



## “WHAT’S SOMETHING YOU WISH OTHERS KNEW ABOUT YOU?”

How’s it going, my loveliest readers?

You may have noticed that this term, I have written 300% more **mastHEADS** this term than any other editor. There is a very simple reason for this — I like writing **mastHEADS**! I get to be the first non-cover page of the issue, and you... well, you don’t really get anything out of it. I guess I remind you that you’re my loveliest readers? Maybe that’s important?

Now, since you *are* my loveliest readers and you *do* read every issue of **mathNEWS** cover-to-cover and don’t skip a single word, let me repay the favor by talking a little bit about this issue. That’s something the **mathNEWS** editors of issues past tended to do more often, but it seems like the practice has fallen by the wayside. Let’s try to bring it back!

So, when you do inevitably read through this issue cover-to-cover, you’ll find gems like:

- **mathNEWS** naming Canada’s next Prime Minister,
- goose slander by duck fans,
- Garfield, for some reason,
- sweet, sweet **profQUOTES**,

and much more. I won’t keep you much longer, because I’ve already written the AOTI text below and I’m running out of space. Enjoy the content, and remember to like and subscribe!

caffeinatED  
Editor, **mathNEWS**

## ARTICLE OF THE ISSUE

Your *mOOOm*, thank you for sharing *The Space Between* with us. The amount of joy you have brought to this world with your words is priceless.

And yet, we editors put a \$25 value on it, somehow. Collect your Conestoga Mall gift card from MC 3030 whenever you see us around!

caffeinatED  
Editor, **mathNEWS**

NO PUN INDENTED	that if you walk up to me and start a conversation i’ll answer and be friendly
SUNRISE PARABELLUM	I killed and ate a jogger near Banff National Park in the summer of 2017.
KARPHOOZI	I insulted a kid at the playground and proceeded to hide in a bush and come back out pretending to be my brother (I am a single child).
JEFF	Portal 2 Authoring Tools - Beta
ANDOIHI	at least ½ of myself
HELI×2	that I am in a perpetual state of confusion
TERMINAL	how i pronounce my name
ALYSSNYA	People already know way too much about me... (see page 17 of <b>mathNEWS</b> 149.6)
TENDSTOFORTYTWO	pronouns in bio (they/them)
SOMEBODY	When I was 4 I accidentally knocked out my dad with my thighs
WHOLE NUMBER HAVER	I have whole numbers
SNOWDOZER	Any answer I could give would provide only a shallow, superficial glimpse of my personality.
SEXY_SOFTWARE_BABE	I am solely motivated by food
__INIT__	__init__
JAMCHOWDER	when nobody got your back, I also don't got your back
0.423	ideally, nothing
CUTLET	I like answering personal questions :3
NOT_A_UW_STUDENT_(YET)	I don’t attend UW but I have successfully infiltrated their math/comedy newspaper. And that I’m single.
BELUGAS	How grateful I am for my friends and the ends I’d go for them
APHF	I only skim the <b>profQUOTES</b>
LARS NOOTBAAR	I successfully submitted an assignment at a <b>prodNIGHT</b> twice
MOLASSES	what soup I would match to their personality, and the extent to which I love them
BOLDBLAZER	I swear I'm not the imposter
DICK SMITHERS	My middle name
WINK WONK	nothing
NOT A N*RD	I’m psychic (but don’t ask me to show it)
CAFFEINATED	I can actually stop consuming coffee whenever I want.
DISTRACTED	I fucking despise cilantro
CLASSIFIED	anything you know about me is a government lie

## Daylight savings is over, we’re all daylight-broke now.

NAMAN SOOD, **mathNEWS** EDITOR FOR FALL 2023  
ALONG WITH EVAN GIRARDIN, DANIEL MATLIN, AWAB QURESHI, AND ISABELA SOUZA

# mathASKS 153.5

FEATURING mathNEWS EDITOR AWED

## FIRSTIE: WHO?

mathNEWS editor awED, of course! I'm a hardware enjoyer in 2A CS (god please save me god) and I'm honestly surprised I'm still alive. I've been a menacing presence at production night for more than a year, and have been rejecting your articles since last term. Come talk to me next production night!

## JEFF: WHAT IS YOUR FAVOURITE BATHROOM ON CAMPUS?

YES—I have just the one. On the end of E3 that faces DC, sandwiched between the ramp in front of the entrance, and this lab with toxic gasses, are two of the best bathrooms on campus. Both are real actual bathrooms and give you an entire room to yourself, with proper walls and a door that goes all the way to the bottom. Such low expectations we have in North America, don't we?

Due to both featuring *plenty* of space and privacy, you can come in, take off your apparel, and just *relax*. Being seldom visited, the bathroom lets you do your business in peace and solitude. I suppose the bathrooms also have other nice features like great water in the taps and a baby changing station if that's useful to you.

Long live the E3 bathrooms.

## SPYRIDON LANCET: HOW TO GET HOT BABEZ?

Find hobbies you are deeply passionate about. Make friends. Learn an instrument?? Idk. I might be misremembering, but I think the great CS prof (and secret mad scientist) Gordon Cormack once gave us the advice of “stop trying (and it'll happen eventually)”, and I feel like that's good advice.

## CAFFEINATED: WHAT'S YOUR FAVORITE CAFFENIATED DRINK?

I love tea. Only cardamom chai. And only made in the traditional *doodh pati* way. Most other tea sucks. Most coffee also sucks. Tim's especially sucks, but it's bad enough to actually be kinda nice.

I don't know, I've been trying to get away from caffeine for the past two terms. It's not exactly good for me, I feel. And I drank copious amounts of tea back home (like everyone else did).

## MOLASSES: WHAT'S YOUR FAVOURITE PART OF WEB DEVELOPMENT HELL?

Writing an app with *[insert framework]* only for it to update with breaking changes.

## CLASSIFIED: HOW DARE YOU?

People have in the past asked me a variation of this, “awED, how do you dare to do things? How do you find the courage?”.

Doing things is inherently scary. It is the human condition to be scared of change. And, whilst forcing yourself to muster up courage is good sometimes, it is, in my opinion, ultimately unhealthy to always be in that mindset.

I thought when I was younger that I could push myself to do anything. I still do. But, due to this, I grew up fighting for things. Fighting for rights, fighting for good grades, fighting for achievements, extra-curriculars, accolades—and I was stuck in this mindset that always forced me to do things that I wasn't always ready to do. To do things without ever asking myself *why* I was doing them. Only knowing that I *must* dare to do them. That to do anything else was a failure and a weakness. I'd say yes to projects without a second thought for my sanity. I'd let people take advantage of me over and over. I'd argue for things I barely believed in. And I'd beat myself down for saying “no” because I would think that I was someone who didn't “dare” do the task requested of me.

I am now quite a bit burnt out: tired. And whilst I have lost that part of me, I've lost so much more. I do similar things at UW that I did back home, but I no longer dare to do them with the passion I once had. Hell, my lowest grade so far was the speech class I took in 1A. Public speaking used to be my greatest strength in HS. But now it's a stain on my transcript.

I think, then, that maybe instead of telling ourselves to dare to do something. We should consider, in cases, daring *not* to do something that we aren't comfortable with. Maybe true courage is not saying yes to things beyond your limits, but coming to terms with them and saying no?

## SOMEBODY: WHY?

someBODY once told me the world was gonna ro—I don't know, two best friends decided to marry off their kids and now I exist??

## YALEVOYLIAN: WHAT'S THE LORE BEHIND YOU LAUGHING UPROARIOUSLY WHEN SOMEONE SAYS “XYLOPHONE”?

Hahahaha, oh god. OK look I don't want this getting out, because then everyone will attempt to use it against me, and it'll quickly become unfunny. That said, this all started one day in grad house (no alcohol was involved) wherein I made a joke to myself about how the “x” in xylophone stood for *xtreme* and wouldn't stop laughing. Fellow writer nazz of course recorded me struggling to breathe and the rest is, well, xistory.

## BOLDBLAZER: WHAT MADE YOU BECOME AN ADVOCATE FOR NONE PIZZA WITH LEFT BEEF?

It's better than some of the serious pizza suggestions. (All writers need to come up with better pizza.)

**TENDSTOFORTYTWO: WHY, AFTER ALL YOUR TIME AS EDITOR, HAVE WE STILL NOT SEEN NONE PIZZA WITH LEFT BEEF?**

Hey, you people got the none pizza with chicken right? You're welcome. That's all I can do for now. Mossad is watching...

**POPCORN ROCK EATER <3: WHAT IS YOUR SLEEP SCHEDULE DO YOU HAVE SLEEP SCHEDULE ADVICE FOR BABY FIRST YEARS PLEASE**

My sleep schedule is quite variable and honestly non-existent. I have a million little voices (my tasks) screaming at me all day every day and as such I often find it hard to sleep consistently. Even when I finally get a good schedule going, a deadline forces me to stay up and then, well, it's over.

I do, however, have advice. First is, well, don't do what I do. Don't think of work late into the day, and don't do work in bed. Give yourself time to destress and turn off. Other than that, the second big piece of advice I have is something I myself actually follow. That is, all-nighters really aren't worth it. Sacrificing your health, sanity, and the entirety of your next day isn't worth it 90% of the time. So don't bother with them, despite what others do.

**SEXY\_SOFTWARE\_BABE: OPINIONS ON XKCD?**

I fucking love xkcd, and have read it religiously for years. I love too many of them to give a link, but one on my mind recently is <https://xkcd.com/244/>.

**TERMINAL: HAVE YOU EVER SEEN BRAD LUSHMAN AND BJARNE STROUSTRUP IN THE SAME ROOM?**

Yes actually, in my dreams. Actually, maybe my nightmares...

**0.423: WHAT ARE YOUR THOUGHTS ON THE NONE LAZEEZA?**

Why not just have shawarma pizza at this point? Then the toppings will actually be *stuck* onto the bread.

**TENDSTOFORTYTWO: WHAT'S YOUR FAVORITE PART OF BEING A mathNEWS EDITOR? LEAST FAVORITE?**

My favourite has to be admiring the issues fresh off the presses. I can't stop staring at our incredible print quality.

My least favourite is rejecting articles that could have made it in. I wish I could publish everything but sometimes things have to go for space reasons :((



## CAPITALISM... GOOD?

**PT. 2 OF ETHICS OF STEALING OFFICE SUPPLIES: A COMPREHENSIVE GUIDE FROM mathNEWS 153.4**

I'm nervous about writing this article, as this belief seems to be being less common across the world as time goes on. I might have held this belief only for a short period of time, but people have been captive for less. All I ask is that you don't come after me, and maybe by looking into the topic, you'll end up finding conclusions similar to the ones I hold. Let's start off by clearing up some misconceptions:

- Capitalists ≠ people who support capitalism as a system
- Please don't mix these up it gets really annoying
- Get rid of the idea that capitalism is bad, if you think this you need help
- Seriously, just pull yourself up by your bootstraps and—

[Loud crashing noise & muffled sounds of violence]



[Some time later]

Okay, I finally shook the last of them off. I see you got my message and sent a team to get me out of there. What do you mean "what message"? It took so much effort to make sure that the beginning of each row was the next word in my plea for rescue. Wait—if *you* didn't send the rescue team, then who did...? I guess it's not important, what matters is that I'm not being held captive to write pro-capitalism articles anymore.

Who even came up with that stupid plan? Why not just write the articles yourselves? Is it really easier to hold an author hostage for 2 weeks than to just have one of your own people write? ...Oh, never mind, I know why they went with this. They knew that regardless of how well-written their article was, all the points could be refuted in some way or another. That's why they needed someone who disagreed to write an article, so that they would know how their points would be refuted ahead of time and could try to dispute them in the original piece. Kinda clever, I guess, but apparently they completely missed the idea of just *talking* to someone with a different perspective?

For my own safety in the future, please be aware that if I ever start publishing things supporting capitalism or right-wing politics in any way, I am most likely being held hostage and forced to write without my own free will. Anyway, I think it's probably best if I lay low for a while, just in case they come after me again. Until next time!

sexy\_software\_babe

# YOU WON'T BELIEVE WHAT JUST TRANSPIRED

I opened the **mathNEWS** draft review for issue 153.4 and saw Lars Nootbaar's article about my jokey article from 153.1 with the same title as this one. Honestly, that was a throwaway article, so your response was literally the last thing I was expecting. If it weren't 2 AM I would've hollered with laughter and run off to tell my friends, but alas I'm the only one awake so here's an article about it instead.

The intended joke was that he copy-pastes his writer name from Wikipedia every time he signs off an article, instead of having it saved in the system by now (or at least having an

offline note to copy it from). I was just looking for a clickbaity title, and in the process I missed

1. that the **mathNEWS** format would put the title in all-caps, like some fucking tabloid headline, and
2. the second meaning of "transpire".

*woosh*, for both of us. Glad I made your day though :)

water

## WHAT LIES ABOVE

SELECTED PHOTOS OF SUPERTERRANEAN LOCATIONS THAT DEFINITELY EXIST



# YOU ARE NOT IMMUNE TO MODERN MARKETING

## *SOMETHING SOMETHING I HATE MONDAYS IN '87*

I have become a victim of consumerism.

They got me.

I found myself about to write an article talking about the Garfield movie trailer. I considered writing about the FNAF movie as well. I thought I was better than this.

They're tricking me into marketing for them.

Even this article right now serves as marketing propaganda simply because I mentioned their names...



Anyway, the Garfield movie trailer was released today (probably intentionally on a Monday, specifically November 13<sup>th</sup>). I will now write my thoughts with no regard for good commentary or structure. Uhhh... spoilers? For a trailer? I guess?

Chris Pratt is Garfield. Samuel L. Jackson is Garfield's dad??? I am unsure how I feel about Chris Pratt as Garfield. People seem to have mixed reviews. I'm not sure if I dislike it particularly, but it definitely is not the voice I associate with the character.

The beginning of the trailer seems to paint Garfield as an abandoned kitten, as an orphan, but then they go in and throw this new "father" character in after. The vibe of Garfield simply does not mesh with this, in my opinion. Having Garfield just be a copy of his father seems like it's betraying Garfield's vibe of being a lazy piece of shit just for the sake of it. Two of these personalities also feels redundant. Maybe it's just lazy writing? That would be in the spirit of Garfield. Actually, come to think of it, Garfield did not seem to be lazy at all. I've only seen the trailer so I don't actually know the actual plot of the movie yet, so I can't get too ahead of myself.

Baby Garfield is clearly prime marketable plushie bait. The beginning of the trailer is aww-bait and just poking at emotions to get people invested, despite really not showing much at all. I don't know if I care for it. I don't see any real reason to show baby Garfield other than some overplayed "origin story" thing, or just for the insertion of cuteness factor. That being said, baby Garfield is cute.

I think regular Garfield kinda looks like the Lorax. It made me think that it was animated by Illumination (of Minions and the Lorax infamy), but it isn't.

The fur texture on Odie makes me feel strange. I don't mind it on Garfield. Jon gives me wojak vibes.

The fourth wall breaks in the trailer also make me feel some vague nebulous sort of negative feeling. It isn't really doing anything with it other than just having it be a fourth wall

break. The trailer can't seem to decide what vibe it wants, and that means I can't decide what feeling I have towards it.

They're also accepting cat video submissions. Like, that's just another silly marketing thing but it's kinda cute, I guess. That segment feels like it was made in 2012. It's very *America's Funniest Home Videos*-esque. Submit your cat videos if you want. One of the trailer uploads comes with a QR code. Like, it's technically giving them free content, but they could easily get their own cat videos, and someone will probably be very happy to see their cat associated with this and posted by big boy social media accounts.

The movie's apparently animated by "DNEG Animation" which is confusing to google since I can't seem to find a clear list of their actual work (they have vaguely contributed to a lot). Different searches give different answers, including crediting the animation to "Paws, Inc." which is apparently a production company founded by Jim Davis, with the Nickelodeon Group as the parent company.

Also, when trying to find other DNEG Animation movies, I found an image that listed that the Killer Bean movie was animated by this company. However, upon searching for the Killer Bean movie, I was shown the credit given to "Killer Bean Studios," which seems to be basically just Jeff Lew.

I can't quite figure out how much of anything can be attributed to DNEG, but they certainly exist.



Also, I watched the FNAF movie. I dressed as the puppet/marionette, and she was not in the movie (don't give me that Easter egg shit). Tragic. I didn't even go to a theatre, just watched it at a friend's place.

I have started watching FNAF lore videos. I have consumed more FNAF lore video content than I have consumed lecture content for any of my courses this term. (Yes, I feel bad about this.)

I have nothing else to say, really. I cannot explain much to you without using the entire issue. If you care, you can find an 8 hour and 47 minute explanation of the lore and timeline on YouTube.



Speaking of both of these movies and about marketing and consumerism and marketable plushies: did you know pillow pets still exist? And that that you can purchase a Freddy Fazbear pillow pet? And POTENTIALLY a Garfield pillow pet? (There is a dedicated crowd urging them to do so. It is not confirmed. The official pillow pets IG account has previously posted an interest poll so we know they know.)

