.

A MIEDIOCRE KITTY: HOW DOES IT FEEL TO BE DONE YOUR PHD?

Much relief. At the same time, it's scary to no longer be a student... I still go to the C&O secretaries whenever I have a problem in life.

ITORED: HOW LONG HAVE YOU BEEN JUGGLING FOR?

I started in 2004, at math camp. I spent 8 weeks at the Ross Program in Columbus, Ohio. We had difficult problem sets to do. EVERY. SINGLE. DAY. To alleviate my newfound hatred for life, I started juggling in my spare time. Fun fact: the counselor who taught me was Matthew Satriano, who is now a professor at UW!

YCLEPED: YOU'VE BEEN PROMINENTLY FEATURED IN profQUOTES IN THE PAST. DO YOU HAVE A FAVOURITE QUOTE? ARE THERE ANY YOU'D LIKE TO PROVIDE CONTEXT FOR?

My favourite is "Don't forget that you are insignificant". I would not like to provide context. I swear it wasn't as bad as it sounds though...

A SUCCESSFUL HOSTAGE NEGOTIATION

Last issue, I published "A Ransom Note to Die For," an article describing my attempt to hold a die (d6) belonging to the STAT 333 Instructors hostage in exchange for a random amount of money determined by rolling the day until the ransom was paid.

In the article, I illustrated what the expected ransom payment would be under some key assumptions, and somehow the Instructors were actually impressed by my efforts and provided me with an additional challenge via Piazza: calculate the variance of the ransom.

With the assistance of my accomplice, Student T, we gave a correct response. I will leave the proof as an exercise for more motivated readers, but the variance turned out to be 158.668 (to three decimals). I also included a new offer for the ransom: a timbit reward for the students of STAT 333. Miraculously, the offer was accepted.

So, with a heavy heart, I am making good on my promise to return the die safely. At the time of publication, Snake Eye the Die should be at home with its family of dice in Diana's office (unless the Instructors have decided to leave SEtD in my care).

As I stand at the end of my time as a captor, I've come to the realization that I actually had quite a bit of fun. Remember kids, hostage taking is only a crime if they call the police! I look forward to writing about my next hostage negotiation! (Watch your candy bag, Emily)

New&Confused

profQUOTES 137.1

STAT 331: NAGHAM MOHAMMAD

- “ And when I see my students sleeping, I'm gonna sleep with them.
- “ Okay, I'm gonna open [the question] again. Don't let me be sad or angry.
- “ Oh good, you don't hate me.
- “ I'm gonna open up the question again. If you get it wrong, I'm gonna follow you.

STAT 333: DIANA SKRZYDLO

- “ I got three sevens rolling two dice this morning. (Class oohs) It's not that impressive, it's the most likely outcome.
- “ If you wait long enough, success will find you.

ACTSC 331: EMILY KOZLOWSKI

- “ In actuarial notation we use "p"s and "q"s, so mind your "p"s and "q"s. (Mild laughter) I think that's a saying.
- “ I'd like to take off my sweater, but I'm not sure if that's appropriate.
- “ Poor guy, he probably dropped my course last year because he doesn't want to deal with me, but he's stuck with me again!

CS 200: BARBARA DALY

- “ Was that lighting? Thunder? No, it was thunder! You can't hear lightning.
- “ I did this demo 8 times yesterday and it worked. We'll pretend it worked today.
- “ We still have these pixels getting excited, they're just getting excited in a different way.
- “ Prof: Where is everyone? Oh...it was Bomber Wednesday yesterday, but I heard it's not really a thing this term?
Student: It only runs some weeks.
Prof: Oh I'm so sorry. That's how I survived summer terms.
- “ You want to be in control... which reminds me... GO VOTE TODAY
- “ Profs get photo class lists. All your lovely WatCard pictures. Some are hilarious. Some of you have really changed and look much better now.

STAT 337: CECILIA COTTON

- “ One of my goals by the end of this course is for you to have a confounder beacon in your minds.

PMATH 320: BENOIT CHARBONNEAU

- “ Some of you are carrying prisms of knowledge very often.

TRANSLATING STUDENTESE

Last issue, the god of math himself, Dan Wolczuk, wrote an article as part of his **profTHOUGHTS** entitled "Translating Instructorese," in which he explained what he and other instructors mean when using some common phrases.

