mathNEWS

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mastHEAD

"WHAT ARE THEY DOING ON THE MC/QNC BRIDGE?"

So midterms are (mostly) done. I hope yours went better than mine and wish you all gracious curves. I felt nauseous and faint reading N Elements of Order 6 in the Alternating Group of Degree 9. What an enjoyable and proof-based midterm with clever questions requiring you to apply theoretical knowledge. Every term I tell myself the next is the one where I finally lock in. That being said, next term I'm locking in, fall is my academic comeback for sure (please).

Though now that midterms are over, I have a lot to look forward to, like my 19th birthday Monday, and CUMC the week after! If you're going too, I hope you're as excited as I am, I can't wait. Speaking of which, I should probably go back to reading for my talk after this considering the abstract is due on my birthday... It's on the Wedderburn-Artin theorem by the way, look into it, I think it's a really cool theorem and am not biased in any form. It's a classification theorem for semi-simple rings (and algebras), stating every semi-simple ring *R* is isomorphic to a product of finitely many n_i by n_i matrix rings over division rings D_i , unique up to permutation of *i*, That is, $R \cong \bigoplus_{i=1}^{m} M_i(D_i)$. Furthermore, each (left) Artian simple ring is isomorphic to one such matrix ring.

Speaking of not being biased in any form, game 7 of the Stanley Cup Finals huh? I won't spoil in case you (somehow) don't know the outcome, so I'll just say reading The Alberta Hate Leaving My Body Whenever Someone From There Represents Canada Abroad, I probably feel how you feel Whole Number Haver. I don't really follow hockey, or sports in general, but the Oilers during the playoffs are the exception. It is very cool to feel like a part of something like that, though I mostly watch eSports in that regard now. Personal favourites are Smash (SSBU), Rocket League, Guilty Gear, and very rarely, Apex Legends. Though I suck at all of them myself. Smash is probably my favourite to watch.

I'll stop rambling now, and let you read the issue. This time around, we have articles ranging from (questionable) breakup advice to (questionable) PMC advertising to three album reviews, two of which are of Sufjan Stevens. I appreciate being able to get a varied perspective. With that, it is 7:20 AM, and I'm quite eepy and have MATH 247 at 8:30, so briefly eep I shall. Hope you have a great last few days of June.

> abstractED Editor, math**NEWS**

Usman!	MCnD 2: Electric Boogaloo							
VERDANIK	Construction and/or repairs							
Sexy_Software_Babe	idk I'm not on campus lol							
MOLASSES	spawning in the firstyears out of player line of sight (it's to prevent loading screens)							
ANDOIIII	illegal crim syndicate							
HEADPHONES97	installing disco lights and a speaker system							
BSGCG	Your mother and perhaps your father							
TERMINAL	building an irl nether portal							
LARS NOOTBAAR	Not important. The real question is what are they doing in EV2, and why there was a minor fire last monday.							
SNOWDOZER	Installing travelators							
BE'F UN-WELLINGTON	wait they're doing something??							
ERALOGOS	CONSTRUCTION!!!! (literally)							
NORMALPARAMETERS	inconveniencing me personally							
APHF	Beyblade tournament							
Not a N*rd	Making it bigger so it's the MC/////QNC bridge							
NOT_A_UW_STUDENT	Eating Pizza							
JEFF	carpet floor (there is asbestos in the glue)							
	Quantum Tunneling							
INIT	Top secret quantum computing conference (that lasts 3 months)							
SUNRISE PARABELLUM	Destroying the concept of tensor products forever and ever, hopefully.							
BEFUDDLED	building QNC 2							

ARTICLE OF THE ISSUE

Congratulations Kaisa. We all really liked Maxwell. Your prose is very strong, and I really enjoyed the mood you painted with this article. You skillfully get across the feeling of grappling with healing and wondering when it gets better while in such a place mentally, I certainly connected with it. We hope you continue to write. Come collect your prize at the **mathNEWS** office, located at MC 3030.

> abstractED Editor, math**NEWS**

Fun fact: we used a -3 pixel gap this issue! It actually solved all our problems...

AWAB QURESHI, mathNEWS EDITOR FOR SPRING 2024 ALONG WITH OWEN GALLAGHER, SARA NAYAR, ISABELA SOUZA, AND DAVID TERESI

A PUN (PART 4/6) STARTED ON P28 OF 155.1, CONTINUED FROM P37 OF 155.2 AND P5 OF 155.3

"Banner's suspicion of me only deepened over the next fairs," Mark continued, at this point quite deep in the drink. Steve hadn't stopped serving since Mark had crawled in, which was probably not the best idea since—as far as I could tell—Mark hadn't eaten in days. "He'd talk to people and they'd clam up around me, avoid looking me in the eyes. I'd enter a room after him and it'd go quiet. I never heard what he was saying, but his message had consequences for the fair.

"Eventually I stopped asking him to fix the loose Ferris wheel basket—the one I'd sabotaged—since nothing he did reduced rider complaints, but occasionally still during morning setup I'd see him prodding at it, investigating it. He'd chat with Duffy in the duck shooting stall too. While everyone else was avoiding me, those two kept watching me."

"So what's the big problem?" Steve interjected. "Your colleagues are a bit frightful of you, but the fair's still running."

"Fair's still running, yes," Mark paused, seemingly searching for the right words. He was slurring his speech much more than when he had first come in. "But every guest can sense something is off when the crew members are in a foul mood. Although people come for the rides, for the petting zoo, and for the fair food, they don't stay if the environment is hostile. They can feel it. The only thing worse than being on a ride during a sandstorm is being on a ride operated apathetically.

"So I had to remove Banner and Duffy. They were causing the foul mood and removing them would fix it."

"How would that fix it at all?" I asked. "It sounds like people were down since the former Ferris wheel operator had died tragically. 'Removing' more people wouldn't change that, if anything it'd make everything worse!"

"No, I had to kill them," rejoined Mark. "Corpses can't spread animosity, but I had to do it untraceably. Whenever Banner and Duffy suspected I was involved in anything, they steered clear. They weren't foolish like Danno, so Beth and I came up with a far cleverer plan. The fair never went to towns big enough to have a fairground. That was an important aspect of the fair, going places that'd otherwise be fairless. 'Cause of this, we had to scout locations in advance. Since Banner was the fair's mechanic, he always had to go on these trips. There was always a second on recon too, so we just needed Duffy to accompany him.

"Beth managed to arrange the scheduling. She tracked down one of the biggest hotspots of orphaned mines in the Northern Territory, a hotspot so volatile it had swallowed three people in recent years but was still relatively unknown. When it was Duffy's turn to go on recon, she forged a letter posing as a local from that county requesting a visit from the fair. Our logistics team was all too happy to investigate, especially with the recent downturn in attendance 'cause of everyone's foul moods." "Wouldn't two more deaths worsen everyone's moods?" I interrupted.

"Well, no one could trace it to me," retorted Mark. "And besides, we had a plan to improve crew attitude. We'd host a staff-only gala. Get everyone together, get 'em buzzed, loosen 'em up, improve the mood. Convincing the fair to pay for it was a hassle, since we weren't very liquid with our decline in attendance, but management was so desperate to lift spirits in the end they caved. Very few towns we go to have an indoor space big enough for the entire crew, so it took a while to find one. In fact, we didn't find one until the very day that Duffy and Banner were due to go on recon. Not that it mattered, they wouldn't have attended the gala anyways.

"Maybe the rest of the crew was also apprehensive, maybe not. Either way, alcohol on the fair's dime was enough to assuage their worries. I wasn't around that morning to send Duffy and Banner off. It would've aroused suspicion to do so for such a routine event. Not like we had time anyways, Beth and I spent the day transforming the motel conference room into a hall fit for a king. Believe me, if you'd walked in, you'd have thought it was Crown Towers, not some \$40-a-night inn in Alice Springs.

"And so that evening we kicked things off. There were a couple of hiccups, one of the refrigerators broke down but that gave everyone an excuse to drink its contents before they got warm. Apparently, the inn got noise complaints from guests, but they didn't bother telling us. Weren't keen to interrupt a buncha drunk fair workers, I reckon. People were eating and drinking and having a good time for the first time in ages. I barely noticed that, amid all the clamor, someone else had walked in, right through the main doors. Everyone else must have been too distracted, 'cause I was the first to notice him. In the poor lighting it took me a second to realize it was Banner, all sweaty and grimy from the field. He clearly saw that I had noticed him, 'cause he walked towards me. Naturally, I got up and asked him how his outing was, but he didn't respond. Nobody else greeted him as he passed, nobody so much as glanced in his direction. When he reached me, he didn't stop, he just passed by and sat down in my chair, surveying the room."

"Can you really blame the guy?" Steve chuckled. "Poor fellow missed all the fun being out all day!"

"It wasn't that at all," Mark said, voice somber. "Because at that moment I got the phone call, that there had been an 'unexpected' abandoned mine collapse, that Duffy had managed a last-minute escape, but Banner ..."

Mark looked me dead in the eyes.

"Banner was swallowed by the Earth."

To be continued.

HOW TO DEFEAT MARK ZUCKERBERG FOREVER

(IF YOU HAVE AN ANDROID PHONE)

I hate Instagram, and yet I cannot remove it from my life.