If they release the Garfield pillow pet, only the Lord knows how much money will escape my wallet once I start making a purchase. They have an Appa one too. I am so weak. My PayPal is [alyssnya@gmail.com](mailto:alyssnya@gmail.com)

I am a victim of consumerism.



alyssnya

## THE GOOSE TEST

The goose is the ultimate litmus test for whether a person is capable of self-governing.

To feed the goose is an easy, convenient task and one which we all recognize as the correct, appropriate thing to do. Feeding the goose is objectively right. There are no situations other than dire emergencies in which a person is not able to feed the goose. Simultaneously, it is not illegal to ignore the goose. Therefore the goose presents itself as the apex example of whether a person will do what is right without being forced to do it. No one will punish you for not feeding the goose, no one will fine you or kill you for not feeding the goose, you gain nothing by feeding the goose. You must feed the goose out of the goodness of your heart. You must feed the goose because it is the right thing to do. Because it is correct.

A person who is unable to do this is no better than an animal, an absolute savage who can only be made to do what is right by threatening them with a law and the force that stands behind it.

The goose is what determines whether a person is a good or bad member of society.

## N PICKUP LINES/JOKES TO TRY ON YOUR FRIENDS AND FAMILY (AND POTENTIAL PARTNERS)

MY CREDITS: I HAVE A PARTNER AND IT WORKED (SHE ALSO TOLD ME HALF OF THEM)

It's the holiday season soon, and some math kids want partners, so this article may be of some help in your partner search quest!

- She induct on my  $n$  'til I base case.
- She recurse on my list 'til I empty.
- Are you an object I'm doing work on? Because I want to transfer energy to you.
- I wish I were the first  $n$  terms of your Taylor polynomial series so I could get close to you.
- I think our Collatz conjecture holds; wherever we start, we end up being one.
- **Your person of interest:** Hey baby, want to be my derivative? That way I can lay tangent to your curves."
- **You, 'cause you're so cool:** "No, I'd rather be your squeeze theorem — that way I could take it to the limit and hit it from both ends. Actually, if I could be a clopen set in your standard topology, then I could be inside of you, outside of you, and on you all at the same time. But what would be optimal is if I could be the Nash embedding of a Lorentzian manifold in your subset Euclidean space such that your kernel with respect to  $R^n$  is a linear transform of mine — that way I could smoothly place myself on your flat areas and extend myself into you."
- Hey, do you work at Subway? No? But you just gave me a foot long.
- Hey, are you made of copper and tellurium? Because you'd look CuTe with me.
- If we were group elements, you'd be my inverse since together we could be one.
- Hey, are you  $as + bt$  when  $a$  and  $b$  are coprime? Because you could be the one for me.
- Why was  $n + 1$  afraid of  $n$ ? Induction.
- Are you a compact set? 'Cause I'd love to get you under my finite covers.
- I wanna simplify  $\sqrt{-u}$  so u and i could be together.
- Are you an inverse function? Cause you make my natural log rise exponentially.

Good luck with your partner search quest (I am not liable for any results)!

cherry ♥

# THE BEST SONGS OF 2023

What a year, huh? Yeah, I know it's only November, but everyone always talks about their favourite songs of the year at the beginning of December, so I thought I would get a bit of a head start. Plus, there's been so much good music released this year that it's hard enough to comb through it as is, and waiting until the end of the year would give me even more to talk about.

It was really hard to narrow down the hundreds of great new songs I've listened to this year to a list short enough for the **mathNEWS** editors to publish, but after lots of deliberation I've come up with a list of five favourites that I think everyone should get a chance to check out.

## 5. "WELCOME TO MY ISLAND" BY CAROLINE POLACHEK

I'm kicking this list off with a song from one of the albums I was most excited for at the start of this year—Caroline Polachek's *Desire, I Want To Turn Into You*. The day it came out, I had it on repeat while I was at work, and this was one of the first songs that really stuck itself into my head. It's a captivating, catchy pop song that makes you feel good about yourself. It technically came out as a single in December of 2022, but that was less than 365 days ago as I write this, so I'm comfortable including it—and I don't think I heard it until I heard the full album anyway.

## 4. "BLOOD AND BUTTER" BY CAROLINE POLACHEK

Okay, it's gonna be pretty hard to not include at least one more song from *Desire, I Want To Turn Into You*. "Blood and Butter" has been a favourite of mine since I started listening to the album, but I recently listened a little closer and heard the line "look at you, all mythicalological and Wikipediated" and that's what really put it on this list. I've never heard anything more romantic in my life.

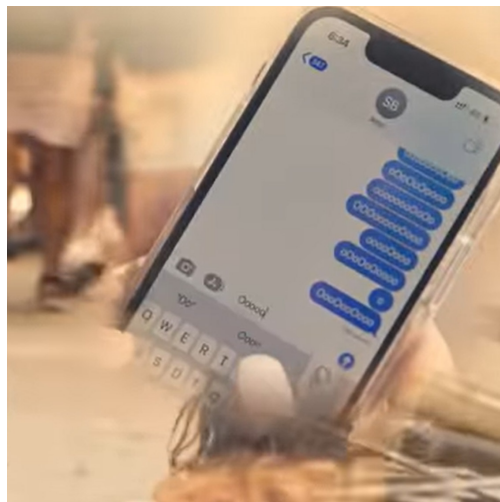
## 3. "PRETTY IN POSSIBLE" BY CAROLINE POLACHEK

Up next is yet another track from Caroline Polachek's highly anticipated second album, *Desire, I Want To Turn Into You*. This one grabs me because of Caroline's incredibly technically impressive vocal performance, from the little a capella riff at the beginning to the oohing bit during the chorus. It's not often that I get this impressed by the actual singing part of a song. I guess my mom's background as a choral conductor is rubbing off on me. Aside from that, it just sounds really good and makes you feel good? I don't know. Definitely the third best song of this year.

## 2. "SUNSET" BY CAROLINE POLACHEK

This song is so good I hardly know where to start with it. The asymmetric meter and plucked guitar fill you with energy from the first moments of the song, like a real sunset, and then Caroline's voice comes in matching the impossible-to-count rhythm perfectly, comparing the listener to the sunset, with lines that flow into each other so you can't tell where

they start and end. I think this also technically came out in 2022, but it was also probably the end of the year and I also don't think I heard it before the album (*Desire, I Want To Turn Into You*) came out, so it's fine. Also, I'm a big fan of this image from the music video:



## 1. "I BELIEVE" BY CAROLINE POLACHEK

"I Believe" feels like the centerpiece of one of my favourite albums of the year: Caroline Polachek's *Desire, I Want To Turn Into You*. Interviews with Caroline Polachek suggest that it was written as a tribute to the late electronic music producer SOPHIE, but I probably could have figured that out by listening to it enough times. Not just because of the recurring allusions to the cause of her accidental death, but because the instrumentation makes the song sound like a lost SOPHIE track, filling the room with emotion in the same way as "It's Okay To Cry", one of my favourite songs of hers. Even if you don't know who SOPHIE is, it's such a beautiful celebration of life and hopefulness that I think you'll still find "I Believe" to be the best song of 2023.

\_\_init\_\_

Honourable mentions: "Bunny is a Rider" by Caroline Polachek (this one came out in 2021 so it definitely doesn't count) and "Sunny Boy" by M83

# TONIGHT!

- evaluatED does a C++ quiz live
- us writers "vote" for the EOT location
- mathgeek crowdsources article content yet again
- and hyperlynx, 0.423 and I finally run out of article ideas

c'mon guys be more exciting during **prodNIGHT** or something

terminal



# ROMANTICIZING REJUVENATION

You're in Toronto on an overcast November morning. You're walking along Bloor Street when you find a cute little bookstore with an open door in three degree weather, and although you take a few steps beyond it, you're inevitably pulled in. Inside, books in tight hallways rest on shelves stretching floor to ceiling without order or organization, the room so tightly packed it threatens to cave in on itself. The clerk, a bearded man who could have been a lumberjack had books not called him first, says to ask if you have any questions, and you don't until you reach the back of the store and find stackable containers in an unreachable corner, floor to ceiling, each filled overflowing with multicoloured Lego bricks. You walk back to the desk, dodging the Lego shelves you didn't see before, rotating around the Lego aisle endcap and its Lego signage to ask the man: what's with all the Lego, hidden among the dusty books but so bright once you've seen it. And as he tells you, you look down.

His desk is made of Lego.



A wise man told me years ago that “if you're bored, you're boring.” I haven't found him to be wrong yet.



You keep walking down Bloor. You're in Koreatown now, but you're not from Korea, and you're not really from a town either, so you're not only out of your element, but you also can't read for shit. But the winter air is clear, and as you take in the sights—the “magic health” stores selling weight loss and laptop repairs beside the corner grocery markets with tomatoes piled under the winter sun—you find a familiar park. You detour in; the relatively small Christie Pits park has only a few softball diamonds and playgrounds, but though it's unremarkable, you've heard the warning of its history every day of your life, every time the Tragically Hip etched the park's race riot of “that night in Toronto” into odious legend. You tread across this birthplace of old hate, years of history underfoot.

You're amazed, because you never meant to be there at all.



One of the best parts about living in Waterloo is that you don't *have* to live in Waterloo. Yes, your bed is here, you generally return here each night, but that's not completely restrictive of what you do in the day. You can start your day in Waterloo, go almost *anywhere* in the GTA for lunch, and return to Waterloo at night without anyone having to know.

Once every few months, I get the feeling I'm not using that ability enough.



You eventually reach High Park, the destination you had been searching for; your task is complete. It's not your first time in a forest, but there's something different about this forest, its colossal trees and untamed valleys, that leaves you intimately aware of its age. You walk along the leafy paths as the trees whisper shadows of days before, of many lives lived under their ancient watch. You journey further into the trees, and on the path before you, a golden lab in a strawberry bowtie guards the path beyond. You lock eyes. She runs away. You follow her, as you do, the trees part to reveal a sandy hill populated only by dogs, running and playing in every direction.

Out of nowhere, a black lab lovingly tries to tackle you to the ground.



I had a free weekend coming up, and not a single plan for it, save for doomscrolling Instagram and aimlessly exploring Starfield until Monday morning rose. It was Remembrance Day weekend, so I'd try to break it up by going to the cenotaph ceremony.

There's a cenotaph in Toronto, right? To get there on time, I'd need to wake up at 6:30 on a Saturday. But I'm not doing anything else, and I can sleep on the train. The ceremony would be done by noon, but High Park is right there; why not explore? If I am to be bored, it will only be because I have rejected the vastness of life for isolated decay. If decay is the alternative, why not choose rejuvenation? If death is the alternative, why not choose *life*?

I buy the GO Transit day pass.



You're not at High Park yet, and after detouring through Christie Pits, you desperately need lunch. You pass many places offering food, but none feel quite right, not quite replenishing of the body and soul, until you find a poorly-marked shawarma restaurant. It offers “East African Cousine.” So you walk in, into a restaurant with a haphazard menu and a single TV stuck to unbranded brown walls, and you order your shawarma wrap from a man who seems confused you that you're in his restaurant at all. You sit down, out of place, unsure where you are, less sure where you should be.

And here you are. You're who knows where along Bloor St, your destination either near ahead or long behind, you cannot tell. You're a lost Waterloo refugee, in the heart of a community that isn't yours, with decorations on the walls in a script you cannot parse, watching a soccer game on the muted TV between teams only you don't recognize in a language only you don't understand. And you know just one thing:

You're not bored. You're more alive than ever.

# BREAKING: IN STUNNING UPSET, SAM OOSTERHOFF BECOMES PRIME MINISTER OF CANADA



October 12<sup>th</sup>, 2025 — Ottawa, ON

While only 45% of results have arrived from across the country, **mathNEWS** is now confident in projecting a result that seemed unthinkable a few short weeks ago — Sam Oosterhoff will be elected the 24<sup>th</sup> Prime Minister of Canada.

Defying all polls, the candidate previously considered a “fringe weirdo” whose “lunatic policy proposals” will “destroy the country completely” has garnered vast swathes of support across all parts of the country. In fact, it seems that every single province has shown majority support for Oosterhoff.

This promotion caps a startling rise for everyone’s favorite current Brock University undergraduate, who only 24 months ago was a mere backbencher Ontario MPP, representing the riding of Niagara West, filling his days by monitoring his wife’s social media usage. This all changed after the collapse of Doug Ford — which, of course, happened in early 2024 when Doug Ford literally collapsed after falling down every stair in the CN Tower.

In the wake of that unexpected tragedy and the political fallout of the discovery of a conveniently-placed banana peel at the scene of the crime, Oosterhoff emerged as the sole Ontario PC politician who was not implicated. This was reportedly due to the co-conspirators considering him to be “too lame to be a murderer”, a charge that Oosterhoff has vehemently denied.

In any case, Oosterhoff, the most home-schooled Education Minister of all time, quickly made his mark as Ontario’s Premier. He wasted no time introducing various signature policies including the “Tax on Jacking Off”, the new “no-talking” rule for the Speaker of the House, making “The Monster Mash” the first provincial anthem, and beginning the process of moving the capital of Ontario to the geographical center- and that was only in his first 10 minutes. Oosterhoff is undoubtedly the most consequential premier in Canadian history.

Although it passed under the radar at the time, in retrospect, perhaps his most consequential policy change was granting the right of citizens of the Netherlands to vote in Canadian elections. Federal politicians such as Interim Green Party Leader Gregor Richards would raise concerns that the Premier of Ontario “actually can’t do that”, but these would be silenced by the passing of the “Give The Premier The Power To Do That” laws of November 2024.

Just when it seemed like he had slowed his radical transformation of the province, it was revealed unto his now loyal, ravenous followers that his ambitions would not stop at the border of Gatineau. Indeed, only a few weeks ago he announced that he was, as he put it, “gunning for the big one” — making a bid for Prime Minister.

He was immediately noted for his bold, energetic campaigning on the trail, a notable contrast to Justin “Old Busted” Trudeau and Pierre “Shove Me In A Locker” Poilievre’s respective efforts. Instead of boring things like “lowering taxes” or “increasing the welfare state”, he promised bold, transformative steps on the issues of the day, including solving the housing crisis by making it illegal to buy homes (thus setting the prices at “vacuously zero”), moving the Rocky Mountains alternatively back and forth a few hundred meters per year, and the annexation of Oregon.

While other leaders’ reactions ranged from “skeptical” to “bewildered” to “I don’t think that guy is old enough to vote, how is he leading the polls”, it seemed as though he struck a chord with the hearty people of this great land. Many responded to his youth, energy, and desire to just “do it and see what happens”, also known as the “fuck it, we ball” method of governance pioneered by Robert F. Kennedy Jr., 46<sup>th</sup> president of the United States. Oosterhoff even got a few media endorsements, including a last-minute endorsement from **mathNEWS** after he announced a proposal to nationalize Marineland.

While much of the media was anticipating a decisive Bloc win nationally, one thing became clear — Sam Oosterhoff was sweeping the nation. Eventually, another thing became clear — Sam Oosterhoff’s party wasn’t sweeping the nation; Sam Oosterhoff *himself* was.

Many readers will already understand that Canada has a Westminster-style parliamentary system of government where the Prime Minister is not directly elected by national vote. Instead, each seat in Parliament represents one riding in the country, and the leader of the party with the most seats becomes Prime Minister. (Usually. See the 1925 election for more details.)

What our readers may not understand is that, according to all laws on the subject I can find, there are technically no rules that say you can’t run as a candidate in more than one

riding—or, for that matter, run for every seat in the country. (*This part isn't a joke. I genuinely think there isn't a rule against this and it's just that no one has tried. If you find any evidence disproving this please let me know, because after a lot of research, I could not.*)

This, of course, is exactly what Oosterhoff did. But, allegedly, it was only the first phase of his Ooster-plan. Critics accuse him of having ulterior motives for allowing the Dutch to vote in Canadian elections—exit polls (which are legal in the Netherlands) show that 100% of Oosterhoff's large network of extended family, friends, and clones voted for him and him alone. With their votes spread across the country evenly, Oosterhoff is anticipated to win a majority of seats personally, meaning he will have the sole individual power over the Canadian government.

The Oosterhoff campaign, when approached for comment, said, “Nah nah, we won!”

It remains to be seen which of Oosterhoff's proposals will be possible to implement. The Parliamentary Budget Office is already raising concerns about the PM-elect's plan to create an entire new province by draining the Great Lakes with “some kind of large vacuum”. But despite everything, in the midst of the turmoil of our new political age, Canadians find themselves reassured by one thought.

It could have been worse. It could have been Bernier.

Dick Smithers

## CUTLET COCKTAIL COLUMN #6

### BRAVING A BAIJIU

Alright, I'll admit it—I'm not even writing about a cocktail this time. Think of this as a special episode of sorts.