His Highness provided some very useful and meaningful insight, and while I'm sure the **mathNEWS** readership appreciates these pointers, I felt that it would only be appropriate to meet his article with a response in true **mathNEWS** fashion: with wit and uncontrollable crying.

With that in mind, enjoy this preliminary translation of common Studentese phrases.

Will that be on the test?: Please don't put this on the test. We enjoy that you are so passionate about including this six-board proof of an essential theorem, but if you ask us to replicate it for the test, we will revolt.

Yes, you have answered my question: No, you have answered everything except my specific question. However, we have been continuing this exchange for ten minutes now, and I'm starting to get tired of this.

Does this midterm/assignment/quiz answer I gave look right?: I know that this is wrong, but I really need an extra mark or two to keep me in my current academic standing.

Have you posted the lecture notes?: I don't know anyone in this class, and I missed the previous lecture(s). Please post the notes. Please.

(Silence): 95% of the class knows the answer to the question you asked, but the potential embarrassment of providing a false answer to your question is great enough to discourage us. If you start bribing us with participation marks or candy, then we'll talk.

Hopefully this helps. I realize that times have changed, but any effort you can give to try to accommodate our awkwardness is appreciated.

NWS RULE THE WAVES

Turn of the century ironclads to dreadnoughts.

For this article I am torn between trying to point out the enjoyable aspects of the Naval War Simulator's Rule the Waves game, and the horrible job done with documentation and providing a streamlined experience. While this game is an enjoyable 're-creation' of early 1900s Naval Designs and strategies (even for someone who previously knew nothing of such things), the game is made by a small company that make niche games for a small community, and has a serious problem with giving the player information.

So, the good: You are the head of a big power navy at the turn of the 20th century (1900-1925), you get to design your ships to meet the challenges you face, and you get to deploy your ships around the world and in battles. You have some control over national policy and diplomacy by providing your opinion on randomized events and making requests, while not having full control of the nation, as the politicians sometimes cut your funding or demand something you do not want/need to be built. You have a decent level of control for ship building; designating armour levels, where weapon mounts go, and with options like cross-deck fire or leaving your crew with cramped quarters. You then can manage your budget and funds to build ships, forts, and bases, fund research, maintain your ships, spy on other nations, and deploy fleets around the world to protect your interests or prepare for an invasion.

This is nice and all, but the game has problems and they are mostly to do with poor user interface design. There is no tutorial to explain mechanics, and the manual that the game comes with both lacks details that you should know, and directs you to a different manual from an earlier game to explain how to control your ships in a battle. The game is built like a spreadsheet with multiple tabs containing different lists, and with only a single window available at a time to show the details of something, making comparisons cumbersome. Ship design, while enjoyable, is done through a window filled with nothing but drop-down menus. It shows you the time and cost of building a ship, but for some reason neglects to show the maintenance cost. There is an auto-design option for ships that can create illegal ship designs (designs that the game will not allow you to use, the conditions for which are not entirely clear either). Fighting is performed with you mostly moving the ships and choosing when to shoot or not, but because of lack of good feedback and the historically poor accuracy, you will be left uncertain of your effect on the enemy and thus it is difficult to adapt and improve your tactics.

The game is fun, and if you are the kind of person who likes looking at spreadsheets and trying to create things it should be up your alley. However, the serious problems it has with user friendliness prevents me from suggesting people buy it.

Soviet Canadian

OPERATION N-1: ARMAGEDDON PLAN

Say you want to destroy the world. Your best plan at the moment is to somehow get a madman leading the US, China, or Russia. Xi Jinping and Vladimir Putin, as opposed to our cultural values as they are, are not madmen. Lucky for you, you cultist death worshiper, I have envisioned a plan.

Sitting around with the other writers, many have suggested that this time we should actually burn down the White House to make Trump's story correct. This won't work on this madman. That would just make him want to invade Canada, we'd have Parliament demolished and an autocratic subservient banana republic put in place to enforce American hegemony.