This was not my choice. I crossed the point of no return years ago. Maybe I should have insisted that my high school friends set up a Discord group chat instead. Maybe I shouldn't have volunteered to run multiple club Instagram pages. Maybe I shouldn't have decided to start a photography account.

At any rate, I'm trapped. I need easy access to Instagram on my phone or my computer. This is a problem, because Instagram is awful and I actively hate using it. It's a Frankenstein's monster, created slowly over years as Meta grafted aspects of other social media platforms onto the bones of a humble image-sharing app.

Snapchat got popular and they introduced stories. TikTok got popular and they introduced Reels. A messaging system? Fuck it, Meta has like 10 of these already! What's one more? I think there's still a store but I'm too scared to check.

Over the last year or so, I've grown a stronger aversion to social platforms which are too hyper-generalized in function, as well as platforms which shove algorithmically recommended content in your face. Instagram is *aggressively* both of these. I want to feel like I have agency over my digital consumption, that I'm *choosing* how I spend my time and what I take in. I don't want to passively digest junk food; I want to find the delicious, gourmet Lazeez and consume that instead.

But what is there to do? Instagram knows it has me trapped, so it's turned the enshittification dial all the way up. Posts are strategically arranged to draw me into distraction and away from the actual life updates I *told Instagram I wanted to see.* There's no way I can just take an axe and chop everything I hate out of the app.

At least, not out of the *app*.

Let me introduce you to my beautiful friend, the Firefox Mobile app, and his handsome wingman, the Firefox Mobile Extensions Store.

I've been using this as my mobile web browser for about a week now and I have no idea how I lived without it. I'm not even an anti-Chrome guy, but the mobile internet is so comically unusable without an ad blocker, it's startling to me that anyone uses anything else. Don't you guys want to *see* the website?

But that's not what this article is about. I realized that if I could block ads, surely I could block other things. Say, the specific elements of a website that irritate me and I wish would just go away.

Using the extension IGPlus, I was able to remove *every* aspect of Instagram that bothered me. I turned off Reels, the Explore page, the non-chronological main feed. Then, drunk on power, I turned off like counts and stories, and then changed the font. I don't even hate Instagram's font, but I changed it because *fuck you*, *I own the computer and I'm the one who gets to decide how it looks*.

It's perfect. I unfollowed like 800 people I barely knew and now my feed is entirely cool things going on in the KW region and one picture per day of someone I actually care about.

The best part? You can do this for other sites, too. I installed a bunch of extensions for YouTube so that when I access it from the browser, I can freely access features I would have otherwise needed to pay for (no ads, playback with the screen off) and even a few that are completely impossible officially (automatically skip sponsor segments, change titles and thumbnails to be non-clickbait, no algorithmic video recommendations at all). I don't use Twitter or Reddit on my phone anymore, but there are extensions to strip out all the algorithmic distractions from them, too. If it has a website, it's possible to pull this trick. Hey—why not use these extensions on your PC, too?

Look, we all know that social media is bad for us. You don't need that lecture from me. It's destroying our attention span, our brains did not evolve to know what is going on across the entire planet at all times, etc. Going cold turkey is probably the healthiest way to handle this stuff, but it's not actually practical for most people.

I'm honest, though, that's not why I'm doing this. I'm just picky and particular and I want the tech I use to form itself around me. I want what I want and *only* what I want.

Big Tech hasn't wrested the web away from us just yet, and we can still use it's openness and adaptability to our advantage. We can filter out the garbage and have a healthier relationship to the platforms that dominate our lives. We can finally start to assert ourselves, and let *our* tastes change the platforms—not just let our tastes be influenced by the platforms.

And then, once you try it, maybe I can convince you to join me and become an email newsletter guy.

Dick Smithers



Instagram has a mobile site.

I COMPLETED THE UNIVERSITY OF WATERLOO MISSION IN INGRESS

THE WORLD IS NOT WHAT IT SEEMS. IT IS TIME TO MOVE



- It consists of 24 sub-missions, which cover around 230 unique waypoints in total.
- By working on the missions occasionally over the past 5 years, on June 24th, 2024, I became the 61st agent who completed this mission series. The mural was finally revealed to me.
- You may discover new points of interests on campus, i.e. Sakura Project in Mission 8 and UWAG in mission 16.
- One of the reasons why I decided to transfer here at my 3rd year of university was to change the fate of the world by playing Ingress (or Pokemon Go?).

2B OR NOT 2B

Sometimes, when one suds up, a premonition arises in the hair clogging the drain or the shower foam splattered on the wall. Like reading tea leaves, the shower gods spelled out a terrifying truth to me: I am halfway through my academic terms here at Waterloo. And if you are completing your 2B in this summer term of contradictions—thunderstorming and still perpetually sunny, visually beautiful but thermally a nightmare (my condolences to all my fellow non-AC havers)—we are likely being strung along the whirling rapids in the same boat.

I bring a sort of anticipatory grief to the table that the enjoythe-moment crowd in me doesn't really like. It might be a little early to feel these things. I still feel them anyway. The first scene: DC has kept me cool for hours, and the sun and good company bring welcome warmth. My friend has beautiful eyes. She sits right next to me and I miss her already. I know that when we graduate, responsibilities and distance will keep us apart.

Scene two: I walk through the MC-DC bridge, head full with the knowledge that it will cease to exist in its current form, once M4 is built in a few years' time. How many times have I walked down that affectionately claustrophobic, unventilated hall? Its too-close ceiling and too-close walls may only embrace me for a short while each time I traverse it, but it imbues the strength of mathematicians and computer scientists past in me each time, harkening me home to the motherland (DC) and leaving me prepared to forge on.

And a last scene before the curtain call: walking around campus all fuzzy-minded after rotting over practice problems for too long. I try to take in every detail. The |cardinal|<3 family and blue jay that frequent the MC rock garden. The baby geese taking their first steps. I can picture it now, how I will retrace these steps in five years, ten years time with different people and brand-new problems. I wonder who I will be when I walk campus then. For now, though—I will need to pass the term or be stuck in 2B or not 2B perpetually (say that three times fast).

> instantpoodles (cardinality joke courtesy of jiffle)

LINEAR LOVE STORY

Two lines

I LISTENED TO EVERY SUFJAN STEVENS ALBUM

This guy has such a prolific discography that I physically couldn't listen to all his work in time, which I'm okay with since it would've left room for like... 50 words per release? Nine solo albums released over 24 years is a bit more manageable. Off we go. *[Editor's Note: Who is this writer? Anthony Fantano?? Is that you???]*

A Sun Came (2000) — Sufjan played fourteen different instruments on his debut album, which is insane. It incorporates elements from several types of ethnic music, creating a unique, if not slightly disjointed, record with something for everyone to enjoy. It would build the foundation for the majority of his subsequent projects, which are known for including a wide range of instruments and styles. Weird works for him.

Enjoy Your Rabbit (2001)—A more visible theme is present here, although the sound is essentially the polar opposite of *A Sun Came*. Rather than continuing with folk music, Sufjan flips 180 and leans heavily into electronica and glitch, also doing away with vocals. Taking inspiration from the animals of the Chinese zodiac, *Enjoy Your Rabbit* is intended to be a backdrop for the listener's imagination while they write their own story; you're essentially the lyricist. It's a nice concept, though it requires a rather long attention span. I don't have that. But maybe you do!

Michigan (2003) — Welcome to the Fifty States Project! Unfortunately it only turned out to be the Two States Project, since Sufjan abandoned his original idea — or rather, promotional gimmick — of releasing an album for all fifty states in the US. Thank God, since I have a word limit. *Michigan* is a love letter to his home state, chock full of cool references and abnormally long song titles (they'll get longer, just wait). It calls back to *A Sun Came* in its sonic palette, though it's not nearly as expansive, much to its benefit, since it results in a more focused record. Don't pay for that flight to Detroit; you have a free trip right here.

Seven Swans (2004) — Any banjo enjoyers? Religious themes appeared here and there on previous albums, but Sufjan's Christian faith is the crux of Seven Swans, an acoustic beauty ripped straight from the Bible. It's definitely one of his more understated releases, providing a neat period of calm in between the sheer ambition of the two state albums.

Illinois (2005) — This is the record that was adapted into a musical. There is so much to unpack here. Even richer in references than *Michigan*, we are gifted with almost 75 minutes of carefully crafted instrumentation and dense storytelling. Every moment feels intentional and contributes to the overarching theme, a combination of both the Illinois life and Sufjan's life, drawing more from autobiography than any of his previous work. And the longest song title on here has 53 words, so that's fun! Just listen to it; anything else I want to say has probably already been said by some music critic who is much wiser than me. Feel the Illinoise! The Age of Adz (2010) — Representing a major shift for Sufjan, The Age of Adz is rooted in the electronic styles explored in Enjoy Your Rabbit, but this time around, vocals are thrown into the mix (literally). It's not quite as experimental, allowing for more digestible of a listen, and the presence of lyricism is a welcome change too. From this point forward, Sufjan would primarily draw on his own experiences to pen songs, resulting in future releases having more intimate undertones. Sometimes a little too intimate...

Carrie & Lowell (2015)—I don't want to talk about this please don't make me

The Ascension (2020) — I couldn't read the full article due to a paywall but apparently the album's main influence was "Thank U, Next" by Ariana Grande. Wild. Returning to the art pop styles of *The Age of Adz, The Ascension* dials back on the glitch and sounds very smooth and melodic, hypnotic at points. It doesn't reinvent the wheel per se, but Sufjan has done that so many times already that I think he's allowed to do what he wants.