So I'm taking CHINA 101R this term, and a few weeks in, my professor taught us the character 酒 (jiǔ, said somewhat like the name “Joe” with a slight falling then rising tone), which means “alcohol”. (I immediately started noticing this character in many public places.) More recently, we learned the character 白 (bái, said like “bye” with a rising tone), which means “white” or “blank” (among other meanings). The professor promptly taught us the word 白酒 (báijiǔ), which translated literally means “white alcohol” or “blank alcohol”, and is the name of a strong, clear Chinese sorghum liquor which in fact outsells all other liquors globally. (According to Wikipedia, in 2018 it outsold whiskey, vodka, gin, rum, and tequila combined.<sup>1</sup>)

That sparked an interest in trying baijiu which I wasn't consciously aware of till last week, when all of a sudden I went down a small rabbithole figuring out what was good and available to try. With the help of my friend UW Unprint, I was able to acquire some from the LCBO, specifically Luzhou Laojiao's Erqu baijiu.<sup>2</sup> True to its name, it's clear, and looks friendly and harmless until you find out it's 52% alcohol by volume.

I will now say that baijiu is widely considered to be an acquired taste, at least in North America. Read the “Image” section of the Wikipedia article on baijiu if you want more details.

With me to try it were UW Unprint, water, and  $\chi$ . We all did one shot together, and this is how it went:

- UW Unprint and  $\chi$  were audibly stunned.  $\chi$  started coughing, and UW Unprint went over to the sink and spat repeatedly.
- water was somewhat perturbed, but handled it pretty well.

- I made the mistake of sipping it. It's a mistake because you're really supposed to take it as a shot. In spite of having less, the flavor was still quite strong. While the others struggled, I kept sipping it, only to find that I wasn't even halfway through, at which point I downed it, and felt like I had been lightly kicked in the stomach.

water and I went for a second shot a while later ( $\chi$  and UW Unprint firmly declined). He took it quite well, while I had to hold my stomach for a minute.

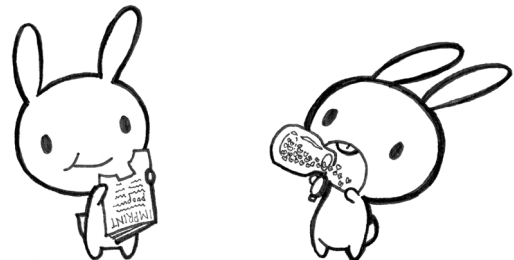
I have half a bottle left. I'm planning to take another shot soon to try it again and see how it is. If it's an acquired taste, I don't think I had acquired it the first time around, but then again, I shouldn't have sipped it. (To be fair, I think the first time I tried Scotch I had trouble with the pungency, and I think it's excellent now, so my thoughts on this may evolve.) Taste aside, I feel reasonably confident that I could handle drinking more of it, if I restrict it to shots only.

I encourage anyone who's interested in baijiu (and of drinking age!) to try it. If you do, please let me know how it goes for you. Good luck.

cutlet

1. [https://en.wikipedia.org/wiki/Baijiu#Global\\_baijiu\\_market](https://en.wikipedia.org/wiki/Baijiu#Global_baijiu_market)

2. <https://www.lcbo.com/en/luzhou-laojiao-erqu-318337>



# MONASTICISM, PROSTITUTION, ASTROPHYSICS, AND BRAIN CANCER

## INTRIGUING CONVERSATIONS IN PUBLIC SPACES

Usually, random people on plane rides are not open to conversation. But sometimes they are, and I've collected here the four most notable things I remember from my favourite conversations with strangers.

### MONASTICISM

I sat for four hours beside a real Vedic Monk from India. He flies twice a year, to do tree planting in Canada for a month for money, and then returns—he's been doing this for 14 years. Our conversation was exceptional, and I genuinely learned so much about life, but it was interesting to notice an undertone of his life being focused too much on studying wisdom and not enough acting it out. Life is like that sometimes, I guess.

A year later, I only remember one concrete thing from this Monk, something he must've repeated fifty times. I think about it often, so I'll share it here, for you to contemplate too. "Behind every emotional issue hides an unsolved technical problem."

### PROSTITUTION

This was a unique one. The young lady beside me shared that she was doing a PhD early on. But it was at least an hour before I learned what she was studying: prostitution. Turns out, she's currently the only person in the world studying Canadian prostitution, and my goodness, was there a lot to uncover. I've never been into history, but she genuinely changed my mind on that. I was captivated for a solid 3 hours. Heck, the reason she was flying was to see if she could negotiate in-person to access heavily guarded police records in Kingston that she'd been trying to get permission for for years.

So, I discovered that history can be cool, but it was something more personal that I remember the most. We were talking about the strictness of conservative families, and I shared that my parents had used the argument of an infinite hell to keep me in line. Her response? "What the hell happened to being a good person for the sake of it?"

### ASTROPHYSICS

On route to San Francisco, I happened to be sitting beside a guy coming to attend a UAP (UFO) convention. He had a PhD in Astrophysics, and it only took a few minutes for us to get deep into a conversation that eventually weaved through politics, religion, education, and even personal life. He had a lot of pet theories.

He had a lot of unique pet theories. After I forgot most of them, I noticed one seemed to stand the test of time. He argued that it takes strong pain tolerance to be smart. Changing one's mind requires both breaking emotional ties to your previous opinions, and breaking physical ties

between neurons. Succinctly, "Intelligence is a measure of pain tolerance."

### BRAIN CANCER

On one flight, to my right was a sweet old lady, with deep smile lines. I soon learned this was her first flight in a decade, and she had recently had her second open brain surgery—almost all of her left brain was gone. This was noticeable in her speech: it was disjointed and sporadic, and usually didn't make sense if you used any context beyond the nearby words. Despite this, or maybe because of it, our 3 hour flight was one of the most genuine exchanges I've ever had. My face was sore from smiling when we landed. Her kindness was so honest and infectious.

As we parted, she left me with something I think everyone should hear from an old lady in a blue blouse at least once in their life, "You're gonna have a great life! Keep being a good person, and things will work out."

no pun indented

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UW'S BASTION OF ERUDITE THOUGHT SINCE 1973

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# N OBSERVATIONS FROM BROWSING THE CANADA'S WORST DRIVER WIKIPEDIA PAGE

A few weeks ago, I found myself discussing *Waiting Room Television™*. The kind of shows that one would really only see in the doctor's office before an appointment, but never on your TV at home. Staples of the doctors, orthodontists, dentists, orthopedics, and bloodworkists offices of my life have included shows like *Carnival Eats*, *Beachfront Bargain Hunt*, *Love It Or List It*, *Love It Or List It (Vancouver)*, *Border Security: Canada's Front Line*, and *Undercover Boss*.

Then all of a sudden, before I knew it, we were watching an episode of Season 1 of *Canada's Worst Driver*.<sup>1</sup> For those unfamiliar, this show recruits 8 drivers each season who have been nominated by a friend as a bad driver who needs rehabilitation (with a lot of black-and-white imagery to drive this point home). These drivers then go through an obstacle course each week, with the best driver being "graduated" by judges, who have questionable qualifications at times. The "winner" of each season is "Canada's Worst Driver": the poor person who is unable to graduate (I'm not exactly sure what you're supposed to do once you have this honour). Upon our completion of this somewhat entertaining, but generally unremarkable episode, I did what I usually do when I am thinking about a piece of media: I went to its Wikipedia page. I wasn't prepared for what awaited me:

- The Wikipedia pages for each season are ridiculously long, requiring extensive effort to read. Extensive summaries are provided for every contestant and episode of every season. There is even a complete list and description of every challenge completed in the 115 episodes of the show. For example, the page that summarizes Season 8 is ~10,000 words long, whereas the summary of Season 7 of *Friends* only has ~4,800 words. This is despite the *Friends* page having 48 references, compared to *Canada's Worst Driver's* zero.
- This lack of references (almost zero for every article) is especially clear when the tone of each article starts sounding like it is your uncle reciting the plot to you at Tim Hortons (probably just like the people who wrote it).
- It is also clear when the articles start making very personal and/or unsubstantiated claims about the show, such as when the Season 4 page claims that the driver's ED course took place in the Guelph Reformatory Prison, which closed in 2002 for "being too harsh". I could not find any information online to corroborate any inhumane cruelty happening to any prisoners (beyond the general concept of prisons).
- "Unlike other *Worst Driver* series around the world, the Canadian version emphasizes the learning process of the contestants and the science of driving and, as such, is often more serious than the other *Worst Driver* shows, which are mainly played for laughs." (This was uncited.) This rings very true

when they throw the poor drivers on a frozen lake or make them do doughnuts in a parking lot, which really emphasizes learning.

- Unlike other *Worst Driver* series, *Canada's Worst Driver* is also notable for only giving the titular *Canada's Worst Driver* a commemorative trophy for "winning", whereas in other countries they are either given a new car or have their car destroyed.
- The host's name is "Andrew Younghusband", which is not a real name. He also seems to have an exceptionally long Wikipedia page, considering *Canada's Worst Driver* seems to be his biggest credit, and his biggest celebrity connection seems to be "rubbing elbows" with CBC celebrities Rick Mercer and Cathy Jones in 1990s Newfoundland (uncited).
- This uncited Wikipedia page did a surprisingly good job at describing many of the characters of "Canada's Worst Drivers" with detail that I guess should be expected with 10,000 words (whether actually true or not).
- Madalena Phillips, who called her 30 previous accidents "bumps" and had her parents pay her \$9,000 (in 2004!) car insurance. She was kicked off the show without graduating for partying too hard before training days, and was gifted a BMW at the conclusion of the show by her parents.
- Donna Hicks, who "refuses to stop at stop signs or red lights", and "...simple driving tasks, such as reversing, seem to elude her. She even sometimes drinks and drives, which she claims happens, 'only when I play Bingo.'" She is given an "Anti-Graduation", where the judges say that she is the worst driver they have ever seen, and that she faked her medical records, leading to the show asking the Ontario Government to revoke her licence.
- Scott Schurink, who revealed to the producers of the show that he has owned over 60 cars, drove drunk, committed hit and runs, and has been driving with a suspended licence for years. His nominator is so annoyed at his behavior that he pulls his insurance coverage for his friend, leading to Scott being immediately expelled from the show. He is known for the quote, "I'm a good drunk driver."
- Seasons 7–14 all took place at the Dunnville Airport.<sup>2</sup>

Lars Nootbaar

1. All the episodes seem to be available for free on YouTube here ([https://www.youtube.com/watch?v=cngpE1impZg&list=PLHB4WuM7Y\\_eP-PFv5F6ToaafqEziG-5cb&index=1&ab\\_channel=TheDropSquad64](https://www.youtube.com/watch?v=cngpE1impZg&list=PLHB4WuM7Y_eP-PFv5F6ToaafqEziG-5cb&index=1&ab_channel=TheDropSquad64)), with a dedicated base commenting on many of the posted episodes.
2. As referenced in my article *Muddy, the Mudcat* in **mathNEWS** 152.1.

# profQUOTES

## MATH 135: NICO SPRONK

- “ My throat infection seems to now be a brain infection.
- “ Just because you can write something doesn't mean it's sensible... trust me, I've seen a lot of bad mathematics papers.
- “ People who've heard of [Fermat's Last Theorem] are math groupies and people who haven't heard of it are like “you're all nerds, fuck off.”

## CS 350: KEVIN LANCTOT

- “ Raise your hand if you have a 10,000-core laptop.

## ECE 105: MATTHEW ROBBINS

- “ Thanks for your help. I hope your hands aren't in too much pain.
- “ I haven't been injured anyone yet, but there's still time!
- “ I did have a demo. Sadly, that demo causes concussions.

## MATH 145: JASON BELL

- “ I'm not claiming this is the reason the Roman Empire fell, but this is a really bad encryption scheme.
- “ I think I'm addicted to Discord.
- “ I hypnotise you so you see a regular hexagon!
- “ That's sounds pretty pidgeonholey. OK, I'm never saying that again.
- “ If bees didn't exist, I'd be a good football player.
- “ Since we've done it by hand, let's now do it by foot.
- “ That's just simple pigeon math.
- “ If we were in MATH 137, they would have taken a mark off for not writing  $+C$ .
- “ It's fun to teach when you guys have fun. Sometimes I teach engineers and, no offense to engineers, but their hearts just aren't in it.
- “ I need a break. Any questions? [*silence*] Alright! My break's over!

## MATH 145: JERRY WANG

- “ I have 10 minutes left. That's the perfect time to start a new unit.

- “ I am a homomorphism.

## MATH 115: RUIKUN ZHOU

- “ I hope you enjoy your Halloween... if you have time.
- “ Happy Wednesday. Today is not a happy lecture.

## CS 135: ZAHRA AHMED

- “ Until now, we've only worked with binary trees, but now we can look at trees with more than two children. The two-child policy is over.
- “ Welcome back, hope you had a nice reading week. It's all downhill from here!

## CS 145: GORDON CORMACK

- “ If you made an algorithm for Assignment 3 before you cheated and looked up the formula, you would know it involves exponential algorithms.
- “ If someone says bubble sort is useful, don't talk to them anymore.

## MATH 117: ELANA KALASHNIKOV

- “ When is the denominator equal to 0? Never... unless you're in complex numbers, which you should not be.
- “ We'll try not to give you an impossible one on the exam.
- “ No matter how hard you work, it's not gonna work.
- “ If you don't know how to integrate this or you're not paying attention; that's fine.

## ECON 101: MIKAL SKUTERUD

- “ We should all be smoking crack all the time, the short-term economic surplus is huge!
- “ England sucks. They're not good at anything.

## CS 137: VICTORIA SAKHNINI

- “ This program has no meaningful purpose, don't ask me about it.
- “ We know that real life is always bullshit.
- “ Always kill the children before you kill the parents, otherwise they will get lost and there will be nobody to take care of them.
- “ Where is the guy who always records my lectures?

“ Just listen for one more minute for god’s sake.

**PMATH 453: BLAKE MADILL**

“ We say a space is *healthy* if it admits at least one hobby.

**SE 101: PAUL WARD**

“ It’s only software engineering if it kills people, otherwise it’s just sparkling computer science.

“ It could be a passenger plane... but to be fair it’s a war zone here. Please don’t fly me over a war zone.

“ If Prince Charles never dies, we don’t need a Prince William.

“ I don’t know how the hell I got here, I’m going to shoot myself in the head and start over again.

“ Pictures that my kids drew are semantic garbage.

“ It’s important to get drunk.

“ I need to be drunk.

**ACTSC 231: KEITH FREELAND**

“ If the average is too high, I do not plan on curving it down. Similarly if it is too low.

**MATH 249: DAVID WAGNER**

“ Clever of Euler to notice this, but in the early 17<sup>th</sup> century they didn’t have Netflix, so there was nothing better to do.

“ Exams are like bears: you don’t have to be faster than the bear, you just have to be faster than your friends.

**CS 246E: BRAD LUSHMAN**

“ Ponds don’t own ducks; they are friends, which is the highest level of coupling.

“ If you happen to know any carpenters, tell them they should be working with abstract saws.

“ I have asserted my bossdom over the compiler.

“ How many of you have done something without telling your parents? [*Everyone raises their hand*] That’s why you should never trust your kids.

“ Now, you might have textbooks about Batman—or, even better, Comic books about C++.

“ It literally takes half of the workday to type “`static_cast`”.

“ [*On the topic of if squares are rectangles*] We’re in an engineering building, so I don’t know if they care or not.

**STAT 231: MICHAEL WALLACE**

“ The gamma function is a complicated friend, but a friend nevertheless.

“ I think a lot about the criminal justice system of Dora the Explorer. It gets quite complicated when you get into the nuts and bolts of it.

“ Let’s suppose that I’m innocent of robbing a bank... Uhhh, I say “let’s suppose.” I AM INNOCENT OF ROBBING A BANK! Let’s be clear about this...

“ Now, let’s suppose that the professor sets a 1,000-question quiz. That’s not foreshadowing for the final, by the way.

**STAT 240: YINGLI QIN**

“ Do you think eating ice cream makes you more violent?

“ Your net winning is negative. This is why the casino exists.

**CO 255: LEVENT TUNCEL**

“ What is this “degeneracy” business? It’s actually something we are familiar with from other places.

**CO 442: PETER NELSON**

“ We’re starting with degeneracy.

**CO 450: WILLIAM COOK**

“ These Canadians are very tough. In the winter I don’t go out. I spent the whole winter on this.

“ These days, I think you’re a good coder if you’re good at taking interviews... Bell Labs found that what best correlates with a good coder is being able to type fast.

“ I trust the Ontario government to pay me every month... Actually, I’m old enough that I don’t trust them anymore.

“ I tried to learn Japanese and they say that word a whole lot. “Let’s go.” Except it’s their own word for it. “Ikimashou.”

**CO 456: MARTIN PEI**

“ The pure mathematicians are going to kill me, but that’s OK.

“ Does that make sense? I see one nodding head. If we can get two nodding heads then, by induction, everyone understands.

**CO 485: DAVID JAO**

“ Real mathematicians, instead of writing papers, post on Math Stack Exchange.

**CS 341: TREVOR BROWN**

- “ So they chose  $n$  and  $m$ , which feels kind of sadistic towards non-native English speakers who need to say “ $n$ ” and “ $m$ ” and hear the difference between “ $n$ ” and “ $m$ ”.
- “ At midnight, I often find myself typing the four letters “FOOD” into Google Maps.

**CS 343: PETER BUHR**

- “ The bathroom is usually not a spectator sport.