Instead, I would recommend going after him where he will go most ballistic: destroy the main Trump Tower in NYC, his pride and joy. It is so important to him that he had the Secret Service set up a detachment there for forever. It is the embodiment of the narcissism inherent to his personality. When the World Trade Center towers came down, his first thought was that his tower was now closer to being the tallest tower.

To further wound his ego, you need to do it in a way that doesn't stroke his ego. The way to do this is to destroy the building with another building which is ostensibly more important than his. Within the last decade, only a block away from Trump Tower, 432 Park Avenue, a condo tower that is taller than the twin towers of the World Trade Center has been built, which dwarfs Trump Tower considerably. You destroy this building in a way so that it falls over onto Trump Tower, and make it clear that 432 Park was the intended target, sidelining Trump. This will infuriate him, that his home that was supposed to be his acceptance into the American elite was not even good enough to be a terrorist target.

You then convince him that the terrorists were funded by the Chinese, and laugh as the world blows up around you.

IceNine

**Need a résumé builder?
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**A mathNEWS EDITOR
WHO'S TOTALLY STILL
ALIVE INSIDE, PROMISE.**

JAMES COMEY APPLIES TO THE ROLE OF SPYMASTER GENERAL OF CANADA

Over the past week, King Trumpius of America decided to dispatch emissaries to all of the town criers to establish a narrative of betrayal from the Dominion of the North.

Under dark of night, the spymaster of the previous dynasty, Sir James Comey, was whisked up through the maple road to support the current Canadian dynasty and defend the integrity of the trade routes on the continent.



When asked whether or not he could crush peasant rebellions and enforce stability within Canada as the new spymaster, Sir James Comey responded with, "I was hired by Trudeau. His family has a long history of quashing dissent and separatists, they picked me for a reason."

IceNine

Ceci n'est pas filler.

A SURREALIST blackBOX

AT ARMS

A SURREALIST REFLECTION ON A CYCLE OF TRIAL AND ERROR

[ALSO HI GUYS HOW'S IT GOING I MISS YOU please don't put this part in the paper] (*Editor's Note: it's in the paper.*)

My face. Always, my face.

My stamina fades a little more with each strike. I don't care. If I can stand, I can strike. I cast my fists a world away. I leave my marks. I weave. I dodge. I am thrown to the ground.

I hear a shout. Kilo. Oscar. The world fades. Where am I now?

Here is flat. I see only some frozen faces. They float in the ether, mine among them. I am frozen too.

I wiggle. I jump. I try to shout. Nothing works. I can only wait, others doing the same.

I feel something pulling me. Into a portal. Pictures of my destination flash before my eyes. The universe turns dark.

I am in a graveyard. Before me, a psychopath. A wicked smile, acid green hair.

She laughs. She screams. She has metal monsters for hands. They bite at me.

But I've returned to the third dimension. I am corporeal once more.

I can move.

I dodge. I weave. I fight. I fall.

Kilo. Oscar.

The planar prison again. I wiggle. I jump. I try, *try*, **try** to shout. I can't. I wait. A portal. A temple. A man with muscles of brass. A savage beating. Kilo. Oscar. It keeps repeating.

A mummy at a concert. Imprisonment. An android at a restaurant. Confinement. A pop star in a lab. Planarity.

Kilo. Oscar. Kilo. Oscar. Kilo. Oscar. Always the same. Unchanging.

This cycle has no end. I need to get out.

I lay down my arms.

The room goes dark.

I walk away.

A Broth-Broiled Warrior

"...and *that* is why ARMS isn't just a 'stupid kids game', Ron."

A COMPREHENSIVE GUIDE TO E3

How much do you like shared open world RPGs and battle royales? A lot? A little? Very little? It doesn't matter, since you're getting all the ones you saw at last year's E3 and more.

One such game is Fallout 76, a survival multiplayer rather than single player RPG release from Bethesda that instantly divided the fanbase.

There was a title card drop for Elder Scrolls 6, which is all I really needed this year.

There was a 1000 player battle royale in the PC Gaming show, AKA Fortnite but you have to wait for 900 people to get offed before you start having fun.

There's Assassin's Creed Odyssey, surprisingly not part of Ubisoft's crossovers with Nintendo.