Javelin (2023) — Carrie & Lowell and Javelin are very open in their discussions about loss. This is the more uplifting of the two, owed largely to the folktronica instrumentation, whereas Carrie & Lowell was a lot quieter and airier. Both records are extremely painful to get through, but that's exactly the point; loss is a fact of life and sometimes the best way to confront it is to let music do the talking. At the very least, the eight-and-a-half minute opus "Shit Talk" will do the trick for anyone, even with a silly title. Go listen to that, if nothing else.

Final Ranking and Favourite Songs

- 1. Carrie & Lowell-"Blue Bucket of Gold"
- 2. Javelin—"Shit Talk"
- 3. *Illinois*—"They Are Night Zombies!! They Are Neighbors!! They Have Come Back from the Dead!! Ahhhh!"
- 4. The Age of Adz—"Age of Adz"
- 5. Michigan—"Romulus"
- 6. The Ascension—"Ursa Major"
- 7. Seven Swans—"Sister"
- 8. Enjoy Your Rabbit—"Year of the Horse"
- 9. A Sun Came—"Kill"

JP

AN ODE TO MC

MC has my heart Windowless, barren, and cold Not enough concrete

mathNEWS 155.4

N MATH JOKES CONTD.

QUESTIONS

- 1. How do you make seven even?
- 2. How are the dollar and moon similar?
- 3. Why should you never talk to Pi?
- 4. I'm reading a book on anti-gravity. It's impossible to put down!
- 5. What do you call friends who love math?
- 6. Why did the student do multiplication problems on the floor?
- 7. Why was the math lecture so long?
- 8. Why did the math student break up with his calculator?
- 9. Why did the statistician go to the beach in the winter?
- 10. Why did the student put his ruler in the oven?

ANSWERS

- 1. Remove the S!
- 2. Both have 4 quarters
- 3. Because he'll go on forever!
- 5. Algebros
- 6. The teacher told him not to use tables!
- 7. The professor kept going off on a tangent.
- 8. It just didn't add up anymore.
- 9. To collect some polar data!
- 10. He wanted to measure hot degrees!

hami



N ELEMENTS OF ORDER 6 IN THE ALTERNATING GROUP OF DEGREE 9

(148795)(23), (13)(246985), (276)(39)(58), (184957)(23), (14)(236578), (19)(274583), (176958)(24), (18)(296437), (174269)(58), (15)(297643), (147832)(56), (195827)(34), (12)(389)(45), (183745) (69), (183)(27)(46), (175632)(48), (125836)(79), (169483)(27), (157639)(28), (234786)(59), (13)(29)(578), (159367)(28), (159674) (28), (274865)(39), (172896)(45), (125674)(38), (168435)(79), (137298)(56), (18)(296473), (15)(294863), (175246)(38), (194672)(38), (139287)(56), (198236)(47), (189327)(46), (132954)(78),(132789)(56), (23)(487)(56), (135829)(67), (16)(295783), (172) (35)(48), (123967)(45), (285347)(69), (15)(247938), (19)(246378),(157346)(28), (194328)(67), (125897)(36), (12)(398746), (264537) (89), (24)(398675), (179462)(58), (193742)(68), (18)(253467), (198642)(37), (13)(268975), (15)(248963), (346)(57)(89), (164972)(35), (176)(39)(58), (125483)(79), (163897)(25), (137289)(46), (16) (29)(375), (198264)(37), (19)(258374), (185792)(46), (14)(356)(79), (134857)(26), (29)(38)(467), (142359)(67), (175328)(46), (184592) (37), (125)(47)(89), (17)(296458), (15)(237946), (124978)(36), (19)(25)(364), (12)(398645), (149786)(35), (25)(374)(89), (376)(49)(58), (35)(49)(687), (17)(25)(469), (17)(289563), (295487)(36),(123957)(68), (182475)(36), (28)(367549), (194)(27)(58), (19) (243756), (168427)(39), (186792)(35), (24)(386)(59), (189745) (23), (239)(57)(68), (19)(38)(476), (15)(294738), (137589)(26), (276354)(89), (249568)(37), (16)(245738), (13)(26)(497), (173829)(56), (169)(28)(34), (179863)(25), (29)(346875), (182679)(45),(15)(243879), (19)(376584), (184692)(35), (176253)(49), (14) (235789), (17)(239845), (25)(369)(47), (15)(349768), (19)(25)(487),(184297)(56), (19)(248675), (298764)(35), (159672)(38), (285734) (69), (168743)(25), (186749)(23), (17)(24)(395), (163275)(49), (13)(278964), (139874)(56), (15)(49)(687), (235498)(67), (293485)(67), (183752)(49), (18)(253649), (125473)(89), (162783)(45), (129678)(45), (174956)(23), (192385)(47), (184237)(56), (198435) (26), (17)(289)(46), (132978)(45), (12)(347985), (143672)(89), (158936)(27), (135249)(68), (143289)(57), (126389)(57), (136254) (78), (128)(47)(59), (13)(286)(47), (137)(29)(68), (178463)(29),(176428)(39), (193245)(78), (193275)(48), (18)(27)(346), (283957) (46), (235748)(69), (19)(34)(678), (126395)(48), (19)(263854), (249683)(57), (135829)(46), (167289)(45), (18)(269753), (237845) (69), (173856)(29), (123698)(45), (243986)(57), (15)(239784), (182)(39)(57), (17)(284653), (197246)(35), (197)(38)(46), (159746)(28), (13)(265489), (189)(27)(34), (189265)(34), (239648)(57), (24) (385)(79), (126487)(59), (158296)(47), (253748)(69), (134259)(78), (24)(396875), (264598)(37), (189)(34)(67), (136)(59)(78), (13) (284967), (16)(297345), (158473)(26), (17)(26)(385), (192538)(46),(18)(263759), (17)(26)(598), (17)(235689), (15)(23)(687), (193824)(67), (28)(379)(56), (132795)(68), (13)(246598), (178563)(29), (178493)(56), (168247)(35), (159346)(27), (195478)(26), (162457)(38), (136985)(27), (145372)(89), (13)(245679), (29)(375)(46), (127368)(45), (154793)(68), (182653)(47), (274968)(35), (178534) (26), (142895)(67), (296583)(47), (18)(23)(469), (19)(347568), (28) (375469), (19)(48)(567), (146387)(25), (156234)(78), (129684)(57), (124586)(39), (169285)(47), (139685)(27), (167832)(59), (159238)(46), (147)(26)(58), (172864)(35), (23)(475698), (19)(247836)

hyperlynx

THE EDGE OF THE EDGE OF THE WORLD

Back before the sun decided it wanted to kill us all, some friends and I went on a walk to St. Jacobs Market. We went at it a bit lopsided though; instead of emerging by the market trail, we accidentally came to the edge of the city about a mile west of Weber Street. There wasn't any warning we had reached the edge; the suburbs kept going as usual until, suddenly, they stopped. Cornfield on one side, houses on the other. We stayed on the side of the houses. The renowned **mathNEWS** contributor, excellent friend, and Torontonian among our group, __init__, told us that for the longest time, they'd never realized that the city had an edge to it.

I think about that a lot.

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I'm going to pose you a question. Think long and hard before you respond. It's a subject of divisive, intense discourse among all walks of life: academics, politicians, students, scientists, family, and friends alike. Sit down before you read it. This is your last chance to turn back.

Still here?

Good.

Is there anything north of CLV?¹

Ĩ

Unlike __init__, I've never been a Torontonian. I remain convinced that Richmond Hill is a made-up place, and that Etobicoke is definitely just west Toronto. Worse, I'm actually not sure whether that second statement is controversial or not.

I grew up at the edge of the world. On the dividing line between urban infrastructure and the unassailable seas of verdant corn. But even then, just barely. The urban infrastructure was on the other side of an impassable river; we were the first outpost amid the cornfield. The edges of our world were on all sides, and easily found.

One of the most recent times I was home, I went for a walk to the furthest edge of the world. I'd discovered a long time back that there's a trail you can take beyond the border of the suburban outpost, walking to the furthest edge of our sister town. The trail ends at the sister town's westernmost highway. There's a gated driveway to someone's house on the other side, sure, but they wouldn't appreciate tourists. There's no footpaths to take beyond the westernmost highway. No escape.

In my mind, I've named it the edge of the edge of the world.

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I don't like letting important dates pass by uncelebrated. When the summer solstice came,² I left my place about thirty minutes before sunset, and went for a walk towards Columbia Lake. The skies put all their best sunsets at Columbia Lake. By the time I had reached Columbia and Westmount, though, Columbia Lake was in the opposite direction of the setting sun. I couldn't turn away from the sun. It was the solstice.

In an unparalleled act of bravery, I crossed the road to CLV. It's a nice area. Weirdly suburban. If it weren't for the Waterloobranded signs everywhere, you could almost forget you're walking around a university residence. In positive news, I didn't immediately die upon going north of Columbia. I'd never tested that before.

The sun did immediately set though.

I always thought CLV would be bigger. It's surprisingly small. If you're walking north and west to keep the cloud-covered sunset in view, you'll cross through it much faster than you expect. Soon the sun is down. Soon the solstice is over. Soon you're on the northern side of CLV.