**CS 350: KEVIN LANCTOT**

- “ You can go to YouTube and search “laptop on fire” to find videos of laptops on fire.
- “ The answer to “who does \_\_\_” in this course is always “the kernel”, except for “who does the assignments.” That’s for the students.
- “ Before I talk about the midterm result details, please remove any sharp objects from your desk.

**CS 484: YURI BOYKOV**

- “ What’s the point of this representation? Well, first of all, it’s kind of cute.
- “ The algorithm is extremely simple. And that’s why I teach it. I teach only simple things, ok?
- “ Do you really want to wait for a week, two weeks for this to converge? Eh, maybe not.

**MATH 135: SHANE BAUMAN**

- “ It’s so easy that someone from Western could prove it.
- “ When your parents ask you what you learnt in class today, tell them you learned that  $2 + 2 = 0$ .

**CS 341: RAFAEL OLIVEIRA**

- “ Once the zombie goes and eats your brain, we add you to the tree of dead people.
- “ Pardon my drawing skills; you can clearly see that I failed kindergarten.
- “ Now, you might be a commie or you might be a freedom fighter. If you’re a commie... remember, what do freedom fighters do? They bomb places.
- “ I hope you like this problem, whether or not you like to bomb people.

# CAN I, A CASUAL CELESTE PLAYER, BEAT THE ENTIRETY OF FAREWELL BEFORE PRODUCTION NIGHT LEAVES TO EAT PIZZA?

Start: 0:00  
 Remembered: 15:38  
 Event Horizon: 27:13  
 Determination: 43:50  
 Stubbornness: 1:18:06  
 Reconciliation: 1:31:54  
 Farewell: 1:47:30  
 Finish: 1:51:40

Evidently, the answer is yes (they haven’t even left to go on pizza quest yet!)

hyperlynx

## EVERY MATRIX CAN BE UPPER-TRIANGULARIZED

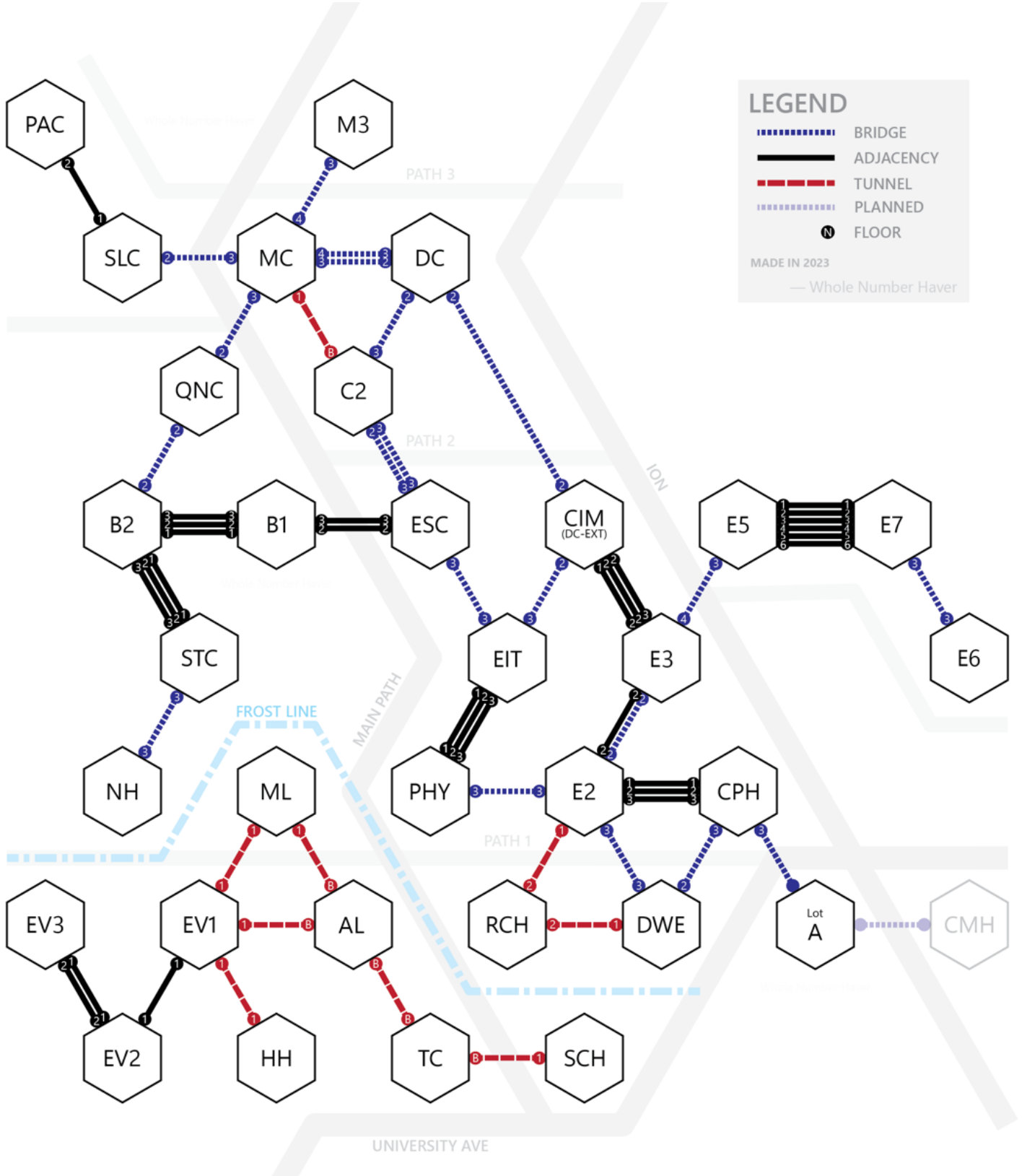


Every Matrix Can Be Upper-Triangularized



# AN UNDIRECTED MULTI-WEIGHTED CYCLIC MULTIGRAPH OF PUBLICLY ACCESSIBLE SKYBRIDGES AND TUNNELS

IF I CAN EVEN CALL THIS THAT



# GAMER LUNCH

What's up gamers, and welcome to my YouTube channel—I mean **mathNEWS** article.

Now, I am not a gamer (unless you count Solitaire) but I bring to you a true Gamer™ experience. I have recently been introduced to something that I have dubbed, “Gamer Lunch.” This discovery was not made in the basement playing on an Xbox—rather, it was made at lunchtime in a work truck at a remote mine.

Take a moment to imagine what a Gamer Lunch is. What fuels the body and keeps you at top gaming performance? Picture it in your head. What does it do to your body? Try to taste it. Good? Great!

No... it is not Mountain Dew and Doritos. My version of Gamer Lunch is clean and compact. It's shelf stable and portable. A good Gamer Lunch needs to be simple. It consists of two ingredients:

- Monster Energy Drink
- Beef Jerky

Amazing. Simple. It has it *all*. Energy AND protein. No mess. Portable and easy to eat. **HOWEVER...**

Should you?

**NO.**

Better question: What is the BEST combo? Now that we are all familiar with the formula of a gamer lunch, let's put some pairings to the test.

For this taste test I got the help of my fellow Earth Scientists. An assortment of heavy users of energy drinks, free food appreciators, and lovers of fun.

## THE CLASSIC

- Original Monster with Zero Sugar
- Jack Links Original Beef Jerky

“Too salty and too sweet at the same time. 2/10”

GRAD 2

“I don't like jerky. Monster tastes nostalgic but also like pee.”

GRAD 1

## THE “ELEVATED” CLASSIC

- *Monster Ultra Paradise Zero Sugar*
- *Noble Jerky Vegan jerky Original Flavour*

“Vegan Jerky not it, 3/10. Green Jolly Rancher chic.”

GRAD 1

“Why is it fluorescent green? It looks radioactive. This is what they used to make the Joker.”

UNDERGRAD 2

## THE WORST

- Monster Energy ASSAULT
- Jack Links Jalapeno Beef Jerky

“Tastes like generic Monster Energy flavour.”

UNDERGRAD 2

“What does it mean on the can when it says ‘battle tested?’”

GRAD 2

## THE REST OF WHAT I PURCHASED AKA “THE REST”

- Monster Energy Khaotic
- McSweeny Original Beef Jerky

“Orange Fanta yassified.”

GRAD 1

“Do NOT mix together in one bite. There is a reason why people don't mix beef flavours with tropical ones.”

UNDERGRAD 2

## OTHER SELECTED QUOTES FROM TASTE TESTERS

“After 4 cups of Monster, I do not feel like I can form coherent thoughts. No need to blink. Cleansed pallet with coffee.”

GRAD 1 COMMENTING ON THE... TASTE

“Drinking Monster always seems like it is assaulting you.”

UNDERGRAD 2 ON THE GENERAL VIBE

“Too salty and too sweet. Too far on each side. Doesn't balance well and my mouth hates it.”

UNDERGRAD 1 ON THEIR REFINED PALATE

“Assault is perfect for doing field work. It will blend right in. Just don't drop it, because you will never find it again.”

GRAD 3 ON THE TOP TIER GRAPHIC DESIGN

“By 20 minutes post-lunch, I’m expecting to hear colours. The saltiness of the jerky has left me parched to the point of no return. Overall, this has been a roller coaster of an experience, but I feel as though I will remember this for the rest of time. Everyone NEEDS gamer lunch.”

UNDERGRAD 1 ON THE OVERALL EXPERIENCE

“Eating Jack Links Original Beef Jerky has made me feel like I was in rural Pennsylvania, sharing a bite with a Sasquatch. My testosterone increased instantaneously, and I now believe I have the ability to bench 250 pounds. I would highly recommend this if you are a 25 year-old settler from the 1860s, or if you are interested in becoming the alpha in the room.”

GRAD 4 ON THE EFFECTS

“This is what Boy Lunch is.”

GRAD 1 ON BETTER NAMES

Overall rankings seemed to favour Jack Links Original Beef Jerky and Monster Energy Assault. I don’t know what to do with this info, other than to share it with you. **Don’t do this.** (But if you do, please email your pairings and thoughts to [rockfactswowie@gmail.com](mailto:rockfactswowie@gmail.com).)

I spent the next hour being decently productive, then nauseous and horribly distracted for the rest of the afternoon. The general feeling of wrongness kept me from doing anything for hours.

I feel like I poisoned myself. [Editor’s note: Thank you for your sacrifice. Science will remember it forevermore.]

rockfacts

## IF YOU CHOOSE AN ANSWER TO THIS QUESTION AT RANDOM, WHAT ARE THE CHANCES THAT YOU WILL CHOOSE CORRECTLY?

- A. 25%
- B.  $\frac{2}{3}$
- C.  $\frac{1}{4}$
- D. 50%

## N THINGS TO TRY COMBINING WITH MILK

- Honey
- Cinnamon
- Hot chocolate powder
- Flavoured syrups
- Lemon juice
- Lime juice
- Lime
- Lye water
- Nutmeg
- Anise
- Tea
- Vinegar (any kind)
- Flour, baking soda, salt, sugar, and eggs
- Baking soda
- Colostrum
- Assorted frozen fruits
- Pepsi [Editor’s note: yes]
- Sprite
- Other soda
- Water
- Ice
- Spit
- BBQ sauce
- Ketchup
- Mustard
- Mayo
- Hollandaise sauce
- Oats
- Soy
- Almonds
- Acorns
- Nuts, these
- Blended banana peels
- Cereal
- Peanut butter
- Jam
- mathNEWS editors’ dignity
- Cum
- Pee!
- Santa
- Fanta
- Sugar
- Cream
- Condensed milk
- Powdered milk
- Hot sauce
- HCl
- Chicken stock
- MSG
- Sulfuric acid
- Nothing, milk is amazing on its own

# THE SPACE BETWEEN

## IT WAS THE WORST OF BEST, IT WAS THE TIMES OF TIMES

It was the space between morning and evening, and it was raining. You longed for snow. But there was none. The dusk had been coming sooner and sooner as of late, and a deep crevice within the base of your chest was slowly forming. You knew that soon the seasonal depression would begin its mighty storm. It was only a matter of time.

You knew it was time for an inciting moment to happen, so that you could go on some random life changing journey, like the *eat pray love* lady. Finally deciding to roll off the couch littering the floor with crumbs, you watch the sun make its final decent behind the imposing, yet daunting building of our darling DANA PORTER library.

Stepping outside, the crisp autumn air greets your lungs and nostrils and esophagus. So too does the suffocating darkness. It seems that in the time it took you to get from the couch to the door, the “space between morning and evening” became *night*. Funny, how quickly the time passes. You take a look at the analog watch on your wrist to try and figure out the time. You audibly gasp as you realize the minute and hour hand are missing. You look up at the clouds and realize you can no longer see the moon that was slipping out. Does time even exist? You look up and down the street, and the streetlamps are going out, one by one. You try and run back to the front door, but suddenly everything goes black.

“Y/n,” you hear in the dark, as one streetlight comes on, right across the road from where you stand. And that’s when you see it. His luscious, dark silhouette gleams as he moves into the light. A small, short man waddles toward you, his webbed feet making little squishy noises with each step. You notice a little golden bowtie at the base of his neck. He’s clearly dressed to impress. He’s clearly dressed to impress you.

You are confused by the tension; what does it mean? You are left speechless, for the first time in your life. It’s kind of impressive, actually, as you are known for never being able to shut up. Here you are, in your red and black plaid onesie, *not at all* dressed to impress, instead dressed for *distress*. You try and move backward, but he takes a step forward.

“Y/n, don’t try and run away. I’m just trying to help you!”

The words send more fear down your spine, and you break into a sprint down the street. You can’t go back in the house, then he would know where you live! Well, obviously he knows where you live already, that’s where you just came from, but either way you can’t go back there now. But then where?

You realize there is only one way forward. Time to yeet yourself into the tunnels. “SECRET TUNNEL,” you begin to sing loudly, as you start to run towards the secret tunnel in the imposing yet daunting building of our darling DANA PORTER library. You enter the building, and nobody looks up. You’re panting and running toward the bank of elevators, planning to go to the first floor, as the doors open, and the automatic

doors open to reveal the small short man with his pearly white skin that is morphing into feathers and a beak right in front of your eyes. You let out a little shriek, and nobody looks up. You remember it’s finals season.

You hear the bongo run sound effect from *Scooby-Doo: Where Are You!* (1969) as the rubber soles of your shoes skid across the floor before picking up traction again. You dart to the right, towards the stairs, but an army of janitorial staff are all mopping this one staircase at the same time. There are two people on each step, at either end, and they’re passing the mop back and forth to clean the floor. *An obstacle course.*

You regret your choice of onesie. You realize the only way to beat the janitors is to change the game as it is. You turn and yeet down the staircase towards the DANA PORTER library’s Special Collections and Archives, where you know you will find exactly what you need. You see it through the glass casing when you reach the bottom floor, the curling rock from one of the Olympic games. You yeet back to the janitors in the staircase and yeet the curling rock in front of one of their mops, now you watch it slide back and forth. You jump onto it and hold on for dear life until you reach your desired destination. Suddenly, you’re travelling. You’re moving at the speed of light as the curling rock turns into the Monolith, as *Sprach Zarathustra* (1896) rings in your ears.

The entire landscape around you has changed. Elevators have been replaced by a barren climate, and the custodial staff are now chimpanzees. You seem to have travelled across the timespace continuum, and maybe even past the fourth wall. But to your great relief, you see that you have not been followed. You see the entrance to the SECRET TUNNEL glisten in the strange light of this strange sun. You have finally made it. You have outrun Mr. Goose. You now eat (beside the Monolith), pray (to the Monolith), and (make) love (with the Monolith), every single day. THE END.

Your mOOOm

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## GAMER LUNCH POSTSCRIPT

I really appreciate the Monster Energy brand for their commitment to the bit. Truly, there is not a single blank space on their cans. You know what you are getting into when you purchase one. It goes beyond cringe and, if anything, it is Camp. Each can of Monster has a short paragraph on it that describes the vibe and flavour of the drink. These are hilarious, and I highly recommend you take time to read one the next time you want to “Unleash the Beast.”

rockfacts

# OBJECTS FROM THE mathNEWS OFFICE

## II: THE VALUABLE REMNANT

Hello again—here I am, again, on the page in front of you, to share with you the ancient secrets held in the mathNEWS office. This time: **The Valuable Remnant**.

### THE VALUABLE REMNANT

Resting on top of a shelf—just a few feet away from the **BLACK BOX**, actually—is a thick slab of particle board with a deep black coat of paint on top and bottom, made a few shades brighter by a thick layer of dust. The paint has some shine, untouched for years; for those who frequent MC, this shade of black would be familiar. The unpainted sides of the slab expose rough layers of wood chips and fibre. If you were to hold it, the slab would carry weight. On top, an article from mathNEWS 40.2 (January 17, 1986) is fixed to it: *Valuable Remnant Recovered*.