There's Kingdom Hearts 3, where the teenage protagonist Sora's voice actor was actually a teenager back in '05 and is now reprising his role at the age of 30. Not only do they have 13 years of Disney movies to cover from Ratatouille to Tangled to Frozen, the Mouse has also assimilated Star Wars and Marvel since KH2 - anything goes for the worlds Sora will visit this decade.

EA has unveiled their latest plan to extort their player base, touting "no lootboxes" while quietly considering a dozen other MTX (microtransaction) plans. But I've been told Battlefield V (includes battle royale) looks nice.

Microsoft featured a new open-world Forza with battle royale (checks off all the boxes), another Halo sure to be packed with twice as much MTX as Halo 5, a Shonen Jump 3D fighter, a new Battletoads, another Tomb Raider, and Devil May Cry 5 featuring Dante from the Devil May Cry series.

At the time of writing, Sony and Nintendo have yet to present. Here's what I expect from them, in a list that will not age well at all:

Sony: The Last of Us Part 2, Knack 3, Spyro remake gameplay, PS4 exclusive Final Fantasy 7 remake, remakes remakes remakes. Call of Duty limps onward with Black Ops IIII (seriously. Stay tuned for Black Ops IIIII...).

Nintendo: Metroid news, lack of Fire Emblem news, riots in the Pokemon fanbase, way too much Splatoon and ARMS. Expected (pipe dream) characters for Smash 5 include Crash Bandicoot and Waluigi.

N REASONS TO START GIVING REWARDS FOR ANSWERING QUESTIONS IN CLASS

- Students will actually answer.
- It will take less time to get an answer, so class can keep moving.
- Your students will be more likely to attend class.
- *Students will actually answer.*
- You get to feel like a philanthropist for poor students.
- Your students might actually acknowledge your existence outside of class/office hours.
- *Students will actually answer.*
- **STUDENTS WILL ACTUALLY ANSWER.**

New&Confused



THE mathNEWS STYLE/ SUBMISSION GUIDE

We've gotten a few articles lately that have given the editors a hard time, so I thought I'd take the time to define some best practices. **These are not hard rules that must be followed.** They are suggestions to make the lives of the editors easier, and ultimately make a better paper. So without further ado:

GIVE US AS LITTLE LATEX AS POSSIBLE

Many people think we use LaTeX to build **mathNEWS**, which admittedly is a reasonable assumption since we are about math after all. However, as the majority of our content is text, we have been using Adobe InDesign for nearly 6 years. LaTeX should be used for individual formulae, not for entire articles or your authorial sign-off.

USE THE WORDPRESS

Email and physical submission of articles will always be accepted, but if you write articles often, please submit via Wordpress. It is the easiest platform for us to proofread and organize submissions. If you do not have an account on the **mathNEWS** Wordpress, send an email to mathnews@gmail.com and we will create one for you.

SAVE AND TAG YOUR ARTICLES

All articles submitted through our Wordpress should be saved as drafts and tagged with that issue's tag in the format v###i#. Tagging helps us identify which articles are completed and intended for an issue, rather than abandoned half-finished drafts.

ARTICLE LENGTH

We prefer articles to fit on a single page. This is equivalent to a word limit of roughly 850 words, not including title and author sign off. We occasionally allow multi-page articles, but usually only for **profTHOUGHTS** articles and other significant articles that deserve the extra space, such as last issue's election article.



FORMATTING

The **mathNEWS** issue template supports a variety of rich text features such as subtitles, headings and sub-headings, lists, footnotes, quotes and more. For the most part, just format your article the way you want it to look and we'll figure things out.

SPECIAL FORMATTING

The look and feel of **mathNEWS** is ideally consistent across all submitted content. Unless there is an extremely good reason for it, we will not allow special formatting like custom fonts or right-aligned text. Small requests such as the location of an image are often fine. Other formatting requests we will honour are ones concerning poetry or blocks of code.

SUMISSION DEADLINE

Articles and other submissions should be completed with all edits by 9 AM Eastern the Tuesday after production night. Building an issue of **mathNEWS** is a time consuming process, and we have less than 48 hours to do it in order to ensure the issue is printed on time. As such, if you submit an article or edit your article after the deadline there is no guarantee we will be able to get your submission into that week's issue.