They say the solstice is a time of new beginnings. On a planetary scale, it's the beginning of a new phase to the cycle. It's avoidable, and yet, undeniable.

"They is me. I don't think I've ever actually heard anyone say anything about the solstice. But if they did, I think I'd like them to call it a time of new beginnings. A time wherein you can look at things from a different angle. Turn the world in your hand, and see entire surfaces you'd never seen before.

We need those every once in a while.

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Last time I was home, I walked to the edge of the edge of the world. Then I crossed the road to the other side. There's a relief to it, a safety in the knowledge that you can get out. That the world exists on the other side. It's on the other side of the road; you'll return to it eventually, but for now, it's there, and you're here. Beyond the edge of the edge of the world.



PICTURED: THE EDGE OF THE EDGE OF THE WORLD

Roads continue past the edge of the edge of the world. Cars still drive, deer still run. If you keep walking, you can make it to the next town. To the next edge. Then the next.

If you travel beyond the edge of the edge of the world, you may soon find a copper palace on the far side of an open field. At the palace's rear lies a tower, a rectangular obelisk some eight stories high, with a foyer at its base shaped like an artisan-cut jewel. In the night, light streams out of its windows, bathing the neighbouring gardens in brilliant gold. From a distance, it is strikingly out of place. Acres of ponds and green fields, and at their furthest end, like it has been plucked from the sky and placed on Earth, an unmistakeable Camelot.

When the summer solstice is done, and you're holding the world in your hands, you have the opportunity to turn it, to look at your world from a different view. Sometimes you'll stop seeing old things. Sometimes you'll see them still, but in a different light. Sometimes, you'll be surprised by the new things you'll see.

In that moment, you may just feel the most beautiful feeling in the world:



When the **fuck** did that get there?

molasses

- Columbia Lake Village—the residence northwest of REV. West of MKV. West of V1. Really west of SLC. They actually decided to put students out there.
- 2. The summer solstice did not, in fact, come that day. I don't know how to read a calendar. It was the day before.



CARS, COOKIES, AND CAMPUS POLITICS

A NON-COMPREHENSIVE DISCUSSION

As a student, it's amazing how much owning a car changes things.

Before I had a car, I was unknowingly resigned to my grocery trips taking hours. I never really shopped at Vincenzo's or went out to eat anywhere besides the plaza. It was as if my legs—my sole transportation tool (besides the ION and buses and planes and trains and my friends' bikes and cars)—were shackled to campus.

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Somehow, it took me almost three years of university life before I realized I could... bake.

The world opens up when you realize you can bake. You can bake chocolate chip cookies, you can bake vanilla butterscotch cookies. You can even bake banana bread, if you remember to forget to eat your bananas for long enough. Baking makes people around you happy.

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99% of university campuses around the world are more liberal than the countries they are in.

This makes a lot of sense, but often I don't realize quite what this means until I'm confronted with something that goes against the world I live in, like my aunt's Facebook memes. Or perhaps a major conflict on the other side of the world.

For the first half year of the Israel-Hamas conflict, I generally caught the vibe that there wasn't a particular side that the people I knew, both on and off campus, were on. I personally am not very informed, nor partial.

But, I do have opinions on how people are responding to said conflict over here at a Canadian institution.

More specifically, I question why unrelated identities need to be brought so directly into the story, as is the case with *Queers for Palestine*. I understand that queer people are statistically more likely to be liberal and therefore involved in something like a campus encampment. However, I don't think bringing this part of our story into the fight for Palestinian rights is relevant. And by nature of not being relevant, it brings less argumentative power and more immaturity—bringing one's own biggest identity traits into contexts where they are out of place—and, with it, dilution of the real message.

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Also, I don't have a car.

A COMPREHENSIVE COMPREHENSIVE REVIEW OF SHAWARMA IN WATERLOO PT. 2

AMERICAN SHAWARMETHEUS 2: ECLECTIC BOOGALOO

J. Robert Oppenheimer:

There must be no barriers to freedom of inquiry. There is no place for dogma in [Shawarma Review] science. The [Shawarma Review] scientist is free, and must be free to ask any question, to doubt any assertion, to seek for any evidence, to correct any errors.

Last time on A comprehensive Comprehensive Review of Shawarma in Waterloo Pt. 1: American Shawarmetheus (mathNEWS 155.3), I set out to do a comprehensive aggregation of all shawarma opinions to ever grace the pages of mathNEWS. Thus far I have reviewed the Shawarma restaurants that have fallen under the categories of Lazeez, and Standalone Shawarma. In this 2nd part, I will conclude by describing the Forgettable Shawarma and the Mystical Chain Shawarma that exists in this great Regional Municipality.

FORGETTABLE SHAWARMA

Isidor Rabi:

They need us for who we are, so be yourself... only better.

Forgettable Shawarma locations were deemed as such because they accomplish what one seeks when wanting shawarma, but nothing more. These locales take up very little brain space amongst the public, and are commonly just forgotten about. Shawarma Hub, the shawarma restaurant within UW, is a textbook case of this type of location. Shawarma Hub is forgettable, with many in the **mathNEWS** community thinking of another location even when they're there. In mathNEWS 155.0, the molasses stated, "Some would argue that shawarma is the peak UW experience. Specifically, the experience of waiting in line at Shawarma Hub, zoning out, and finding yourself having already ordered Lazeez on the rocks, 10 lines." However, that does not necessarily mean it is bad, and can be an important resource when walking over the ION tracks to better options seems too difficult. "One of my go-to options," said Dollar Store Person in 154.5, "the wraps are very balanced in acidity, umami and carbs, especially the Falafel Wrap; delicious and filling veg option."

Another strong contender is iPotato, what many would simply call the third option at the plaza. In **mathNEWS** 155.1 *epic_waterman* agreed, giving iPotato a 4.5/10, just behind Lazeez at 5/10, and remarked no further on the matter. Other than that, despite its proximity to UW, no one has cared to write about this place (other than Prof. Dan Brown in **mathNEWS** 149.1, who simply said "I like iPotato"). Writer *OnTheRocksFacts* had many iPotato opinions. "I thought the food was pretty good, and the portions were large enough to have for breakfast the next day, but the name iPotato is inherently forgettable." "Much like Ace Shawarma [in downtown Kitchener], when you're drunk at 2am, shawarma is shawarma."

Osmow's has never been mentioned in **mathNEWS**. I have eaten here, I have no memory of it. When I asked my panel of current writers, none had ever been there. "But... it is beside Phil's, and no other shawarma place can say that," said *OnTheRocksFacts*, showing it too is there to fill its intended purpose and nothing more.

MYSTICAL CHAIN SHAWARMA

Lewis Strauss:

Amateurs seek the sun. Get eaten. Power stays in the shadows.

This is the last grouping of Shawarma restaurants I will be reviewing. Mythical Chain Shawarma may not be as good as standalone shawarma, but it has succeeded where forgettable shawarma has failed. It lives in the folk tales of many **mathNEWS** students for its quality, its ***unique personality***, or both. The most revered chain shawarma location in the greater plaza area is of course Shawerma Plus. Its relative quality to the other shawarma places in proximity to campus has set it apart in the eyes of **mathNEWS** writers. In 147.3 *methNEWS*¹ stated that "I am qualified to say it is scientifically proven that no sane person would ever choose to eat in an inferior plaza restaurant when Shawerma Plus is just around the corner." In 150.0 *sc* concurred, saying that "this is the best shawarma in the Plaza (cope harder Lazeez fans)." They suggest the Chicken Shawarma Wrap, English style, for the optimal experience.

Another Mythical Chain Shawarma location of note is of course Tahini's. I was taken by their "Blueberry Flame Shawarma," but this chain has achieved mythical status for another reason. As explored in a wonderful full-length article by *Molasses* in 153.4, Tahini's puts all of their net profits into Bitcoin, which has allowed them to expand their stores from 3 to 44 in 4 years. *Molasses* concluded their article by stating "Tahini's is what happens when you give r/wallstreetbets complete ownership of a restaurant chain. It is a monument to spite. It is a testament to 'fuck it, we ball' as one of the strongest business strategies ever conceived. They have pretty good shawarma, too." What more could convince you to go there?

I would also like to quickly note the Paramount Fine Foods in SCH that is now a Shawarma Hub, which *Pomegranate Molasses* praised for its excellent quality before its untimely demise. I would also like to mention the Shelby's in my hometown, which gave me a free churro for a positive google review.

J. Robert Oppenheimer:

Albert? When I came to you with those [Comprehensive Shawarma Reviews] we thought we might start a chain reaction that would destroy the entire world...

Albert Einstein: I remember it well. What of it?

J. Robert Oppenheimer: I believe we did.

With that, this comprehensive comprehensive shawarma review concludes. Hopefully it covers the breadth and width of how shawarma has existed in the mathNEWS universe. Shawarma was first mentioned in **mathNEWS** relatively recently (142.6), but I believe it has already become a crucial part of our world here. Hopefully much more Shawarma Content can be created, which can then be further aggregated into an even more comprehensive review by someone I am sure will be more qualified. This pair of articles are indebted to the many souls who have traveled to the various "Shawarma Hubs" within this great Regional Municipality and brought your excellent reviews to the masses, which allowed me to make this list. Many thanks to epic_waterman, this_is_sarcasm, methNEWS, UGO II Media, sc, Molasses, President Vivek Goel, Dollar Store Person, Shawarmaphfia, OnTheRocksFacts, Pita Love Math, and (Pomegranate) Molasses. Science stands on the shoulders of giants.