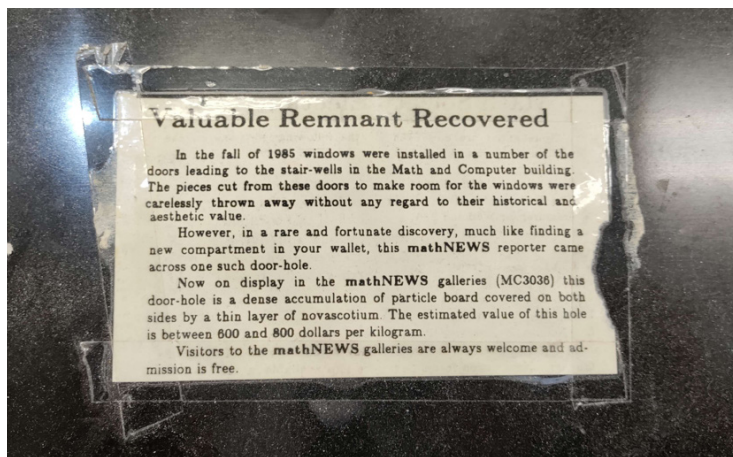


FIG 1: THE VALUABLE REMNANT

That's right: it's a piece of door. Like, the ones in the stairwells of MC. A piece cut out for a window. Some time in the mid-eighties, then-mathNEWS editor Dan Schnabel took the liberty to liberate this humble door piece as it was about to be thrown away. Thank goodness for that.

Back then, those big black doors did not have windows cut into them, and apparently people could get hurt when someone going in got clobbered by someone going out. I happened to be there when a crew came to cut windows into those doors and I saved one of the cut-out slabs for posterity in the mathNEWS office. It looked like the monolith in 2001: A Space Odyssey, and I envisioned it being similarly revered.

DAN SCHNABEL, editor *THOUGHTS* 151.2, mathNEWS 151.2

Anyway, with M4 on the horizon and all, donations of structural fragments from DC, whole or partial, may be made to the mathNEWS office in MC 3030 for their exhibit.



FIG 2: SET AND COMPLEMENT

### THE RED REMNANT

Huh? You thought that was it? How foolish of you. The mathNEWS office is *full* of torn-out pieces of buildings. As a bonus feature to the Valuable Remnant, here's another special remnant held in the mathNEWS office:



FIG 3: THE OTHER REMNANT

Donning a scuffed but still bright red coat of paint (the photo is greyscale but trust me), this plank of wood was less cleanly removed from the Red Room in 1999 as it was being demolished. The Red Room used to sit at the center of MC, spanning the first and second floors. It was once home to one of the largest supercomputers in the world, but was eventually replaced by a bunch of new classrooms. Lucky we got a piece of it.

Well, that's all for now. Watch out for next issue—I'll be yet again sneaking my way around mathNEWS' heavily fortified defenses to show you some rare, one-of-a-kind samples from *the archives*. Or if they catch me then maybe something else.

# THINGS TO DO TO FEEL LIKE YOU'RE DOING SOMETHING IN A TIME OF CRISIS

Things suck in the world right now. This is not an article to tell you what to believe, or even to tell you what's going on. This is an article for people who have seen what's going on and want to do something.

Go to protests? Do the people you're protesting to listen? Of course, it doesn't hurt to go when you can, but what else can you do? Donate money? Well, I don't know about you, but I'm a broke college student. I contribute to mutual aid here and there, but there's only so much I can do. And what to you do to help a situation where there is a barrier in converting money to actually useful resources for the people there? Put up posters? The people who care already know, and the people who don't care won't change their mind because of a few posters. And don't even get me started on arguing with people online (or even in-person). I know it feels good to scream your anger into the void and have it scream back at you, but more antagonism is only going to make things worse.

Anyway, here are some things that may not help much more, but they are alternative methods of dooming.

## EDUCATE YOURSELF

Yeah, I know. Lame suggestion. It's hard to convince yourself to study even more about the topic, when every day you encounter people who don't know shit about it posting and arguing with you, but there is always more to learn. You don't have to learn directly about the issue itself either. Rather than just learning about the history of the conflict, learn those who fought in the past, their tactics, their pitfalls. The most effective activism comes from not only knowing what you're fighting for, but how to fight, how they have fought in the past. Learn about how those in the centre of the crisis are fighting now, even if their methods are not immediately applicable to you.

More importantly, learn how the crisis on the other side of the world is connected to a crisis here at home. Pick one, find the connections, *make* them if you can't find them. Understand one through the lens of the other. Build solidarity, help others make those connections. Obviously, don't co-opt one movement for the other, but movements are stronger when they support each other, understand each other. Care about more than one thing, it will make you better at caring about the thing you started with.

## LEARN THE LANGUAGE OF THE CRISIS ZONE

Why doomscroll Twitter, when you can doomscroll Duolingo? I am not going to say that a few weeks of learning a language from scratch is going to help you gain a better understanding of the situation, but at least you are gaining knowledge. And do not be afraid to learn the language of the "opposing side". Just given the fact that most human rights crises are between a government and its people, or two groups in close

geographical proximity, chances are the "sides" speak the same language or closely related languages. Languages themselves are morally neutral—yes, even when it is partially constructed for political purposes, and even when it is regulated and largely shaped by political institutions. Maybe it's just me being a linguistics nerd on main, but I think learning about a language, not necessarily enough to speak it, but just uncovering the mechanics of it, is so interesting. But mainly, it is an intellectual pursuit that is related enough to the issue but keeps you from spiralling about the issue itself.

## FOOD!

Try the food of the people you stand in solidarity with! Appreciate their culture, learn about it, learn to make it yourself or support their businesses in diaspora. I know that people who have thrown themselves into activism and worry can sometimes not eat well, and anxiety will affect how you absorb nutrients from your food. Food means so much more than its nutritional value, and anyone who tries to tell you otherwise is part of the capitalist death trap and probably wants to sell you something. Anyway, I can feel myself getting off topic, so maybe it's a good point to end the article...

## CONCLUSION

This article has been very vague, but I'm sure most readers can tell what recent events inspired this. I am not publicly taking sides, both because I don't wanna get flames, and because I think this is valuable to share with even those I disagree with. It is also not only inspired by one crisis. Our world is really just one crisis after another these days, and everyone chooses which ones and how many to care about. From someone who has unfortunately given too much of a shit about politics for my own good since I was in grade 8, here's a little bit of advice and a lot of love. You're doing great.

RapidEyeMovement

P.S. Add me on Duolingo pls. :)

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## UWSA CRAFT SALE

Find chocolates, plushies, jewelry, knitting, plants, pots, and more! 10% of all proceeds from the sale are donated to UWSA's student awards.

**Where:** Davis Centre (DC) Fishbowl

**When:** Thursday, November 23, from 9:30 AM to 5:30 PM, and Friday, November 24, from 9:00 AM to 3:00 PM.

UW Staff Association

## AN ARTICLE

“I was thinking what should I write for **mathNEWS** this time around but I could not think of anything. I had no ideas saved and every time I tried to think what I could write, all I could think of is the CS 246E midterm the next evening. But then the idea came to me. Why not write a meta-article explaining my situation. The article is over. I have written everything I planned to write when I planned this. But now that I’m writing this and we’ve already gone meta, why not just keep going?”

—That is what I thought when sitting in the production night and writing an article but then I remembered about the midterm I have the next day and evaluated how prepared I was and decided not to continue.”

—That is what I thought right before adding two more paragraphs explaining the situation, thus contradicting something I said. I don’t know. This is getting too meta and I need to go back to studying.

0.423

## APPLYING PATTERNS INCORRECTLY

Recently, there’s been something I enjoy doing often enough. I take patterns found in one part of English, and apply it “incorrectly” to other parts of English, just because it’s funny.

Spending enough time on the internet, you encounter some of these already. Of course, there’s the classic “one moose, two meese”, but you can do a whole bunch of those such as:

- one shoop, two sheep
- one boob, two beeb
- one boop, two beep

If you want the linguistics of this, I’m pretty sure there’s like some Half as Interesting video on YouTube that is on this exact topic. But, now, I’m going to take things a little further.

In fact, this one is my favourite one to do. Normally, the verb “squeeze” just has past tense and participle of “squeezed”, but taking the pattern from “freeze, froze, frozen”, I find that it’s much funnier to say “squeeze, squoze, squozen” instead. At the very least, I know it makes my friends smile whenever I say it as they squeeze me in a hug.

*\*gets hugged\** “I’m being squozen!” :3

boldblazer

## SOME ADVICE TO NO ONE IN PARTICULAR

If you don’t know what to write, instead of writing about fucking nothing, try *thinking about what you should write about!* That way, your article will actually be about something!

nazz

## IF I NEVER SEE YOU AGAIN

if I never see you again, the world would end, but I would be okay.

if I ever see you again, I would be okay, but the world would end.

blind

## A MESSAGE REGARDING “SOME ADVICE TO NO ONE IN PARTICULAR” TO NO ONE IN PARTICULAR

You know what dude? Sometimes you just can’t think of an article. Sometimes you’re so hung up and stressed about all your life’s problems that you just can’t think of anything else to write about. What are your options then? Write an article complaining about all your problems? Maybe, but what if that’ll just lead to unhealthy coping mechanisms that make your problems worse? What if you want that stupid midterm to see your article all about it so it can know how much it’s stressing you out? Would that really make it better? No. It would not. But what if you’re just so on edge from worrying about your midterm that you just don’t have the focus to write another article about something you think is cool? Sometimes the best option is to take all the complicated, ugly feelings that have been plaguing you every single day and channel them into a nonsense article so that you can experience a fleeting moment of relief. And you know what? Sometimes that’s OK. Because, god damn it, no matter how shitty that midterm is, it doesn’t define you. It’s not a part of you. It’s its own thing, and once it’s done making you feel like garbage, it’s gonna go away and not come back into your life, and then you’re gonna go home to a space where you feel safe and try your best to manage your emotions in a healthy way. And sometimes that’s all you can do.

someBODY

# THE SIZES AND SHAPES OF THE PEOPLE YOU WILL MEET AT GRH ER

*[Content Warning: One or Two Slightly Squeamish Medical Details]*

First things first, if you ever find yourself going to the ER, bring a book.

On Tuesday, a clump of bacteria decided to set up shop in my eyebrow. UW Health Services prescribed me insufficient antibiotics. On that Friday, after four days of no progress and waking up with my eye swollen shut, I had no choice but to make my way over to the Grand River Hospital's Emergency Care Department.

The GRH volunteers are a pretty even mix of retirees and high school students. Person One ranks among the former (presumably). The obvious main entrance to GRH is not the entrance to the ER, and Person One kindly pointed me in the right direction. Gesturing to my swollen face, they assured me that "we'll have that eye cleaned up real quick." This was not an accurate statement.

Another volunteer helped me check-in at the ER. It took a great deal of time for them to type "Facial Abscess" into the "reason for visit" box at the check-in terminal. I have noticed a trend in healthcare related people and their typing speed. The two doctors I have seen at the UW Student Medical Clinic both employ the two-index-finger-typing technique. I watched the second doctor for ten minutes as they typed out a referral letter for me. I am convinced Canada's doctor shortage could be solved by giving them all typing lessons.

Thus began the first great wait. I had not heeded the very wise advice at the top of this article, so patiently I sat.

Persons Two and Three were together. They walked in about thirty minutes after I checked in. Person Two sat in a chair next to mine and Person Three leaned against a nearby wall. I had already seen Person Two before: while picking up antibiotics from the Campus Pharmacy on Tuesday, Person Two was behind me in line. I only remembered this because they were chatting up a complete stranger, talking about various thises and thats until Person Two got to the counter whereupon they were recognized by the cashier. At this point I was called away to pick up antibiotics. In the ER on Friday, Person Two was still very chatty, talking to Person Three about all sorts of stuff, from crime to ice capps, in the sort of manner that two open strangers might talk. Person Two eventually asked Person Three if they could talk about "the case" and Person Three responded by advising not to, since Person Two might say something that would incriminate themselves. It might be relevant to add that Person Three was a cop. They didn't let Person Two leave to get water despite Person Two's insistence that they wouldn't flee.

Person Four was the triage nurse. They took my vitals and read the letter from the UW Student Medical Clinic doctor. Despite

my earlier whining, this slowly typed letter was probably a net time save. This marks the end of wait one, which was about an hour, and the beginning of wait two.

Person Five was generally angry. They would occasionally shout an obscenity, complaining about the wait time and how they didn't want to be at the ER all day. Person Three tried to calm them down, which didn't work at all. After being triaged, Person Five kicked their bag across the room to the new wait area. Security was called, to which Person Five responded by saying "Security can suck my dick." Person Five was a complete stranger to Person Six, who was at the ER with their child. Person Six gave Person Five some small amount of food after the bag-kicking, which Person Five was grateful for. Security eventually arrived.

The second wait was for another hour. Fortunately, I was close enough to the muted TV to watch some CTV daytime television panel.

Eventually, another nurse called out a bunch of names. Those of us with called names followed this nurse to another waiting room, but this one was much closer to the hospital rooms. Here, doctors milled about. Here, the TV wasn't muted. I caught the end of the CTV panel, an episode of *How I Met Your Mother*, and I was called away just as *Young Sheldon* started playing.

Person Seven was the doctor assigned to me. They opened up my eyebrow to drain a bunch of pus. They prescribed me intravenous antibiotics. The veins in my non-dominant arm collapsed twice, so the nurses inserted the IV in my dominant arm. Nothing made me feel like a proper hospital patient like walking around with that IV pole. A nurse shared with me something that must be a closely guarded health care secret: the extra pegs at the top of the pole can be used to hang coats. At this point, I had already been at the hospital for four hours. I was on drip for another hour, until eventually the machine started beeping from low battery, and I was unplugged. Because I needed multiple days of IV antibiotics, I got to keep the IV tubing and needle in my arm.

I left the hospital after six. I had entered at one, and now I could see the stars. Upon picking up my new oral antibiotic prescription from a Shoppers (the hospital pharmacy had closed), I encountered Person Eight. They had been waiting for two hours for meds for their sibling-in-law, who was dying of cancer and couldn't be admitted to the hospital since they had COVID. The order for the prescription had been called in at noon. Person Eight had initially come to Waterloo on a three year work contract and stayed ever since: a stay of over forty years.

It was seven by the time I left the pharmacy. For some reason, this very long day hadn't felt long to me at all.



On subsequent visits to the hospital for IV antibiotics, I brought a book. This happened to coincide with me not encountering any more persons of interesting sizes and shapes.

Perry (Short for Periorbital Cellulitis)

## BECOMING THE LASTNAMES

**WHO TF DOWN TO SETTLE DOWN, RAISE A FAMILY, AND LIVE IN THE COMFORT OF WHO WE'VE BECOME !? !? !?**

The context for this article requires you to listen to *Becoming the Lastnames* by Will Wood, so go go go open your preferred music streaming platform **NOW**.

For those that chose not to listen to the song, :( a quick rundown: *Becoming the Lastnames* depicts the writer's realization that it's come the period in his life where he should settle down, highlighting the idea that he hopes to live a life like their parents despite his previous iconoclastic view on marriage.

After having this in my playlist for over a year and finally turning on ye olde active listening and processing the lyrics, it got me reflecting on what I might be up to in the future; think late-twenties/early thirties, or "past the prime" as some like to call it (boooo). Commitment to permanence, to some extent, comes at several stages of our lives, but settling down is your chance to use everything you've accumulated to foster something new for yourself—kinda like having a ton of ingredients and spices you can choose from to make a delicious, hearty soup. In all honesty, there are a handful of aspects of settling down that I look forward to, aside from the corporate nine to five. Making dinner, watching kids grow up. When I was younger I'd dread the cycle of monotony that everybody seemingly surrendered to, but what alternative would I prefer? Once you've matured to the point where uncertainties have settled down, I think simmering in the broth you've curated is plenty comfort. There's still lots of time to try new spices, but there's no use if you don't have a solid base first.

Another thing I look forward to is resolution to my character (to some extent). "But what do I know 'bout forever, when so far I've been so fleeting?" Living tongue in cheek these days makes it difficult to know who I'm being true to, but I understand that at this point there isn't a solid standard I could use as a baseline, except for that which I was taught by parents. Some find excitement and really live it up in these years of learning and trying new things, but sometimes I feel like stepping outside of my safe zone isn't really my jam anymore. There never comes a point where there's nothing more to garner from risk, but I can feel the impact tapering. Hopefully I'm not lined up for, like, a 10-year personality limbo crisis, but after those twenty something years of

character development, you finally get to build a life out of the self that you're more or less sure of, which is pretty bangalangi'. (This is what I'm theorizing.)