WHAT mathNEWS WILL PRINT

To summarize the purpose of **mathNEWS** as defined in our constitution, **mathNEWS** exists to do 3 things. First, inform readers about events put on by MathSOC/FEDS/Faculty of Math/University of Waterloo/etc. Second, entertain readers through a variety of media, in a humorous or serious, fictional or non-fictional manner. Third, provide a platform for students of the Faculty of Mathematics to express themselves.

We will print your comics. We will print your artwork. We will print your political editorials. We will print your movie reviews. We will print your poetry. We will advertise your campus event. We will advertise your co-op info session. We'll print nearly anything, really, with only a few exceptions.

WHAT mathNEWS WILL NOT PRINT

The main constraints on what we will print are either determined by legal issues, or by the fundamental nature of **mathNEWS** as an official Math Faculty publication. We will not print anything that risks legal ramifications; most often resulting from copyright grey areas. We will not print anything that is not relevant to undergraduate Math students, such as events put on by other faculties. Despite what many local start-ups seem to believe, we do not do paid advertisements (it's only ever companies with names ending in .ai somehow). Apart from those, we will screen your content to catch anything unnecessarily offensive or low-effort.

N REASONS TO VISIT THE mathNEWS OFFICE

- If you win a prize from Article of the Issue or the **gridWORD**, you can come by to pick it up!
- The editors are quite amiable. Feel free to talk to them, they are often lonelier than you would think.
- We have staplers and are not afraid to staple your assignments in exchange for your recognition of **mathNEWS** as a city-state.
- There is a large "Vanilla Coke" cardboard cutout in the office. You can take nice pictures with it. At least one person uses theirs as a Tinder pic.
- You can flip through our Red Books, the bound copies of old **mathNEWS** issues dating from 1976 onwards. There are also a few special issues of **mathNEWS**, like the magazine issue, *Cosmathpolitan*.
- View our collection of old pop cans! We also have a very special bottle of Orbitz, with flavour labelled as "Raspberry Citrus". Apparently, unopened bottles of Orbitz are now a collector's item! So please don't steal ours. We need it for when **mathNEWS** falls, as our constitution rules that the sitting editors during the term of falling are required to drink the Orbitz.
- If you're a **mathNEWS** junkie, the office is the place to go to get your very own copies of old **mathNEWS** issues! We have literally boxes of them, with issues from years into the past. Please take them, we really don't have room for them anymore. It'd also free up room for more people to stand in **mathNEWS** at any given time!
- Nap on the couch. Our couch dates from pre-comfy-couch-replacement days, and it's super easy to fall asleep on. Just don't lose anything between the couch cracks, as those are rumoured to have claimed many a stray phone. It's always possible to dig around and find your items again, but you may sacrifice your sanity (and cleanliness) in the process.

- Nurse the editors back to health. This is not required, but they often forget to eat and drink during the days before an issue comes out. Doing this will endear you to them, and forming alliances is becoming more and more important in the modern world.

itorED

N WATERLOO-THEMED POKEMON

- Mr. Goose: You know exactly what this is without me explaining it. Legendary Pokemon.
- Pindsor: The Pink Windsor Tie Pokemon. The starter Pokemon of all students in the Math Faculty.
- Sadeyes: The Midterm Pokemon. Forcibly acquired by all trainers up to twice each term. Cannot be released.
- Solculator: The Solar-Powered Abacus Pokemon. Has two forms: Blue Goggle and Pink Tie. Essential for trainers in the Math and Engineering Faculties.

New&Confused



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UW'S BASTION OF ERUDITE THOUGHT SINCE 1973

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gridCOMMENT 137.3

Y'all came through with actual completed puzzle submissions last time! Thanks for making this puzzlemaster feel like he didn't mangle the **gridWORD** tradition too badly on his first at-bat. There were no correct submissions, but there WAS a 3-way tie (at one error apiece) among A-train, Joseph and Scott's Tots (a team effort, I presume?).

So we turn to the **gridQUESTION** as the tie-breaker. The question was "If **mathNEWS** were a political party, who would be running for us in the provincial election?" Scott's Tots think we should be represented by Doug Ford, but they also think algorithmic is spelled with a "k" so draw your own conclusions. In a display of bracing modesty, A-train answered "me, tbh". However, after conferring with two of my esteemed co-editors we have to give the prize to Joseph who says "I don't know, but I'm sure they'd be better than the actual candidates." Why thank you Joseph, we too think we would all make excellent political candidates. You can come by the **mathNEWS** office (MC3030) to claim your prize.