Lazeez Nootbaar

 "Don't forget to use code 'Meth' at checkout to cause massive confusion and awkwardness with whoever's taking your order"—methNEWS, mathNEWS 147.0

HELP ME WITH MY MUSICAL VARIETY

I've noticed that I pretty much just listen to the same small selection of artists these days (blame my band teacher) and so I would like to diversify my portfolio. If you have any suggestions for songs, albums, or artists for me to listen to, please try one of the following options for telling me:

- finding me in person
- discord
- email
- mail
- writing a response article
- yelling very loudly
- message in a bottle
- carrier pigeon
- skywriting
- HOA letter
- legal memorandum/court order
- telepathy
- writing it directly in this article (only works for editors though) [Editor's Note: try "Past Lives" by BØRNS]

N BEHAVIORS IN THE COMMUNAL WORK SHOWERS

So anyways, as we all normally do, I spent a decent amount of time observing my coworkers as we showered before work every day. And you know, some people's fight or flight response really kicks in when they're forced to shower two kilometers underground with no escape. Here are some of the interesting behaviors I saw during my time.

The Wizard: I'll start with the first archetype, the person who is either so embarrassed or so done with people's shit that they seem to teleport through the showers. You'll see this person outside, then suddenly they appear on the other side, hair not even wet. I'm sure they actually did the routine, since it was required, but it sure as hell doesn't seem like it.

The Lurker: You just left the shower, slightly embarrassed because this is the first time you're experiencing this. You turn to your right and grab a towel. As you turn back, jumpscare! He's there. You don't want to mention anything because you're pretty sure it's nothing, but you sometimes wonder how this person can sneak up so easily, even in the nude.

The Racecar Driver: This person always has to be the first through the showers and into the lab. If they aren't, you will be treated to a twenty minute lecture about safety, and then additional passive aggressive comments throughout the day. However, there is a cheat code. If you are second out of the showers, you can get dressed while they put on their ankle brace and sneak into the lab first without them noticing.

The Queer Person: This person is obviously uncomfortable, because this lab literally **does not accommodate them**. Cutting-edge science, but last century's ideas, apparently.

The Aggressively Naked: Yeah, I know that everyone is naked here, but this person is obviously *more* naked than everyone else. Nobody can tell why; maybe its the stretching, or perhaps the loud conversations they keep trying to have with other people. Anyways, you'll do best to avoid the showers when they're there, unless you're into that (but this is work, and that would be weird).

The Moist One: You know, there are people here whose job it is to do cleaning, but that doesn't mean you have to be a dick. Three towels? Seriously?

The Communal Underwear Searcher: We all have to wear the communal underwear (obviously, duh), but this person takes it slightly too far. I'm not sure if this person was looking for their favorite pair of large boxers, or if they thought the cleanest underwear must surely be at the bottom of the bin, but now I have to wear a pair they've had their hands all over. We just showered, but still, gross.

IN CASE OF BREAKUP





mathNEWS 155.4





KITCHENER GO TRAIN PROGRESS REPORT PART 3

Welcome back! If you've been following along, we're taking the train from Kitchener to Union, and we just crossed the border from not-Toronto into Toronto. There are quite a few projects that are either happening, going to happen, or maybe going to happen within these city limits, so let's take a look.

9-12. NEW STATIONS

Ever wanted to go somewhere in Toronto that wasn't Etobicoke North, Weston, Bloor or Union? Well, you're in luck, because there are not one, not two, not five, not sixteen, but *four* new stations planned to be built. They'll be at:

- Woodbine Racetrack (9)
- Mount Dennis (Eglinton and Weston) (10)
- St. Clair and Old Weston (11)
- King and Shaw (near Liberty Village) (12)

If you've taken the Kitchener line recently, you might have noticed that the Mount Dennis station looks basically finished already. That's because it is, but it was built as part of the Eglinton Crosstown LRT project as an important transfer to that line, so it'll probably open whenever Eglinton opens. Place your bets on when *that* will be.

What else? Oh yeah: the Woodbine Racetrack station is planned to be a transfer with the UP Express, so you might have an easier train journey from Kitchener to Pearson Airport sometime in your future. Pretty cool.

13. MORE TRACKS

Think we were done adding tracks? Think again.

There aren't any freight trains on these tracks anymore, and there are already 3 tracks for most of the rest of the way. But what if there were 4? Of course, this isn't as important as adding tracks to the part of the line we've covered already, but it'll be far from useless. The UP Express, another train line, runs on these same tracks, and there are local and express service patterns planned for the Kitchener line, so it'll be good to have lots of tracks for more flexibility.

The fourth track is already under construction, and you can see it being built right now at Bloor station, among other places.

14. NEW TUNNELS UNDER THE HIGHWAY

For some reason, the Kitchener line just happens to run under the interchange of Highways 401 and 409. The existing tunnel isn't wide enough to carry a fourth track, so they're digging a new one, and moving one of the old tracks into it to give the other tracks some more breathing room.

Actually, I should say they *dug* a new one. Construction wrapped up in 2020, but they haven't built the new tracks, so you can't go through them yet. The main obstacle is Etobicoke North station, which is in the way, and which they'll have to demolish before building those new tracks. Maybe they'll build a new one when they're done, but at least the new station at Woodbine Racetrack will be pretty close.

15. SUBWAY CONNECTION AT BLOOR

Have you ever gotten off the train at Bloor and wanted to transfer to the subway station next door? You have to exit the GO station's underground concourse into a nondescript FreshCo parking lot, jaywalk across Dundas Street, and dodge streetcars entering the streetcar loop before walking into the subway station and going back downstairs. It's not fun. Hey, did you know that the platforms for the subway station are *literally right underneath the GO platforms*? Why don't they, idk, build a staircase to them or something?

Well, that's happening now. I don't know why it didn't happen when one of these stations was built.



mathNEWS 155.4

16. WHAT IF IT DIDN'T TAKE 5 MINUTES TO GO FROM SLIGHTLY WEST OF UNION STATION TO UNION STATION

See that mess of tracks that I tried to draw near Union Station? The note I put next to it says there's way more of them, and it's not wrong: by the time we're at the platforms, there are 11 parallel tracks. That's not the issue though. The corridor is designed for maximum flexibility: the goal is for any train to be able to enter on any track and exit on any track, and for as many trains as possible to be able to do this at the same time. This is done through a ladder of track connections using double-slip switches — a type of switch that allows trains to both enter and exit in two directions, rather than the Y shape of a typical switch, at the expense of speed—and is controlled in a couple of 1930s buildings featuring an intricate electromechanical contraption of levers and relays that was an absolute state-of-the-art system for back then, and still is as long as you ignore everything that's happened since computers were invented.

If you look at other central train stations around the world, some of them have switched to computers, of course, but most of them also have far fewer connections between tracks. Flexibility is nice, but having trains go fast is even nicer.

There's a huge plan underway to revamp Union Station and its surrounding rail corridor, with the goal to reduce the corridor's complexity, but also to widen some of the platforms because every time I'm on one of them I feel like I can't pass someone else walking the other direction without falling off the edge. The track simplification process is beginning with the Lakeshore line: a new platform and set of tracks are being built on the station's south end that aren't connected at all to that mess of double-slip switches. Eventually, every GO line will have its own set of tracks and platforms at Union, instead of each train having to find a free platform and make its way through the web of switches every time it arrives.

There's a lot involved in this project, even including a new passenger concourse near Scotiabank Arena. If you want to check it out, there's always construction happening at Union Station: you'll just have to guess which of the many projects they're actually working on when you look.

Anyway, we're at Union, you can go home now. The subway is that way and then to your right. Or, if you want, you can stay here and listen to me speculate about electric trains. They're happening, by the way! I don't think there are concrete plans we can look at, but there are signed contracts and everything! Wait, shit, the word limit police are here—

derailED

Slight correction to part 2: the track at Georgetown is not "technically a siding". It's not main track, but apparently "siding" isn't a catch-all term for non-main track like I thought it was. Also, it does have signals, but they were set up to be part of a yard, so they know so little about what's going on that all they can really signal is "go slow and watch out."

MY MIDTERM SCHEDULE I LIVE BUT PLEASE HELP ME OH GOD

For let it be known that the Fates be cruel when it comes to some matters, and one such matter uncomparably unjust in its execution may perchance be the midterm distribution that I was so generously handed this term. One may choose to argue that it may be nice to have most of one's examinations compressed into one work week; but I beg to differ, for I've felt extreme dispassion in preparing the said week due to a plethora of reasons and dread, and now I shall dread the coming week when soon the results may be released.

If you, oh reader, do not feel my lament through my words, perchance a tabulation shall aid you. For we first have what I affectionately call the tails:

- On May 30, a STAT 231 midterm
- On July 16, another STAT 231 midterm

And thy may say, o, that's not too bad, right? But one look again, and mayhaps you shall agree with me:

- On June 18 (T), a MATH 237 midterm
- On June 19 (W), a CO 250 midterm
- On June 22 (Sat), a BU 231 (Business Law) midterm
- On June 23 (Sun), a BU 247 (Managerial Accounting) midterm
- On June 23 (Sun), a EC 260 (Managerial Microeconomics) midterm

And you shall tremor in your boots, as I once did—for not only are there midterms on my weekends, an artefact of having Laurier genes in my academic blood; but said midterms are compressed into a quite concerning six days.