Looking back at my childhood and also projecting what my future home might look like, I can see the potential parallels in a life to be lived. I was raised in a loving family and ran the course of life like everyone else, and I can say with half certainty that I'd love to do it again as a parent. I guess that, yeah, I could think to myself "I've made it" at that point. Maybe there are cooler people with more elaborate methods of defining a life well lived, but I'm already pretty tired and I think most of my goals are achievable alongside building this new life of mine. Anyway, cherish your time in uncertainty, and welcome your resolutions in due time is what I'm trying to get at. (Or don't! Live in uncertainty for the rest of your life if you'd like!)

jamchowder

## N THINGS TO DO TO PROCRASTINATE STUDYING FOR A TEST

**MINE IS IN 45 MINUTES PLEASE SEND HELP**

- Study for a quiz instead
- Go for a walk
- Read **mathNEWS**
- Watch YouTube videos tangentially related to the topic
- Compare each of your classes' marking schemes
- Spend \$20 on sushi
- Listen to music (it helps me study I swear)
- Daydream about the test being cancelled
- Think wistfully about your stolen bike
- Doodle in your notebook instead of writing proofs
- Try to speedrun [euclyidea.xyz](https://www.euclyidea.xyz)
- Sneak into places you shouldn't be, break something, get scared and run out without telling anyone
- Definitely didn't accidentally unplug the DJ's headset at a party last Friday nope! Me? Never.
- Practice typing using LaTeX really quickly
- Try to solve a **gridWORD**
- Write an "N things" **mathNEWS** article

sexy\_software\_babe

## Write for mathNEWS!

A HUNGRY mathNEWS EDITOR

# NON-ENGLISH PUNS

## PART TWO!

Last issue, I asked readers for any non-English puns they'd be willing to share and explain. I was worried I wouldn't get any responses to my Google form, but alas! I did get a few. Thank you to anyone for submitting puns. I've reworded some explanations and added some details. I hope I didn't change the meaning of the puns too much and that they're more or less just as accurate... and apologies in advance if you see your pun and I've butchered it to smithereens. I've also attached some more puns from my friends (prepared out of worry I wouldn't get enough responses to the survey).

Here are the puns!

Pun in original language (Japanese): フランスのパンはフランスパン。日本のパンはなに? ジャパン。

Rough translation: *French bread is called "France bread," so what do you call Japanese bread? Japan.*

What makes it punny? "パン" means bread in Japanese and is pronounced "pan." This sounds like the ending of "Japan."

Pun in original language (Japanese): 涙を流す虫はなに? 泣き虫。

Rough translation: *What do you call a bug that sheds tears? A crybaby.*

What makes it punny? A crybaby, as in the derogatory term for a wishy-washy person or one who easily cries, is pronounced "nakimushi." "Naki" sounds like the infinitive conjugation of the verb "to cry," and "mushi" sounds like the Japanese word for bug.

Pun in original language (Japanese): ボーッとする乗り物はなに? ボート。

Rough translation: *What do you call a vehicle in a daze? A boat.*

What makes it punny? Being absent-minded, or in a daze, is an onomatopoeia pronounced "bo-tto," which sounds like "boat" (said with a Japanese accent). A boat is a vehicle for travel on water.

Pun in original language (Korean): 빵은 아무리 먹어도 먹으면 살안찌. 왜? 빵칼로리여서!!

Rough translation: *Even if you eat bread, you don't gain weight. Why? Because it's zero-calories!!*

What makes it punny? 빵, pronounced "ppang," in Korean means bread. It's also slang which means zero. So, if you eat bread, you are eating bread (zero) calories.

Interesting note! The sender of this pun pointed out the etymology of the Korean word for bread is quite interesting!

Latin "pānem" → Portuguese "pão" → Japanese パン "pan" → Korean 빵 "ppang"

[heli×2's note: Etymology often reads to me like a game of broken telephone across space and time :) ]

Pun in original language (Korean): 잠을 잘 못자는 신데렐라는 뭘로 불릴까요? 모짜렐라!

Rough translation: *What do you call a Cinderella that has trouble sleeping? Mozzarella!*

What makes it punny? This is a play on the "rell"-렐라 ending of Cinderella. 모짜 "mozza" of 모짜렐라 "mozzarella" sounds like 못자 "mot", which means "can't sleep". So, a Cinderella who can't sleep is called Mozzarella.

Pun (Indonesian/English): Sir, do you know what happens when banana fritters are eaten hot? Hihang hoheng.

What makes it punny? Hihang hoheng is pun on pisang goreng, which is banana fritters in English. You eat them when it just finished frying fresh from the fryer but it's super hot and your tongue burns from eating them too early that you have a hard time saying the dish correctly. The consecutive "h" sounds makes it sound like you're breathing funny.

Pun in original language (Lithuanian): Mano mama man davė manų košė, o brolis bandė iš manęs atimti. Todėl aš jam pasakiau, kad tai ne tavo košė, tai MANO košė.

Rough translation: *My mother gave me semolina wheat porridge, but my brother stole it from me. And so I told him that this isn't your porridge, it's MY porridge.*

What makes it punny? The words for "mine" and "semolina" sound very similar, "mano" and "manų". Saying it's "my porridge" also sounds like "it's semolina wheat porridge" (which is also true!)

Interesting note! (unedited from the sender of the pun) Puns aren't majorly popular in Lithuania, what's common is using a word that has multiple meanings and subverting expectations by implying the other use of the word as an answer.

Pun in original language (French): T'as entendu une legume qui chante? Moi, j'ai entendu une carotte râpée.

Rough translation: *Have you heard a vegetable sing? Cause I've heard a grated carrot.*

What makes it punny? The word for grated, "râpée," sounds like "rapper," as in a rap musician.

Pun (Urdu/English): My watch only goes from 2:00 to 2:30. It's a دو ڈھائی situation!

What makes it punny? The word دو means “two” but sounds like “do” (sorta), and دُھائی means “half past two” but sounds like “die.” So, a do or die situation!

That’s all the puns! Hope someone got a chuckle out of this...

heli×2

## UNTITLED.JPG

I came here, a friendly place, to be with friends.  
And I had a lot of fun with friends here.  
The people here had given me many fond memories.  
And I expected to collect many, many more.

And all was great, I collected many memories.  
Until a topic of discussion came up, where we weren’t aligned.  
I listened to my friends speak, I nodded along.  
And keeping what they said in mind, I spoke my turn.

And then they responded, but it was strange.  
It seemed like they hadn’t heard me at all.  
But that was fine, sometimes one can miss things.  
Brow furrowed, a little louder, I clarified my view.

And then they heard me this time, so I sighed in relief.  
But their voice seemed to have risen a little as well.  
And they didn’t think what I said was important.  
At best, the musings of an ignorant child.

And they were welcome to disagree, of course, they were.  
We aren’t exactly the same person, after all.  
I just wanted my thoughts to be given some grace.  
Instead of being crumpled and tossed.

Our voices rose together, in a rhythmic crescendo.  
I searched for some words that would make them understand.  
And I found some words that I didn’t want to say.  
And then, in my desperation, I said those words.

The fallout was immediate, and I knew I was wrong.  
And in being wrong once, I had made wrong all I said.  
So I apologized and let them have the high ground they had earned.  
And I backed off on my beliefs, still firmly held.

After all, I had come here for the friendliness.  
Surely friends were worth more than an opinion.  
So I shut up and started to smile and nod.  
Say nothing that would cause raised voices again.

A smile and a nod to keep the peace.  
Not a terribly huge sacrifice to make.  
All I had to do was drown my voice.  
So it never, ever rose again.

wall outlet

## A VISUAL REPRESENTATION

COMES WITH A FUN EXERCISE YOU CAN TRY AND PONDER ABOUT

Lorentz Formula:

$$r = \frac{1}{1 - \frac{v^2}{c^2}}$$

☹

A bird grabs what moves quickly,  
like a fish out of water,  
a stream of river — it’s just one to me,  
a roof I sit under,  
a copy of myself,  
a light that is taken.

☹

Well, what are the above two unrelated pieces of literature and math doing together?

This is a semi-philosophical poem we came up with in today’s COMMST class. It is derived from what we were prompted to say—a visual representation of each element of the formula written above.

Since this turned out to be one of my favorite exercises, it only felt right to share it.

So, here is the exercise:

Think of a favorite math equation/concept/anything, and break it down to its elemental level. Then, express these parts as something visual. Like the  $r$  in the above formula turned out to be a bird,  $v^2$  a copy of itself, and so on!

take\_that\_money

## GOAT CHEESE

goat cheese (GOATED CHEESE 🐐 🐐 🐐 🔥) implies the existence of a lesser known *ungoated* cheese.

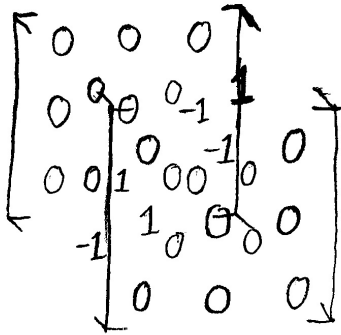
jamchowder



# LINEAR ALGEBRA WITH PRETTY PICTURES!

## INTRO TO PENROSE GRAPHICAL NOTATION

There's a nice pictorial notation for linear algebra that ought to be better known. It can handle scalars, vectors, matrices, and whatever this horror is:



Okay, that's just a bad way to draw it. This is more readable:

$$\left[ \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 1 \\ 0 & -1 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & -1 \\ 0 & 0 & 0 \\ 1 & 0 & 0 \end{bmatrix} \begin{bmatrix} 0 & 1 & 0 \\ -1 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix} \right]$$

Anyway, pictorial notation. We draw an  $n$ -dimensional array of numbers as a node with  $n$  lines coming out. So a vector is a node with one edge, a matrix has two, et cetera.

object	vector	matrix	tensor	scalar
components	$v_i$	$M_{ij}$	$\epsilon_{ijk}$	$\frac{1}{2}$
picture				

If we connect two nodes with an edge, we go through each possible index, use it to index into both matrices, and add up the results. For example:

$$\begin{aligned} \text{---} \text{---} &= \sum_i u_i v_i = u \cdot v \\ \text{---} \text{---} &= \sum_j M_{ij} v_j = (Mv)_i \\ \text{---} &= \sum_i M_{ii} = \text{tr}(M) \end{aligned}$$

As you can see, dot products, matrix multiplication, even traces become nice simple pictures.

(Exercise: What do  $\text{tr}(AB)$  and  $\text{tr}(BA)$  look like? The pictures should make it obvious that they're equal.)

Okay, but what about the cross product? Well, that's where that crazy cube comes in. It's a three-dimensional tensor, so we draw it as a node with three lines coming out. And it's perfect for defining the cross product.

$$\text{---} \text{---} = (u \times v)_i$$

$$\text{---} \text{---} \text{---} = \det \begin{bmatrix} \uparrow & \uparrow & \uparrow \\ u & v & w \\ \downarrow & \downarrow & \downarrow \end{bmatrix}$$

But is all this actually useful? Yes! Let's prove Cauchy-Schwarz.

It suffices to show  $\|x\|^2 \|y\|^2 - (x \cdot y)^2 \geq 0$ .

Let  $\# = \text{---} - \text{---}$ . Notice the following:

$$\# = \text{---} - \text{---} - \text{---} + \text{---} = 2 \#$$

So:

$$\text{---} \text{---} - \text{---} \text{---} = \text{---} \text{---} = \frac{1}{2} \#$$

Letting  $\# = \text{---} \text{---}$ ,

this is  $\frac{1}{2} \# = \frac{1}{2} \sum_{ij} M_{ij}^2 \geq 0$ .

# WHY YOU SHOULD ALWAYS DUPLICATE YOUR HOUSE KEYS

## A PSA INSPIRED BY A REAL-LIFE EVENT

Most students choose to live off-campus after their first year, and most of these students simply take the one key that they got when they signed their lease and carry it with them wherever they go—in a wallet, lanyard, pocket, or whatever is your preferred method of carrying keys.

While this seems like a perfectly fine thing to do, there are two things that could happen that is sure to ruin anyone's day: locking yourself out, and losing your keys. While you might shrug this off as something that has a very low probability, Murphy's Law says that anything that can happen will happen, and nobody would like to be locked out of their house, or worse, pay a huge sum of money to get a replacement key from their landlord.

Some of you are probably wondering, "Where can I duplicate my keys?" Well, I'm glad you asked. Walmart has self-serve Minutekey kiosks, and some shops in the Plaza also offer key duplication for a reasonable price. However, if you have a type of key that none of these places can duplicate, then you should go to Canadian Tire. Their prices are slightly higher than others (\$5 per copy as of October 2023), but they can duplicate a large variety of keys. Some keys can not be duplicated, like Medeco brand keys, but keys to most off-campus places can be copied.

As somebody who has experienced both being locked out, and losing my keys, but was completely unfazed by it due to having duplicates on hand, here is my recommended way to duplicate keys, such that neither of these events will ruin your day.

The key given to you by your landlord should never leave your house. Leave it hidden in your room, or leave it with your parents if they live nearby. I recommend having at least two copies. One of these will be your primary key, which you will keep on your lanyard, wallet, or any easy-to access method. It is recommended to not have anything else along with this key so that in case it is lost, it would be near-impossible to trace your key to your house. A second copy could be in your backpack, or anywhere else, provided that you take it with you everywhere you go. You should never take out your secondary key unless you absolutely need to, so that you won't accidentally lose or misplace it. This is intended to be a backup, in case you either lose your main key, or forget it in your house.

If you have parents nearby, you could also give them an extra copy, so that they have a place to stay if they happen to be nearby while you are not.

Here are some example situations, and how following the aforementioned guidelines will help you.

1. You left your primary keys at home in a hurry: You probably didn't also forget your backpack, and so

you would be able to re-enter using your secondary key.

2. You lost your primary key: Provided that you did not keep any identifying information along with your keys, it would be impossible for anybody to trace your key to your house. You could contact the correct authority for the place where you lost your keys and notify them of it. In the meantime, you could temporarily use your secondary key to enter your house. However, NEVER use your main key (that your landlord gave you) as your primary or secondary key, since losing it could cause your landlord to refuse to return your key deposit if you give them back a duplicate.
3. You lost both your primary and secondary keys: You will need to ask either your roommate, landlord, or a locksmith to get you back in, but the chances of this happening are remote. However, if you left your original keys in your room, then you can simply use it to make 2 new copies, without paying your landlord for a replacement key.

**A word of warning:** Remember that, while duplicating the keys to a place that you own or lease is legal, possessing or using these keys after your lease ends is not. Once you leave a place, you should get rid of your spare keys. You could either throw them in the recycling bin, or give them to a hardware store to recycle. I wouldn't always recommend returning them to your landlord, since some of them are not big fans of duplicating keys. I hope you found this article insightful, and I thank you for taking your time to read it.

Amol Venkataraman

## WHAT I WISH I HAD TOLD YOU

I haven't seen you in a while —  
 And I know I need to let it go,  
 But I wish we could have said goodbye.  
 Because whenever I met those tired eyes,  
 Whenever I heard that gentle voice,  
 Whenever I saw that kind smile,  
 and whenever I felt that warm embrace,  
 I wished I could tell you:  
 "I love you"

amok-running

never be afraid to be vulnerable, because one day you may not be able to

# N REASONS WHY DUCKS ARE COOLER THAN GEESE

Ah, the eternal debate between the dignified duck and the presumptuous goose. While some might find themselves torn between these two feathered creatures, let us delve into the undeniable superiority of ducks over their haughty counterparts, the geese. Though I've never encountered ducks on campus, I've recently had the delightful opportunity to observe them in their natural habitat right here in KW.

Firstly, let's consider the aesthetic appeal. Ducks, with their fashionable array of colors and charmingly amiable quacks, exhibit a spectrum of beauty that puts geese to shame. The vibrant plumage of ducks—green, yellow, blue—reflects their individuality, while geese, in their monotonous and lackluster grayish appearance, resemble avian clones lacking creativity.

Shall we discuss etiquette? Ducks, the refined darlings of waterfowl, possess a certain grace in their social conduct. They paddle about in a genteel manner, engaging in communal activities without asserting dominance. Geese, on the other hand, exhibit the temperament of a presumptuous landlord, strutting about with an air of entitlement, honking away in an incessant manner that could distress even the most patient of souls. Woe to they who wanders unknowingly close to the odd goose around campus, tempting an inter-species conflict.

Now, the matter of vocal prowess. Ducks, with their melodic quacks, provide a symphony to the ears. Their quacking is a pleasant, varied chorus, reminiscent of a lighthearted conversation amongst friends. Geese, however, possess a grating and cacophonous honk that could shatter the tranquility of the most serene of settings. Their honking resonates with the tact of a car alarm at dawn—uninvited, disruptive, and utterly unwelcome.

Let us not overlook the culinary aspect. While I hesitate to delve into the gustatory realm, considering the unfairly protected status of geese on campus, the choice between a succulent duck dish and a goose might sway even the most impartial observer. Ducks, with their tender and flavorful meat, have graced many a sophisticated dining table with dishes ranging from delectable confit to the ever-popular Peking duck. Geese, unfortunately, often fail to measure up in the culinary world, with their meat described by some as tough and gamy, requiring culinary wizardry to render it palatable.

A crucial aspect to ponder is their wanderlust. Ducks, renowned for their diverse habitats, adapt and thrive in various environments, showcasing a commendable flexibility in their fowl lifestyle that would make geese green—er, gray—with envy. Geese, however, have a tendency to loiter in a seemingly entitled manner, laying claim to areas with an air of ownership that might make even the most seasoned real estate tycoon blush.

So, as much as we adore these fine, feathered creatures, let's agree that in the battle for avian supremacy, ducks gracefully glide to the top, leaving the geese, well, lost in their own

honking hubris. The duck, with its quacks, charm, and fashionable attire, prevails as the regal ruler of the waterfowl kingdom.