Last week's theme was a little on the nose, being simply "math". This week's theme, on the other hand, is all over the map! I hope you guys have fun figuring it out :)

For the **gridQUESTION**, a challenge: If you complete the puzzle, and figure out the theme, submit a possible theme-related answer that doesn't appear in this **gridWORD**, and a clever clue to go along with it.

Submissions are due by 6pm on Monday, June 25th, either in the **BLACK BOX** next to the Math C&D, or via e-mail to mathnews@gmail.com

Happy puzzling!

yclePED

ACROSS

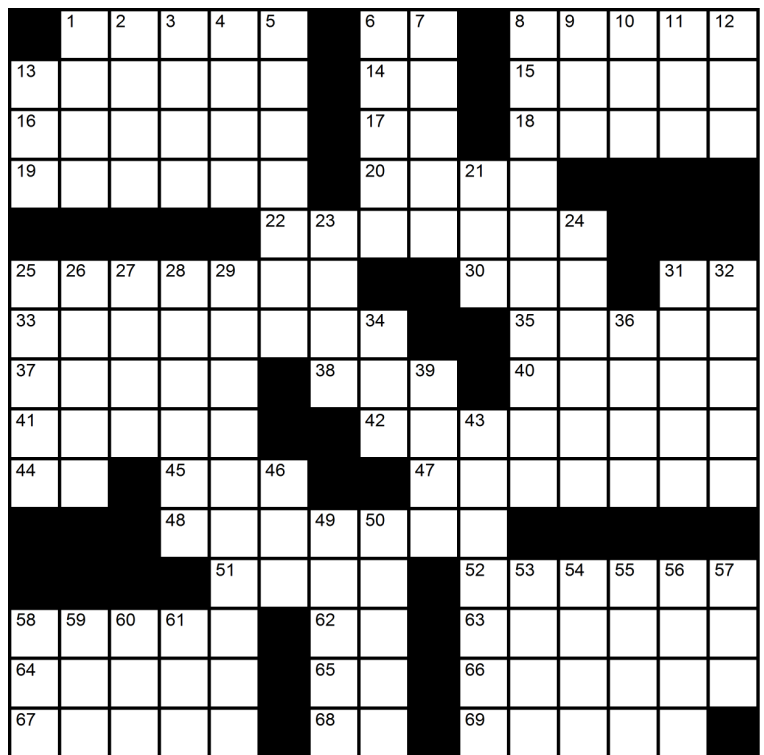
- 1 Android gadget to help your baby sleep
- 6 Co-__
- 8 SYS__
- 13 Last week's big winners in Ontario
- 14 Fro's mate
- 15 Worker bee
- 16 Styx's "Mr. ____"
- 17 You probably have lots of this to do right now
- 18 Believer
- 19 Lots of Waterloo grads get careers ____ (2 wds.)
- 20 Reactions to a mouse
- 22 Vermeer's girl had one, famously
- 25 United Kingdom Special Forces: Special Reconnaissance Regiment (abbr.)
- 30 Oui's opposite
- 31 (See 36 down)
- 33 Teeny tiny engineering
- 35 According to one source, someone who is annoying but also low-key ratchet
- 37 Tim & Eric's preferred balloon brand
- 38 Gender swapped version of 2013 Spike Jonze hit?
- 40 Cousin of a giraffe
- 41 What you want in a powerful 66-Across
- 42 Everyone in this school probably has at least one of these
- 44 c.c.
- 45 Will Ferrell Christmas Movie
- 47 Berry-like fruit used in fragrances
- 48 Pokes fun at
- 51 When combined with UW's most invasive species, a fine French vodka
- 52 Main ingredienrt in marinara sauce

- 58 One instance of an Outback bird
- 62 Al Gore's "___ Inconvenient Truth"
- 63 "My baby makes me ____ the knees" (2 wds.)
- 64 "You're only ____"
- 65 Campus building where you can see lots of ties
- 66 Babbage proposed an analytical one
- 67 An interface between two immiscible electrolyte solutions
- 68 "Holding hands" in old chat room lingo
- 69 Common abbrev. used on bridal sites