And I did live, but at what cost? I'm scared about my midterms. I feel unironically I might fail some of these pls help oh gods the horrors aaa

P.S. In terms of STAT 231, we would call my midterm distribution leptokurtic, although this data is time-based and the notion of kurtosis doesn't readily apply; I shall choose to use this terminology to describe it anyway, so may the gods of statistics smite me.

andoiii

PERCEPTIONS

People's opinions of me dictate my life. I wish I was unbothered but I am not.

When someone says something negative about me, it sticks to me like gum in hair. The more you think about it, the worse it gets.

I SAW I SAW THE TV GLOW

Contains spoilers for **I Saw the TV Glow** (2024) and discussions of suicide and queerphobia.

I'm not much of a movies person, so when I had to choose a movie to watch last night, I just went with the first thing that came to mind. I had come across a tweet last week about how great of a trans movie *I Saw the TV Glow* was, and I was expecting just some horror movie (I don't hate horror but I'm not really into it and I can't really judge what makes good horror movies good tbh) with good trans representation, not a movie *about* being trans that was about to completely eviscerate me.

I Saw the TV Glow is a 2024 horror film written and directed by Jane Schoenbrun. Two teenagers, "Maddy" and "Owen," bond over their love of a TV show, *The Pink Opaque*. The show is creepy and weird, and for the first half of the movie it seemed like something supernatural was going to leak from the show into real life. Instead, it was more intimate than that. The show starts becoming a part of their identities as "Maddy" and "Owen" discover their queer identities.

The metaphor of parallels between death and transition really got to me, and I'm sure it affected me more in my current mental state than it would have months ago. You die either way. If you don't want to lose your life, you lose your soul.

Perhaps I'm fortunate. I related more to "Maddy"/"Tara" than "Owen." I related more to leaving behind a fire and running off to Phoenix, and changing my name, to screaming and clawing my way out of a coffin. I relate to that more than staying home and getting a job, starting a family that I love (I have to love), while the glow in my chest threatens to rip out of me. But that could be me; I can't relate to it but I could see myself in it. Because I get it. How could you do all of that without dying? To die for a fantasy, something so idealistic, something you might never be able to achieve. But my Pink Opaque taught me to face death with honor and grace, for something so ephemeral that it's worth it even if you can't experience it in life.

No more of the "back then"s and "what if"s, I am like "Tara" now. What did she think when "Owen" was grounded the next day, or when they ran home from the field? What is sleepaway camp like without Isabel? And how did the light look, standing in the grocery store?

Since the movie, I've been thinking about a story the pastor told at my friend's funeral. It was Grade 12, graduation was just around the corner. I was going to survive, I was going to get out and then I could die a quiet death. I wished she could have survived a few months longer, that a few months later she could stop suffocating. She got out too, but oh, people couldn't understand. Dragonflies lay their eggs underwater, the pastor said. The eggs all look up to the surface and wonder what's out there, and they make a pact that whoever hatches first would come back and tell the others. But once the first one does, it discovers that not only could it not go back, how could it even describe all this to its siblings? How could they conceive of it all without seeing it themselves? I'm not Christian, and I don't really believe in heaven or hell, but something about that story stayed with me.

But what if an egg didn't have anyone to make the pact with? What if a singular egg was laid without the instinct, without the knowledge that it was supposed to hatch to the surface? As it sits in the mud, starting to rot, would it know to look up? And if a dragonfly notices it below the shimmers of the ripples, how will they know it's necessary to send a message?

I can only keep flying high, I guess, because that's what I was born to do. I hope that the warmth of the sun on my wings will reflect a ray underwater sometimes.

RapidEyeMovement

LIST OF THINGS THAT ARE TRANS METAPHORS

I NEEDED SOMETHING LIGHTHEARTED AFTER THE TV GLOW ARTICLE

SUNSETS

You transition from being above the horizon to being below the horizon. QED. Also pretty colors

T INJECTION

Ummm. squirting :)

OOPS! ALL OLIVES PIZZA

Oops! All Estrogen

347 MIDTERM

Disappointing your parents

A BUNCH OF GREEN ONIONS

You know what. I'm gonna do something wholesome here. Something something community. Something something being able to grow after being put in a new environment

RapidEyeMovement

THE ARIZONA HIGHER ROLLER CHAMPIONSHIP

A SHORTER STORY

This story begins halfway through the final hand of our hero's Arizona High Roller Championship.

 $\blacklozenge \blacklozenge \blacklozenge$

He straightens up, takes a deep breath, and heads out to the table.

Something feels off. His red Kings are face-up, there's at least a few mil' on the table, and the Cow's staring him down, angrily. He reads the community cards.

Ten of Hearts. Jack of Hearts. Queen of Hearts. On the turn, the King of Clubs.

So he has a set; but on the river sits the King of Spades. He hit quads! He looks up around the table again, shivering as a tingling runs down his spine.

In front of Jack, the Ace of Clubs. So he made the royals on the turn, but it came to nothing against quad Kings. In front of The Professor, the Ace of Spades, another top straight. Yikes, that explains the huge pot; he's almost starting to feel bad for these guys. He turns his attention to The Kid.

He's sitting rigid, a tear rolling down his cheek. He had the pocket rockets, in Diamonds and Hearts.

If either community King had been Hearts, The Kid would've made a Royal Flush, taking home over three mil' in earnings. He would've brought the championship trophy along with him, and his name would be written in the Poker Hall of Fame as one of the all-time greats.

But there it was, the King of Hearts sitting in front of himself. With every other player holding a straight, by what sick twist of fate was he meant to be dealt those two, red Kings?

He glanced to his right. The Devil had been staring him down; he gestured to The Kid, whose head was buried deep in his hands. By now, there was a river of tears flowing from the poor guy, all the way down to those community Kings.

The Kid raised his head, and locked eyes with him.

* * *

Something was off when he returned from the washroom, and he thought it had just been the wild hands. But it wasn't that. Man, how did he not notice this before? Looking into The Kid's eyes, he saw it now.

That kid must have been no older than one, maybe two years old.

As the tears on the table kept running, a little voice from within questioned him: Who could take over three million dollars from a two-year-old?

Not me, he thought. I might not be the best player, or the most loyal son. I might not always play by the rules, or make the wisest decisions...

Okay no, definitely not giving the baby the winnings. So I guess there's only one solution to this problem.

He walked over to the baby, crouched down, and lifted his shirt. Then he started breastfeeding him, and the crying stopped.

no pun indented

REFLECTIONS AFTER TALKING TO FIRST-YEARS

Back when I was a first-year ball of anxiety, the upper years I sought advice from had an air of certainty when they reassured me.

"You will find a job."

"You are in the right place."

"You are good enough."

Now, as an upper-year ball of apathy, when I speak to first-years and newly admitted students, I can't offer the same confidence. My assurances are riddled with qualifiers and compromise. "You are in the right place *as long as* you can tolerate and afford this period of uncertainty and others that may occasionally follow."

"You are good enough, *but* it can be really hard to compete with so many other worthy people when jobs are scarce and the applicant market is saturated. You should not take such difficulties as an indicator of your unworthiness. Metrics by which companies select candidates cannot possibly capture your true value or the subtleties of your unique experiences."

Maybe it's always been bad and my upper-years were just nicer than me; maybe the economy is just really bad right now. All I know for sure is that the bars haven't gotten any lower.

"You will find a job *if* the economy permits."

THE DEFTONES ALBUM THAT CHANGED MY LIFE

Nü metal is a term used to describe a subgenre of metal that is, essentially, a myriad of heavy metal, grunge, and hip-hop. Considering I'm a longtime fan of all these genres, from Alice in Chains to N.W.A, it's no wonder that nü metal holds such a special place in my heart. You've likely heard of most of the pioneers of the genre: KoRn, Slipknot, Limp Bizkit, and Linkin Park—to name a few. Among these bands stands Deftones, responsible for the horniest-sounding nü metal, but also the most beautiful.

Lead by vocalist Chino Moreno, the Sacramento band's sound can't be described in any way other than oxymoron. Grainy, yet melodic. Loud, yet mellow. There's no better way to listen to Deftones than imagining yourself driving on a dark and empty road... your car's windows down, cold wind piercing through your skin as the music overpowers the engine's roar—aside from, of course, actually doing that.

One of the most special things about Deftones is their ability to put together an album that is so cohesive that it feels incomplete skipping even a single song. Each of their works opens up a time capsule into a dark point in the members' lives, taking you back to your own turmoils. My favourite album of theirs is one that I feel is now under-appreciated; perhaps that's what makes it so special.

Saturday Night Wrist was released on October 31st, 2006, debuting at No. 10 on the U.S. Billboards chart. The album was a low point for the childhood friends as they struggled with personal hardships and unravelling relationships with each other. Chino had been suffering from addictions and a failing marriage, which creeps its way into his lyricism. He has even gone as far as to say it's his least favourite album because of the context surrounding it.