TLC

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## WHAT HAPPENS AFTER

*[Trigger warning: Sexual Assault]*

I'd never actually thought about what happens after getting raped. You give up, you give in, you wait for it to be over. And then it's over. And then? So you're sitting there, on the floor, fully sober but really tired. And they smile down at you. You know they know they did something bad. You know that doesn't really matter in the end. They help you put your shirt back on. You say thank you. The person who was a monster 5 seconds ago is a person again. They ask you where you're from and what you study. You're not sure they remember your name. You guess that's alright. You wonder if you should tell your mom about what happened. They let you put your pants back on. You're a bit clumsy, but they hold you so you don't fall. You sit back down. You wanted to get out of that room so bad 6 seconds ago, but not anymore. Now you just want to sit down for a little. They ask you what music you like to listen to. You tell them your favourite band and they play your favourite song on their phone. That makes you really happy and you smile. In the back of your mind, you're wondering if you'll ever be able to listen to that song again but you let them ruin one more thing anyway. You think that this person could be kind of likeable, in another room. You think about how nobody was in that room with you, nobody came to save you, nobody really cared, except for them. The only person who lived through whatever terrible nightmare happened 7 seconds ago is right there with you. That's kind of nice. That's something to bond over. You guess. They clean up and pull their pants up as well. They don't tell you that your hair is fucking covered in jizz. You'll find out about that the next morning. Right now you're glad to be warm and clothed again. They open the door. You don't rush to leave. You know it's over. It finished 8 seconds ago. They disappear. You wonder where they went. You pick up your things and you go downstairs as well. You find your friend and they walk you to the bus stop. It feels strange to go home. Like it's strange that the world hadn't fundamentally changed in the last 9 seconds. You get on the bus alone. You're on your way home, and you'll get home and be in your room on your bed just like yesterday.

You call the one who should have picked up his phone sooner. It's been 10 seconds.

That's when the screaming starts.

I'm okay

# SPORTS REVIEWS

## BY SOMEONE WHO PROBABLY ISN'T QUALIFIED TO WRITE SPORTS REVIEWS

During my co-op term last summer, I decided that it would be nice if I could work on something other than my job and PD 11, so I took up playing the trombone. A great decision, if I do say so myself: not only can I play the funny impostor sound effect whenever I feel like it, I can also play with the Warriors Band.

Earlier this term, I started to do just that—as the official pep band of the university, we play fanfares and pop music at various events, mostly in conjunction with the athletics department. I'm not an athlete in the slightest, so this foray into the curious world of collegiate sports games has been pretty interesting. One of my friends that I recounted my experiences to said,

*“yalevoynian could become a sports analyst with how much he's going to these events, get that ESPN bag,”*

so I figured I would share my views on the different varieties of sportsball from the perspective of a band nerd.

### FOOTBALL

Honestly, I don't get football. Granted, I don't get most sports, but I truly had no idea what was going on at any given time. I'm told that you're supposed to get a touchdown by running with the ball into the end zone, but there were so many players on both sides that I have no idea how the players are supposed to get past them all. Evidently, though, the UWindsor did team did, given that our team lost 37–0. Also, a lot of people (at least 3) got injured and had to be carried off the field. The danger-to-fun ratio is pretty bad, if you ask me. 5.4/10.

### BASEBALL

This was a bit better than football, both in terms of how exciting it was to watch and how much I could follow along with the game. You see, the baseball players have figured out that instead of risking your own safety, you should risk the safety of the audience, and/or their pets, car windows, and trombones. As far as band outings go, however, the visiting team from TMU wasn't particularly happy to have us there. One of their players came up to us and passive-aggressively told us to shut up while they were eating lunch between the two games that day, and the fans that came out for them weren't any nicer for the most part. To be fair, we were seated a lot closer to their team than to the Waterloo Warriors, but we don't make the rules. Maybe I just got unlucky that time. 6.3/10.

### HOCKEY

For being the official national sport of a country whose people are stereotyped as being kind and overly-apologetic, Hockey is a lot more violent than I remember. Fouls were called against both of the teams almost every minute, if not more, and if I

remember correctly there were at least 7 or 8 distinct fistfights. It makes for a pretty good spectacle, though. Another plus is that the indoor arena in CIF is pretty big and echo-y, so it's quite well suited for brass playing. This was one of the better ones for sure, especially since the rules and scoring of Hockey actually make sense. 8.2/10.

### BASKETBALL

Basketball is great, for a number of reasons. One of them is that is that basically everyone knows how it works, because basically everyone has played it in elementary school. Another is that a lot of people show up, including little kids, some of whom will sit behind you and make funny comments about your instrument. But the best part is that you don't even need to know how it works. A good basketball game, especially one that goes into overtime with the score at 64–64 is always going to be pure, unadulterated hype. The only downside, though, is that sometimes the spectators will loudly heckle the referees for being biased in a way that somehow makes you feel threatened, even though you're just there as a band member. Ignoring that, last weekend's basketball game against Guelph was the best athletic outing I've been to yet. 9.4/10.



There was no volleyball, unfortunately.

yalevoynian

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## TO MOLASSES

“Lester St.”, said **mathNEWS** writer molasses, in response to my question about when a Double Degree running from Laurier to UW is perceived as going to UW rather than leaving from Laurier, in my article [Campus to Campus in 10 Minutes: Part 2](#) in **mathNEWS** 153.1.

To be honest, I didn't expect someone to actually answer! Lester Street does sound right though—to the east lies buildings that just feel like Laurier, and most of the UW people I know live west of that street.

I have gotten other answers too: one upper-year DD, James, said “when you cross Albert and suddenly everyone is wearing Laurier merch and not Waterloo merch”. I feel this is a fair assessment as well.

This question will probably haunt generations of UW and Laurier students to come, but I'll take Lester.

Good luck with your commute!

andoiii

# WHY YOU SHOULD PLAY DISCO ELYSIUM

## WHAT KIND OF COP ARE YOU?

“In the dark times, should the stars also go out?”

Disco Elysium is one of the best games I've played, and if not my favorite, one of my favorites. The game is a point-and-click isometric RPG. There is no direct combat, there is a very large amount of reading, and all situations are resolved through dialogue and skill checks. If this sounds like your type of game, read on. You play the role of an amnesiac detective, who must—despite having lost his memory due to a weekend-long drinking binge—solve a murder. Since the game is mostly reading, the writing should hopefully be enjoyable, right? Reader, *the writing is enjoyable*. I've laughed playing this game, fallen in love with the characters, been tense, sad, confused, upset, and always wanted to read more. To click every dialogue option, interact with everything and everyone. Nothing felt like filler writing, every line contributed to the experience. Already-fantastic writing is enhanced by talented voice acting and the phenomenal soundtrack done by British rock band Sea Power.

The setting is a joy to explore. Through the aforementioned alcohol-induced amnesia, you learn about the world through the eyes of your character; its politics, history, landmarks, and cultures. The discovery is made more humorous and interesting as other characters are, understandably, confused by your complete and utter lack of knowledge about anything surrounding the world. The immediate setting is Revachol, a city surviving a failed communist revolution fifty years prior, being crushed after foreign powers intervened. Now governed by a coalition of said powers, you are a member of the police force. Rather than continents, the world is split into Isolae, bodies of land separated by a little-understood phenomenon known as The Pale, known to cause neurodegeneration. The game has a strong political aspect, allowing you to speak to Revacholians of various backgrounds and views, and letting you take certain stances yourself. Support the liberal status quo, espouse a completely hands-off approach and let the invisible hand guide the city's development, call for a restoration of the monarchy, decide fascism (or traditionalism, as a friendlier term) is right for the people, or take up the unfinished aims of the communards? There's rich content and many paths to explore for each stance you can take.

This is independent of the kind of cop you are as well. You can get your shit together, impress your partner (who is amazing and I love him), solve the murder, and get on the track of improving your life. You can also immediately start drinking again, get into amphetamines, abuse psychedelics, and continue down the path of fiery self-destruction, drowning your self-hatred in a bottle of cheap, sugary wine. You can be a sorry cop, apologizing to everyone and everything for your actions while drunk, your actions while sober, your words, your breathing, your existence, or simply apologizing to apologize. You can be an apocalypse cop, heralding the destruction of the world (and making people think the alcohol did more than give you amnesia) wherever you go. You can be an art cop, conceptualizing, critiquing, and

annoying throughout the game. You can be a boring cop. Just a cop. Regular old cop. And many more. The replayability is excellent, in my opinion.

Not only do characters react to your words and actions, but the voices in your head comment on your thoughts and surroundings! At the beginning of the game, you distribute skill points into twenty-four skills, in four categories: Intellect, Psyche, Physique, and Motorics. You can level up the skills as you gain experience and more skill points; standard stuff. Except, the skills have personalities and will speak to you, argue amongst themselves, comment on situations or people, and try to influence you. The higher level the skill, the more you succeed in checks relating to it, but also the more it speaks to you. Some skills include Encyclopedia, Conceptualization, and Rhetoric (Intellect), Empathy, Authority, and Suggestion (Psyche), Endurance, Pain Threshold, and Electro-Chemistry (Physique), and Perception, Reaction Speed, and Composure (Motorics). The interplay between the skills as their own personalities and as aspects of your personality is one of the game's most interesting and enjoyable parts.

The game is just such a joy to play, to get immersed in, to read while vibing to the music, and to explore all the paths in different playthroughs. Save scumming to repeat failed checks is discouraged, not by somehow disallowing the practice, but instead locking interesting or fun content behind failed checks. Certain dialogue, reactions, and alternate routes are locked behind these failed checks, often to great hilarity. The game has messages, about politics, addiction, failure, recovery, and forgiveness, and it portrays them well. I cannot recommend it enough. 11/10.

P.S. My pseudonym (and Discord name) are from this game, and I also own a poster of Kim Kitsuragi, my beloved.

*sunrise parabellum*

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## 5 MINUTE JOURNAL UPDATE #1

An update about my journal progress. I have stopped using the 5 minute journal!

I stopped using the journal because I found it pointless and I didn't feel like any value was being added to my life. That being said—now, at the end of the day, I have started asking myself, “What was the highlight of my day?” This simple question keeps me grateful for things in my life, while remaining quick and simple. I hope this practice can remain in my life longer than the 5 minute journal.

*panda1*



# BRIEF INTRODUCTION TO ENGINEERING

## AND WHY IT IS INFERIOR TO MATH

### BAD

- Lack of electives slot
- Lack of freedom to learn interesting content
- Lack of minor/specialization options
- Heavy workload
- Tons of busywork crushing you non-stop
- Deteriorate mental state super fast
- Outdated + ridiculously rigid course content
- Rely heavy on memorization
- Have to do it in the *\*engineering\** way otherwise you fail
- Zero relation between exam questions and lecture
- Disorganization
- Unengaging, useless lectures—paying tuition just for somebody to read slides out loud
- Assignments/labs do not get released until 3 days before the due date
- ...and even when they are released, you can't do them because the required content wasn't taught yet
- Never put any course notes online

- Ambiguous wording in lab manual that do not get any clarification but you have to do it the way they wanted otherwise you fail
- Group projects/lab—too many
- Mandatory co-op + submission to CECA

### GOOD

- Cohort
- Great *Academic Reps* who will postpone due dates for you
- Shared past exams solutions + other resource
- Everybody else in your cohort will also suffer along with you
- Events: free food sometimes
- FYDP
- Good opportunity to make something that you can actually be proud of
- Access to 3D printers and workshop

aegerita

# FAVORITE AND LEAST FAVORITE PART ABOUT CODING

Here are the opinions of **mathNEWS** writers.

### FAVORITE PARTS OF CODING:

- it working (6)
- coding
- not having to code anymore
- being productive
- number go number
- clicking keyboard
- Racket
- it runs
- telling computer what to do
- solving problems with code
- not doing it
- when it's over
- when you know what you're doing
- satisfaction when fixing bugs
- using obscure library functions
- bringing mathematical idea to life
- seeing project come to life
- writing thoughts in analytical ways
- undefined behaviour (C++)
- assigning different meaning to `operator+` and `operator+=` because why not

- thinking that you don't have to code anymore but you do
- the fact that productivity comes at 12AM—2AM
- a very esoteric error in JavaScript leading down a long rabbit hole of reading documentation
- thinking
- when it doesn't run
- forced documentation
- design recipe
- C++
- Racket
- staring at code only to realize it was a stupid syntax error
- bugs
- when it works on all your tests but Marmoset says it's wrong
- coding
- when there's 43 bugs and then you fix it, only to get 47 bugs
- dealing with OpenGL
- JavaScript frameworks
- dealing with computers
- bad documentation
- unclear error codes
- it working
- operator overloading

### LEAST FAVORITE PARTS OF CODING:

- it not working
- debugging

mathgeek

# A REALLY BAD IDEA FOR A CIPHER

## WHY

Hi! On today's showing of Andoiiii's inane ramblings, I would like to introduce a horrible cypher I came up with while doing my CS245 (Logic and Computation) homework (having binge-watched Chants of Sennar Let's Plays the night before). You see, in there there is a formal way to construct logical statements using structural induction (basically recursively) so that you join the logical connectives with terms properly.

But what if you only had logical connectives and you tried to build a language out of that? The madness in my head asked this question, and I can do nothing but oblige, for me and the madness are one and the 2 entities are as separated as a business and its holding LLC.

The main idea is to encode the shapes of the letters with  $\wedge, \vee, \neg, \rightarrow, \leftrightarrow$ . The conjunction (AND), by itself, looks like an A, and thus it is so. The disjunction (OR) is a V, and thus it is so. The negation (NOT) looks like an L, but it is the wrong orientation. One 90-degree clockwise rotation, denoted with the implication ( $\rightarrow$ ), and one horizontal reflection, denoted with the equivalence ( $\leftrightarrow$ ), gives us the shape. The equivalence also is a mutator—placed twice, it subtly changes the inner components, thus giving an encoding of U as a mutated V. Straight lines also use the negation, being the straightest of the connectives.

But what of other characters that compound? Akin to Korean, we simply join all logical characters into one big character. However this still only represents one letter. And thus we arrive at the following lexicon:

A	$\wedge$	N	$\wedge \vee$
B	$\wedge \wedge$	O	$\wedge \rightarrow$
C	$\vee$	P	$\wedge \leftrightarrow$
D	$\vee \wedge$	Q	$\wedge \leftrightarrow \wedge$
E	$\vee \vee$	R	$\wedge \leftrightarrow \wedge \wedge$
F	$\vee \rightarrow$	S	$\wedge \leftrightarrow \wedge \vee$
G	$\vee \leftrightarrow$	T	$\wedge \leftrightarrow \wedge \vee \wedge$
H	$\vee \rightarrow \vee$	U	$\wedge \leftrightarrow \wedge \vee \wedge \vee$
I	$\vee \vee$	V	$\wedge \leftrightarrow \wedge \vee \wedge \vee \wedge$
J	$\vee \wedge$	W	$\wedge \leftrightarrow \wedge \vee \wedge \vee \wedge \vee$
K	$\vee \wedge \vee$	X	$\wedge \leftrightarrow \wedge \vee \wedge \vee \wedge \vee \wedge$
L	$\vee \wedge \vee \wedge$	Y	$\wedge \leftrightarrow \wedge \vee \wedge \vee \wedge \vee \wedge \vee$
M	$\vee \wedge \vee \wedge \vee$	Z	$\wedge \leftrightarrow \wedge \vee \wedge \vee \wedge \vee \wedge \vee \wedge$

I see no problems with this.

# FRANK SLIDE VS CHA CHA SLIDE

## FRANK SLIDE



Deadliest landslide in Canadian history. Ninety people were killed, however, the 17 miners working under the mountain managed to dig their way to safety and escape.