DOWN

- 1 Main campus of Conestoga College
- 2 Spheres
- 3 Cell block brawl
- 4 Parcel (out)
- 5 Une molécule qui a la même formule brute mais une structure différente
- 6 An enemy on LOST
- 7 "Everything in the world is about sex except sex. Sex is about ____." - Oscar Wilde
- 8 Fails to convert mash into beer
- 9 Dr. ____
- 10 Miss Piggy's autonym
- 11 ___ & outs
- 12 What's left after expenses
- 13 Prefix with -ad, -angle, -cities
- 21 They're related
- 23 Riverdale character, for short
- 24 Back-to-back 3-letter words which rhyme and are both valid Scrabble words
- 25 Declaw, metaphorically
- 26 You may have faced him in Mortal Kombat
- 27 "___ (Hey Oh)" by RHCP

- 28 A ___ in the ___ house (2 wds.)
- 29 Weapons of choice for many decorators
- 31 Visit Anne's island
- 32 Tweet (in the conventional sense)
- 34 Kool-Aid alternative
- 36 If you're not in this building right now, you're quite possibly in 31 across.
- 39 And then some
- 43 Tiniest
- 46 Chemin de ___
- 49 Panic! at the Disco's "___ of a Bachelor"
- 50 Twin Peaks auteur
- 53 Las Vegas alternative, drunkenly
- 54 O.Henry's "The Gift of the ___"
- 55 Similar (to)
- 56 Half of the pop duo behind "That's Not My Name"
- 57 Multiplicative identity, often
- 58 Yellowfin tuna
- 59 Fruitcake
- 60 Brit. recording giant
- 61 West of Hollywood



LOOKAHEAD

SUN JUNE 17

Father's day

MON JUNE 18

Last day to get 50% tuition refund for dropped courses

WED JUNE 20

THU JUNE 21

Midsummer's day

FRI JUNE 22

SAT JUNE 23

SUN JUNE 24

mathNEWS 137.4 production night

MON JUNE 25

TUE JUNE 26

WED JUNE 27

THU JUNE 28

FRI JUNE 29

mathNEWS 137.4 published

Last day to become Fees Arranged

SAT JUNE 30

MEF SEZ

Hello everyone! I've got some updates for you from your friendly neighbourhood endowment fund!

FUNDING PROPOSALS

tl;dr: we are MEF, you want monies? give us reasons.

Group funding proposals for the Math Endowment Fund (MEF) are now open! Proposal forms can be found at <https://tinyurl.com/mef-proposal> or outside the ~~free campy tent~~ MathSoc office (MC 3038) and are due on **June 22 at 5pm ET**.

Have you been dying to attend a hackathon, case competition, or conference, but couldn't because the price to attend was too high? You may be able to receive up to \$750 in funding through professional development funding! These proposal forms can be found at <https://tinyurl.com/mef-professional>. There's no due date for professional development

funding, but they are **first-come, first-served**, so get your proposal forms in!

FUNDING COUNCIL NOMINATIONS

tl;dr: rep your year/program. give out \$175k. get free food.

Want to have a say in how over \$175,000 is spent? Join the funding council! We're looking for year reps (3 reps per year) and program reps (2 reps per program)³. This is a low-commitment position and will only require you to attend 2 evening meetings in early July. Also, free food that will most likely not be pizza⁴ (unlike a certain fortnightly publication). More info about funding council, including nomination forms, can be found at <https://tinyurl.com/mef-council>. Forms can be also found outside the MathSoc office. Nomination forms are due on **June 15th at 5pm ET**.

Submit all forms to the MathSoc office or email them to me at mefcom@uwaterloo.ca.

If you have any questions (or want free sticky notes and laptop stickers⁵), feel free to send me an email!

Have a great term!

Alex Lee
Executive Director, Spring 2018
Math Endowment Fund

1. 4pm Central Time, 2 pm Pacific Time, 11pm Central European Summer Time
2. Insert "too damn high!" meme here.
3. Including CFM and Software Engineering!
4. No guarantees.
5. I'm being serious.