The name and album cover alone perfectly describe the journey you're about to embark on. "Saturday Night Wrist" refers to... well... what you'd expect for someone at a low point in their life. A cold and lonely weekend, full of euphoria and shame. This is emphasized in the album's art; a gritty collage of stills that represent a dirty euphoria. Temporary happiness that is closed in on by looming depression, scratching your skin in disgust.

Hole in the Earth opens the doors to our journey, as we hear the scratches of a grainy guitar almost tuning into the album. We're hit with the drums, bass, and vocals all at once, like a sudden wind. The music mellows down for Chino to deliver his opening message:

Can you explain to me how / You're so evil, how? It's too late for me now / There's a hole in the Earth

The percussion and strings almost dance in harmony between lyrics, delivering a euphoric, yet melancholy experience that sets the tone for the album. As the song nears its end, the guitar gets heavier, almost as if that car we were imagining ourselves in earlier is speeding down an unfamiliar road—and suddenly, silence.

Rapture turns the previous track's hurt into anger—a montage of emotional ups and downs we experience on this drive. Is it from a conversation prior to getting in the car? A loss of power? The vocals can hardly keep up with our thoughts:

You said you swear — / You said I don't want it again — / Instead you just waste — / Waste my time!

I can't — / I can't feel like — / I can't diffuse — / It feels like...

The song's eerie end takes us to *Beware*, my personal favourite. At this stage of the drive, we have come to terms with our feelings, even if we aren't proud of them. Maybe this mellow track is some form of acceptance for us:

Do you like the way the water tastes? / It's like gunfire / You knew, but you could never say

Beware, the water

Distortion. A clock? A woman breathing? You can't tell. You snap back into focus as *Cherry Waves* illuminates the car's sound system. You tried to accept the past, you even thought you had come to terms with it, but it's just not that easy:

The waves suck you in and you drown / If like, you should sink down beneath / I'll swim down / Would you?

We hear that girl breathing again. Is she laughing? Crying? What happened before this drive?

Mein features Serj Tankian from System of a Down, as the two vocalists try to dig us out of the grave of thoughts we've trapped ourselves into. Perhaps we haven't come to terms with anything after all—yet.

That way I'll always stay away from you / The universe breaking us down

We take a brief intermission for *U,U,D,D,L,R,L,R,A,B,Select, Start*—the Konami code. Sans vocals, we hear a beautiful cacophony of instruments crying for our longing for peace. To just be kids again.

Xerces breaks Chino's silence as we dig through our faults and attempt to correct the mistakes leading up to this drive. We feel shame.

I don't know / I could stay or leave / Either way

We explore our past more with *Rats!Rats!Rats!* As we come to terms with our woes, we can't help but think: is that girl behind this?

mathNEWS 155.4

Decide, decide! / Is this it, is it just fine?

Pink Cellphone breaks her silence. To me, she represents temptation—shaming us for having acted on past desires while Chino confronts her for us. A lot of fans don't like this track—I don't like the second half either. But it does represent that feeling of disgust all too well.

I can't stop the sound / I can't stop you

We emerge from the hole as our car whizzes through a tunnel. *Combat* and *Kimdracula* take us back to whatever conflict led up to this drive. We know our place as we address her—or it. *Combat* is our final plea to her:

This time, I think you pointed right at you / Whose side are you on?

But in *Kimdracula*, we attempt to forget her as the end of the road looms:

I really wish these snakes were your arms / I really wish you could make up your mind

Rivière. We start seeing familiar streets and smell freshwatered grass after a rainy night. A sense of clarity fills the cabin as we turn into a neighbourhood. Maybe we have already left the car. Maybe this song is told decades after, as we recall the story of our drive one last time.

She haunts the road / She waits for a new face / Face

Usman!

A LATE REPORT ON THE M&M VENDING MACHINES BECAUSE SQUIDKID'S REPLY GAME IS ABYSMAL

On March 17, I sat with some comrades at one in the morning, forming an introspective, professional message to SquidKid47. Now, you may be familiar with SquidKid47. They were the centre of international fame when their discovery of facial recognition on an atrociously yellow vending machine nearly blinded them by its ugliness. This noticeable piss yellow would prove to be the fateful downfall of every M&M vending machine on campus (that, may I note, did not even sell M&Ms, despite the alluring, sexy M&M characterizations on the sides) as it caught the attention of the formidable SquidKid47.

In total seriousness, I turned on reporting mode. I was no longer the interviewee, shaking before a WaterlooWorks shitty zoom call. No, the interviewee had become the interviewer, and I formed the following inquisitive and curious message.

Me: hi squidkid. fellow waterloo student. may I ask for any comments on the m&m machine scandal? We deeply respect and admire the work you did for the community and as many **mathNEWS** miscellaneous writers would like to know why you were drawn to the m&m machine in the first place? does this have anything to do with tucker carlson. thank you deeply for your input. we are sober

u/SquidKid47: oh god i just saw this. fuck big m&m, i always had something against the machines because i thought they were just flashy and weird to have in a school. i went by that specific machine bc something made me take a different route home through the school that night, then saw an error and went up to look because that's fucking embarrassing for the machine. fuck tucker carlson i hope he cries every night knowing his beloved sexy candy is foreign spyware

They say everything happens for a reason. Thank you, SquidKid47. Thank you. I must cut my comments short as the Stanley Cup final begins in two minutes. Oilers in 7. later nerds

nike

ISSN 0705-0410 uw's bastion of erudite thought since 1973

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SCREAM INTO THE VOID: A REFLECTION

I've been trying to think of full-length article ideas on and off since I submitted last issue's article, but I've been finding it even more difficult than usual. I have a theory on why this is (although whether this theory holds up to the scientific definition of the word is up for debate). Once you've shared your deepest trauma with the world, where do you go from there? I suppose the only way to go is up.

Up towards what, I don't know yet. But that's part of the process, I think. Learning as you go along, applying what you've learned from past experiences to experiences in the present. Wait, why does this sound familiar... oh yeah, it's what every adult will tell you to do. Professors, co-op advisors, therapists, parents,¹ even random strangers on the internet.²

In all honesty, it's probably pretty good advice in a vacuum. But we don't live in a vacuum, do we?³ We live in a constantlychanging world and like it or not, we do have to share it with other people. And other people can be tricky. Something that one person really cares about can be something that someone else hates. Hence why learning as you go and applying past experiences in the present is not always the most helpful way to go about things. Sure, it can serve as a good guideline and starting point, but following too close to it can just lead you in circles back to where you started.

And that's why my advice, at least for now, after letting the events that shaped my life the most out onto paper for the whole world to see, is to let your emotions out. It doesn't matter whether it's in the form of venting to a friend, crying into a pillow, or writing a **mathNEWS** article.^{4,5}

If you can't, don't want to, or aren't ready to do any of those things, try to at least acknowledge the emotions that whatever it is brought up for you. Acknowledgement is the first step to accepting what happened and working to move past it. It won't always feel good in the moment; I know it for sure didn't for me. When looking back, however, you'll appreciate having taken a moment or two to recognize and understand how it has affected you. Even if you haven't moved past it or are still trying to figure out the next step beyond that, it helps a lot to be able to tell for yourself.

I really hope that this helps someone out there who is struggling. Even if it's just one person out of however many read this article and my previous one, then it will have been worth it to me to share my story. Even if it doesn't help anyone, and it was truly a scream into the void, I still think it will have been worth it to me. Because if there's one thing I've learned from this whole ordeal, it's that keeping things hidden away never makes the problem disappear. The only way to truly be set free is to acknowledge what happened, accept that you can't change the past, and let go. From now on, that will be my path towards the future, a future I can accept no matter what happens as long as I stay true to myself and my values. A note from the author:

Wow, I did not intend on this becoming a vague self-help guide. I originally just wanted to write about how I was feeling after writing down everything that has been plaguing me the past 5 years. My laptop died in the middle of me writing this last night, and I fell asleep soon afterwards so I don't quite recall what I was originally planning to say. Regardless, to anyone still reading this, I want you to know that there are people out there who can help. I know that the university offers counselling services, although I've heard that the wait list is extensive.⁶ There are many other services available as well, both in-person and online.

The only company I'd advise against is BetterHelp and its subsidiaries such as Pride Counselling. I don't have the time, space, or energy to get into it here, but there are plenty of online articles and videos on YouTube explaining everything wrong with this company. Otherwise, I'd recommend as always to do your research before signing up for things, but don't let that get in the way of getting yourself the help you need.

I think that's all I want to say on this topic for now. Maybe I'll make an update article in a year's time or something, we'll see. Anyway, bye for now and enjoy the rest of your **mathNEWS**-ing!

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An additional note from the author: note

Sexy_Software_Babe

- I haven't actually tested this one myself yet I'm willing to tell the whole world about my deepest trauma but I have this completely irrational fear that if I tell them specifically they'll judge me or blame me or something. This is not a rational fear and I recognize that, they've been nothing but caring and supportive towards me, but that emotional fear centre lizard brain can be overwhelmingly strong.
- "Funny" story about that last one, actually I made posts in r/relationships and r/relationship_advice asking about how to deal with that breakup but changed my age in the post to be 16 instead of 14 because I was still in delusion land thinking no this is okay, it's all of the adults who are wrong.
- 3. I think there's something in science that says we'd all be not-living if we were in a vacuum. Something to do with lack of pressure and not having """"oxygen""" to breathe, whatever *that* means.
- 4. I've tried all of these over the past few years.
- 5. Even if you aren't massively traumatized, you should still write for **mathNEWS**, it's fun, I promise.
- 6. I want to make it very clear that this is NOT me siding with those that want to privatize healthcare in Ontario in order to reduce wait times. That won't benefit anyone, except for those that make money off of refusing life-saving care to people in need cough Doug Ford's wife running a for-profit nursing company cough.