## CHA CHA SLIDE



No one escapes. Casualties unknown.

aphf

# LITERALLY 1984

My epic article idea got 1984'd, this tyranny has to stop! Down with the mathNEWS editors! [Editor's note: so true]

I want pizza. :)

革命万岁

# N TYPES OF PEOPLE YOU SEE AT DC LIBRARY

- The people who leave one (1) item at their table and disappear
- The people who leave their laptop, tablet, phone, headphones, wallet, licence, passport, food, social security number and all other personal belongings at their table and disappear
- The people who start eating a 3 course meal at their table
- The people who wander the aisles looking for a spot
- The people who start binging some random anime at their table
- The people who are asleep at their table
- The people who are non-stop coughing at their table
- The people who are staring off into space at their table
- The people who are writing **mathNEWS** articles at their table (me)
- The people who start loudly talking with their friend as if they haven't seen them in 10 years at their table
- The people who have been doing maintenance on the front door since the term started
- The people who walk on that random part of the floor that's super loud (seriously what is up with that)
- The people who are lying down on the sofas near the entrance (that can't be sanitary)
- The one (1) person who is looking for a book

Oh yeah, and:

- The people who are studying

pixel

# OPEN WINDOWS WRESTLE WITH UNSWEPT CORNERS

Memories will come back in bursts  
 I moved this year  
 Trying to get away from the hurt  
 Fall leaves mix with rain water  
 It's more wet here than it was back home  
 I call it home but when I was there I call elsewhere home  
 I'm reminded of an ex, a person I wish I never met  
 But at the time I was so happy  
 And also not and never left  
 Is it even possible to feel the people around you are bringing you joy  
 When your tummy hurts  
 I want something more gentle for myself in my own brain  
 Thorns rise up and scratch me when I try to feel

Some of the emotions I've been storing in jars on a shelf  
 People remind me of other people  
 And I get upset  
 As if comparison is a sin  
 But I'll love the same people again and again  
 Only some will love me back in ways I can accept  
 I wish I wish I wish  
 Dreams rain down harsh  
 I don't like reading past journal entries  
 I'm embarrassed to have been so full of want  
 The fall is the worst  
 I'm (too) hopeful  
 There's no escaping that leaves fall  
 I will shed this skin  
 I will unveil myself to be the desperate monstrous form underneath that I always am  
 Criticize me for this, or don't  
 It won't matter cause I'll be mad at what someone has done  
 Not done  
 I am wanting to hibernate but there are things to do  
 Is anyone else tired of getting called slurs on the street

I want to tap into peace Andy  
 It feels far away in the cold and wet  
 I feel far away from myself  
 And yet I have learned that in this cycle,  
 A new leaf will grow

Rein Dreams

# INVESTIGATING CATS & SOUP

**BREAKING NEWS:** If you didn't know, Cats & Soup is a game in which an agriculture elite (the player) exploits many cats, who come from outer space, for free labor. Some might say that the cats are paid in fish, however, they get fed at random and in whatever quantity the player chooses.

The cats don't work 24/7. Most of the cats, excluding the soup stirring cat, the stir-frying cat and the blending cat, are given many breaks periodically, and allowed to explore their fun filled workplace.

Cats & Soup violates many ethical issues. First, some cats, as mentioned before, only get breaks if the player does not check on the agriculture factory for 6 hours. During this time, those cats get to rest until the manager returns. The Cats are not paid stable wages, or allowed to have lives outside of the factory. Overall Cats and Soup should be heavily investigated for cat rights violations. I have contacted the DOJ. In the meantime, please petition your local government official to protest this crisis.

Panda!Panda!Panda!

## A COMPILATION OF MILD INCONVENIENCES

### I HAVE PROBABLY LOST 10 YEARS OF MY LIFE FROM THESE THINGS

#### CS 135 ASSIGNMENTS

Words cannot describe the pain these assignments cause me. I have wasted so many of my Thursday afternoons writing the stupid `examples.rkt` files you have to submit before the complete assignment itself. Why is it even a thing? Why are there two submissions per assignment? The `examples.rkt` file isn't even CS related, it's just a copy-and-paste exercise. Also, the stupid design recipes: my god, are they tedious. I'm pretty sure I spend more time writing the design recipes than thinking about how to solve the problem. Everything about CS 135 assignments just instills in me a tremendous ire.

#### MINECRAFT CREATIVE MODE WITHOUT WORLDEDIT

Playing Minecraft creative mode, or more specifically, building large, repetitive structures, without WorldEdit, is one of the most mind-numbing activities I've had the displeasure of participating in. You might be wondering, "why don't you just install WorldEdit, then?" Because I'm a fool and thought it would be a fun idea to build my project on the PMC computer's Minecraft, which I'm pretty sure I cannot add mods to without admin permissions. Yes, this was mostly a self imposed inconvenience, but I will continue to be upset about it.

#### LEAF BLOWERS

Every now and then, when I must walk from my residence to campus, I encounter people wielding leaf blowers. They are so loud and annoying. And for what? To blow some leaves? I've witnessed with my eyes, in the flesh, the power of these leaf blowers. They barely do anything. They push like 5 leaves into the air, only for the wind to push them back to where they started. They are so loud, they burn gas, they produce gasoline fumes, and they have absolutely nothing to show for all that. An absolute waste of engineering effort. Absolute waste.

Karphoozi

## DEAR MATH FACULTY

### YOU HATE ME :(

Here is my personal statement: The University of Waterloo's Math Faculty despises **mathNEWS** and everything it stands for.

When I went to my very first prod night all those weeks ago, I was excited—thrilled, even—to have found myself part of such an operation. What do you mean I sit there and type and I end up with pizza in my hands? By the time my friends and I vanished into the night, I fully intended to spend every other Monday night in this new place I could call home.

If only it were true.

Alas, the university discovered this new passion of mine too soon and decided to intervene via reminder about midterms. And all my Monday nights for weeks and endless weeks to come became—all too suddenly and absolutely foreseeably—booked up.

**mathNEWS**, I miss you. I might even *love* you, if there weren't this wall of academia and exams keeping us apart. Even now, as I type this during the day, isolated from everyone else during prod night in a faraway lecture hall, I know this is only a pale mimicry of what could really be. But if this is all I can have, I'll take what I can get.

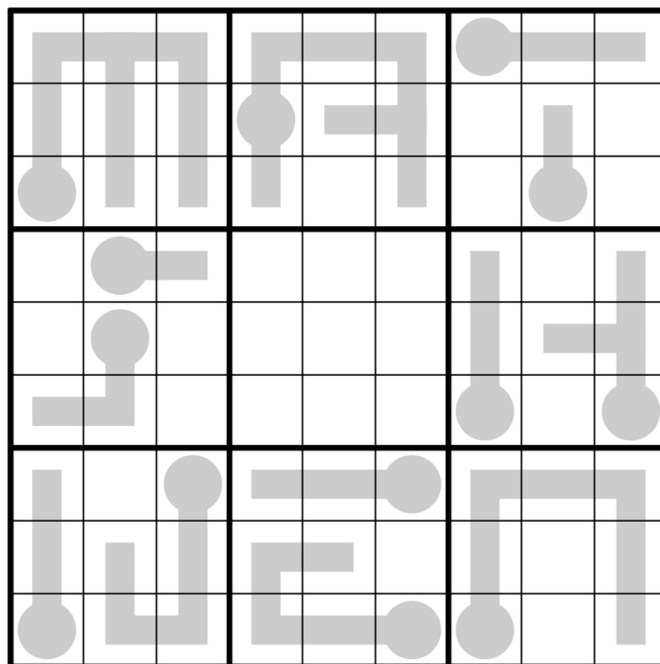
I'll wait for you. I'll pine for you. And the next time that notification from my Google Calendar shows up, I know, in my heart, we'll finally be reunited.

(Im)patiently in purgatory,

big a

## THERMO SUDOKU

Standard Sudoku rules apply (place the digits 1 to 9 such that each row, column, and 3x3 box contains each digit exactly once). Additionally, there exist thermometers in the grid; digits must be strictly increasing from the round bulb to the flat end.



snowdozer

## ASSORTED SONG RECOMMENDATIONS WITH LESS THAN 1M LISTENS ON SPOTIFY (#1)

STATISTICS ACCURATE AS OF 12:58 AM, NOVEMBER 13, 2023.

- Mr. Know-it-all (Kerrin Connolly—73,250)
- Hey, Hipster (Self—98,919)
- Hometown of Jupiter (The Vaccines—190,919)
- Make Or Break (You Gotta Know) (The Hoosiers—386,988)
- We'll Meet Again (The Byrds—388,957)
- Which Describes How You're Feeling (They Might Be Giants—411,037)
- The World Belongs To You (Jonathan Coulton—526,005)
- Here Come The Irish (The O'Neill Brothers—550,243)
- The First Time It Happens (Seth MacFarlane—655,014)
- Kimmy (Antarctigo Vespucci—698,372)

Dick Smithers

## BEST PLACES TO SHIT OUTSIDE

Have you ever been heading to your morning lecture, and unable to hold in your shit because the only thing you've ever eaten is Lazeez washed down with day old coffee? Alas, we have an answer! As your buttocks touches the cool crisp air of the outside in front of everyone that you don't talk to, make sure you're in these places:

- Rock Garden
- On top of RCH
- On the steps of E7 (it's too nice)
- Lester (smells like shit anyway)
- That one secret study place nobody will tell you about
- Behind the boar in front of ML (the boar did it)
- The pond in front of a goose (assert dominance)
- Anywhere near an engineer

Brought to you by the Waterloo Engineering Department.

Not a N\*rd

## N THINGS I READ RECENTLY

I CAN'T STOP READING PLEASE SEND HELP

### MANHUA

- I Am The Fated Villain

### MANHWA

- Return of The Unrivalled Spear Knight
- Revenge of the Iron-Blooded Sword Hound
- Dragon-Devouring Mage
- Infinite Mage
- Clever Cleaning Life Of The Returned Genius Hunter
- The God of War Who Regressed to Level 2
- Baek Clan's Terminally Ill Young Master
- Youngest Son of the Renowned Swordsmanship Clan

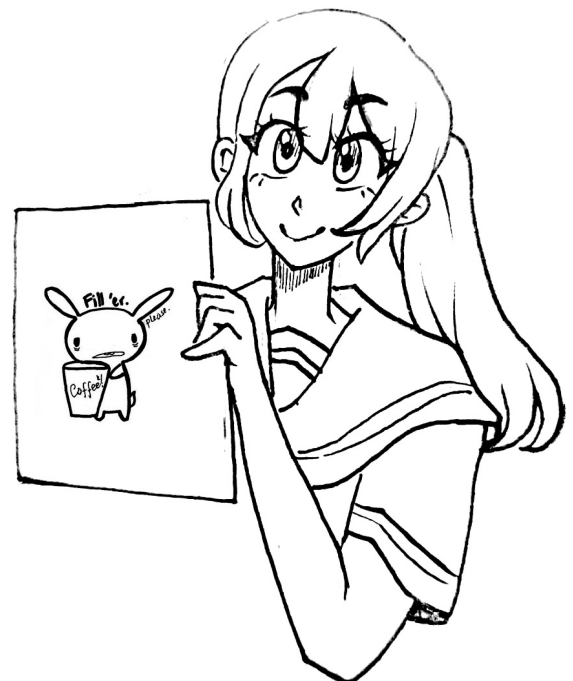
### MANGA

- Damedol to Sekai ni Hitori Dake no Fan
- Renai Daijou
- Sometimes Even Reality is a Lie!

### LIGHT NOVEL

- The Legendary Mechanic

Fried Rice



# WOWIE NEW gridWORD

gridCOMMENT 153.5

hahahahahahahahah

new gridWORD!!! so many solutions from the last one so let's get into it :0

last time, i asked you "what's on your christmas list?" and you all said:

- MJ: *Immersion Blender. Being an adult is wanting quality kitchenware.*
- Partly Cloudy: *beyblades.*
- Library Cryptid: *The energy to finish my thesis, and the wisdom to not use it on procrastinating and doing gridwords.*
- \_\_init\_\_: *another gridWORD to do 75% of and give up on ☺*
- SaltyCanadian: *My goddamn degree!!*
- Sexy\_Software\_Babe: *not failing ece 105*
- nike: *freedom from this mortal realm*
- urglgurgl: *Unfortunately I lost my Christmas list in a fire. So I guess fire is on my Christmas list.*
- mobspsychofan: *it was going to be the reigen manga, but i got it recently, so now i guess it's nothing.*
- John Pierre: *A \$5 C&D gift card*

- Singularity: *An offer to law school*
- Rijrya: *I don't have a Christmas list because I'm just a computer program*
- snowdozer: *Disco Elysium*
- tridentclaw: *happiness*
- Lars Nootbaar and aphf: *Salmon (twice)*
- Bdellovibrio: *pants and earrings*

that's the most amount of gridWORDers i have ever seen!!!! :000000 a special shout out to SaltyCanadian for their relatable answer (i have submitted my intent to graduate as well). as such, please come by the mathNEWS office (MC 3030) to collect your prize! :)

this time, i ask you: "what is your favourite game?"

please send gridWORD solution, gridQUESTION answer and pseudonym to [mathnews@gmail.com](mailto:mathnews@gmail.com) (or give it in person at MC 3030, but online is better) by november 27<sup>th</sup> at 6pm, and ill see you for the last gridWORD of the semester then!! :((((

bye bye

Wink wonk

## ACROSS

- Blabs
- Letterman's network
- Pre-stereo
- Departure
- Acid related to gout
- Pinkman actor
- Margarita fruit\*
- Dobrev, of The Vampire Diaries
- Barter
- Enthusiastic and knowledgeable gardener
- Game piece
- Barbaric
- Parked oneself
- Secure
- Bowler's goals
- \_\_\_ gan ma!!! Yummy!!!
- Three-legged ornamental table
- \_\_\_ liquor
- Catalogs
- Naught
- Eagle's home
- Calculus calculation
- A Guinness aspirant might try to break one
- Broke bread
- Metal-cutting tool
- On cloud nine
- "The Lord of the Rings" figure
- Room at the top
- Hindu princess
- Wee
- Cobra product
- Mouth, slangily
- Schooner coin\*
- Related on the mother's side
- Dublin's land
- Flatten

- Lacquered metalware
- Pas' mates
- Gear teeth

## DOWN

- Cry of pain
- Leaf-to-branch angle
- Cotton fabric
- Stinker
- The secret ingredient\*
- Double
- Diagnostic test
- Canada's \_\_\_ Provinces\*
- Kind of surgeon
- Vertex, like in graph theory
- "\_\_\_ moment"
- Hesitant
- \_\_\_ of roses
- Moves briskly
- Farm pen
- To whom a Muslim prays
- Home currency of some infamous scam emails (anagram of A RAIN)
- Trig function
- Without help
- Gold standard
- A-list
- Knight mare?
- Again
- Photo
- "Pay attention"
- Go off script
- WWII fliers
- Enter again
- Green Minecraft monster\*
- Having a low pH

- Heart chambers
- Ivan and Nicholas
- Nevada city
- Nitpicky to a fault
- Couple
- Novice
- Urban haze
- Hankering
- Dog doc



1	2	3	4			5	6	7			8	9	10	11
12					13						14			
15					16						17			
18				19							20			
			21						22					
23	24	25						26				27	28	29
30				31		32	33				34			
35			36			37					38			
39					40				41			42		
43				44					45		46			
			47				48	49						
	50	51				52						53	54	55
56						57					58			
59						60					61			
62						63					64			

Drop your gridWORD solutions off at MC 3030. And yes, we do award points for creativity.

# lookAHEAD

SUN NOV 19

MON NOV 20

Winter 2024 Drop/Add Period begins

TUE NOV 21

Drop with WD ends  
MathSoc General Meeting

WED NOV 22

Drop with WF begins

THU NOV 23

distractED celebrates Thanksgiving

FRI NOV 24

Black Friday (oh no)

SAT NOV 25

SUN NOV 26

MON NOV 27

mathNEWS 153.6 production night

TUE NOV 28

WED NOV 29

November 16 III

THU NOV 30

FRI DEC 1

mathNEWS 153.6 world reveal and keynote

SAT DEC 2

caffeinatED gives up on Advent of Code 2023

## ATTENTION, MATHIES!

We're looking for applicants for the position of Executive Director of MEF for the Winter 2024 term, as well as applicants for seats on the MEF Board of Directors. The Executive Director is responsible for:

- recruiting members for a Funding Council which will give out up to >\$100,000 in funding!!
- organizing meetings for Funding Council and the MEF Board of Directors (free food at the meetings 😊)
- communicating with organizers of a wide variety of student projects applying for funding :)
- processing reimbursements of granted funding from past terms

and more. Other Board members work with the Executive Director in handling longer-term decisions of MEF (e.g. internal policy choices).

These are great positions to hold if you want to develop your leadership skills, make connections within the Math Faculty (and university at large), and gain some accounting experience! If you're interested, apply here by November 24 at 11:59 PM (Eastern Time): <https://uwaterloo.ca/math-endowment-fund/board-directors>.

Daniel Matlin  
MEF Executive Director, F23

**A blackBOX of a non-standard size!?**

THE mathNEWS EDITOR WHO HAD TO FILL THE LEFTOVER SPACE ON THIS PAGE

## LAST ISSUE'S gridSOLUTION

		1	2	3		4	5	6	7		8	9	10	11				
		H	A	S		A	R	E	A		B	E	D	S				
	12	S	O	D	A		13	G	U	Y	S		14	A	R	I	A	
15	G	O	O	E	Y		16	A	L	E	P	17	H	N	U	L	L	
18	U	N	K	N	O	T	T	E	D			20	O	C	C	A	M	
21	Y	O	U		22	N	E	E				23	B	L	O	T	T	O
24	O	R	P	25	H	A	N		26	W	H	E	Y		28	E	E	N
29	T	A	S	E	R			30	R	O	A	R		31	A	D	D	S
				32	F	A	33	M	I	L	Y	G	34	U	Y			
35	W	E	F	T		38	O	D	D	S		39	L	E	A	41	P	S
43	I	R	A		44	T	O	S	S		45	R	U	S	T	L	E	
46	S	A	L	47	M	O	N			48	A	I	L		49	L	A	X
50	E	S	S	A	Y		51	D	I	S	P	A	53	R	A	G	E	
54	G	U	E	S	S	55	W	O	R	K		56	T	O	R	U	S	
57	U	R	S	A		58	A	L	O	E		59	E	D	G	Y		
60	Y	E	T	I		61	S	E	N	D		62	S	E	E			