ANDROID: NETRUNNER: MY FAVOURITE CARD GAME

You know, it is funny, when I told people I had written an article for **mathNEWS** universally the response was "Was it about Netrunner?" It was not, but no one was surprised to learn it was about Spirit Island (my favourite board game). So here I am, doing the same kind of article I did for that game for this one: Android: Netrunner, the cyberpunk asymmetric living card game. So here is the drill, I'm going to tell you about the game and then start rattling off the things I like about it.

A game of Netrunner pits a multinational megacorporation (the corp) against a cyberpunk hacker (the runner). The corp "just" wants to go about their business, completing their major projects (called agendas), and the runner wants to get in and steal those agendas. To do that, they must run on the corp's servers, breaking through defensive ice and breaching the server within.

Now before the game even starts both players have to build a deck of cards. Each side (corp and runner) has their own pool of cards to draw from, that defines who they are in this world and all the tools they have at their disposal.

And this seems like a good time to talk about the first thing I like about this game: the asymmetry. Not only the two sides use completely different card pools, but use them in different ways and have different objectives. On the surface, the runner attacks, and the corp defends its agendas and other venerable assets. But on the other hand, the runner can die to digital traps frying their brain or an assassin tracking them down. This is actually a secondary win condition for the corp: get rid of the runner entirely. And then, while the runner plays cards face up, the corp plays them face down until they are used.

That gets into the next thing I enjoy about this game: mind games. Pulling of a crazy bluff as the corp feels masterful; and seeing through a bluff as the runner feels pretty good too.

But the mechanical core of the game is centered around money, what else is in this setting? The corp might start advertising its products to help pay for a specialized server farm for one of their servers. Meanwhile, the runner might work a day job (or rob the corp) to pay for some new hardware to help their cyberpunk hacking rig.

This is a pretty standard fare; it is all very flavourful for the setting but the only mechanical twist to call out is that money lasts between turns. It gives the game an ebb and flow as you push forward and then rebuild, hoping your opponent doesn't take advantage of your down time; or you are the one trying to force the other player to overreach and take advantage of it. On the whole, I've found it to be one of the most interactive card games out there.

And now it is time to turn to the things around the game. I would to start by pointing to something that shows how beloved this game is by the wider community; that is, that it has lived 3 times. First as Netrunner, published in 1996 by Wizards of the Coast. Then as Android: Netrunner in 2012 by Fantasy Flight Games. Finally, Compatible with Netrunner products have been released by Null Signal Games for a half decade now.

And even if you aren't impressed by that, it does lead into another thing I like about the game. You see, Null Signal Games is an all-volunteer non-profit and that makes such a difference. The game is super accessible — the online jinteki. net player is free and gives you all the cards — and the release cycle does not care about quarterly profits. Cards are coming out slower than before, but in exchange they tend to be higher quality.

The setting of Netrunner is fairly standard cyberpunk fare. It has the slightly unique addition of androids (made to purpose clones and the brain image based robot bioroids) and a space elevator. It has that central city that the setting is centered around — this one is called New Angeles — but I'd say the most interesting thing it does is it doesn't stay there. What does life look like in Brazil, in the Arctic Circle or *on the moon*! We have visited them all.

As for its themes, it does touch on some important matters and on the whole handles them very well. But it also leaves you to fill in some gaps on your own: there are dozens of cards in each release, but each has a name, image and maybe a line of text. Back that up with maybe half a dozen short stories and you don't have a lot of material to cover a lot of ground. Oh, right, things I like; well if you do fill in the gaps there is a lot of interesting discussion. For example, we get very little discussion of Sebastião's daily life, but just looking at his card art might make you ask: Why, in this world of cool cybernetic limbs, is he in a wheelchair?

Also vibes, it's got great vibes. It is hard to convey in just text, but I enjoy them.

And the community is great too. I mean lots of games have good communities, but Netrunner's is one of the warmest, most helpful and joyful ones I've seen. Especially for a (still very) competitive game, you hear stories about people at major tournaments making the spectators laugh even as they struggle to win the finals.

And that is all the things I like about Netrunner that I can fit into an article. Although this isn't quite a recommendation, if it sounds interesting, you can look up Null Signal Games and Green Level Clearance to find out more. But you don't have to; it may not be for your, but for me, it is still my favourite card game.



Glec

24 HOURS IN UWATERLOO — 3 PM TO 8 PM

3:00 PM

Time to get to work.

Damian has been struggling over these equations forever now. No one knows he's in Engineering, but even if they did, they probably wouldn't care. But that's not what he needs to think about right now. He has five assignments, two due tomorrow, for six courses. Everything aches from how fast he's been doing everything.

His head hurts. He can't deal with all of this. It's like something inside him is threatening to snap as he tabs from program to program, furiously types and calculates and writes, something's going to snap. It's too loud. The voices are too grating. Even the crunch of the samosa the guy in the booth next to him made is too loud.

He can't be here. Sighing, he packs his things up, making a beeline for the door. A couple of students sidestep as he turns left, stalking down the hall to SLC. One isn't as lucky—he bumps into them.

"Geez, watch where you're going!" he yells—the whole place goes quiet. Face reddening, he turns heel and escapes down the staircase before anyone can say anything else.

He made a bad mistake.

4:00 PM

"He made a bad mistake."

Frankie looks up at Arjun through tear-streaked eyes. "Is that supposed to make me *feel* better?"

Rewind. Frankie bombed a midterm and almost got fired from their job due to sleep deprivation, caused by studying for that midterm. Fast forward, some rando bumps into them and the straw breaks the camel's back and Arjun's left to pick up the pieces as he walks them to the SLC.

In all fairness—okay, Arjun actually doesn't *know* what he's doing. He's never really had to deal with a crying friend before, which, when he thinks it out loud, is actually really embarrassing. Only child. School was relatively fine for him. He never really had to comfort anyone crying.

"...This is my first time." He admits. "Trying to make someone feel better."

Frankie looks up at him in disbelief, and for a second he thinks they're going to go off on him—but instead a *Snrk!* escapes their lips as the two of them begin to laugh.

Maybe this wasn't so bad after all.

5:00 PM

Maybe this wasn't so bad after all.

Stephanie had been stressing over her health paper all morning. She'd missed the deadline hours ago and she'd been racing to get it finished. Just one more page and then it was good. She'd been holed up with an iced coffee from Starbucks at one of the tables next to the bridge to MC for who knows how long.

But at the core of it, it was only 5%. She was doing fine. She was stressing over nothing! Her mind was just—spiraling. That was it. Once she submits her paper, she closes the stickerladen lid of her MacBook. There's two people laughing down the bridge, and she goes down the stairs and outside.

Deep breath in. Count to six. Out. Count to three. The sky was a wonderful shade of blue, she could see geese clustered on the field and plenty of people going about their day.

Today was a beautiful day.

6:00 PM

Today was a beautiful day. Yeah, right.

Mack wasn't one to complain about the weather, but he'd made a stupid call to wear *three layers* to campus today. And the backpack wasn't helping. He's pretty certain there's a dark spot on his back. Ugh. As if he didn't need to be more gross today.

There's a blonde girl across the green. They lock eyes for a second before Mack goes back to looking at the ground as he pushes the door open. He'd never have a chance with her.

If he isn't quick enough, he'll miss lab work. He goes through the hallway of QNC, ducking outside again for a brief second to be cooked alive by 25 degrees Centigrade, then back into the reliefs of Biology 2. Too bad he can't bring food into the lab—he hasn't had dinner yet. Oh well.

Time to lock in.

7:00 PM

Time to lock in.

But as Spencer wanders the halls of Biology 2, trying to find the right study spot, it feels like he's just taken a trip to campus for nothing. He's not sure why he's surprised, though. The tables in B2, aforementioned in issue 155.2 of **mathNEWS**, which he reads religiously, are all full. And B1 has none at all. With no choice, he sighs and heads to the Engineering buildings in hopes that there's someplace better. He passes someone whose neck is craned forward like a banana and—eugh. He resists the urge to gag. Someone needs to shower... And yet. Even when he does settle down in one of the Engineering buildings, he does nothing but watch TikTok POV videos and photo slideshows of birth months. By the time the clock strikes 8, he realizes he hasn't even written a single productive word. Groaning, he puts his head down on the desk.

This was a mistake.

8:00 PM

This was a mistake.

Connor passes someone slumped over one of the desks. He's not sure why he's in the Engineering buildings when he's not even a student here, but Becca invited him to **mathNEWS** prod night and he's already running late. Where the hell was M3?

He cautiously goes past doors, hoping no one will suss him out and give him the boot. They used to be inseparable, the two; people would joke that they were dating when they already were spoken for. "M3, M3..." He enters a courtyard and promptly exits—no, he doesn't need a dead end.

Finally, after twists and turns through the colourful pipelines of DC—he spots it. "M3!" He dashes across the parking lot through the doors, not minding the blast of AC as he makes a beeline for the doors of 1006.

The doors open and he sees her, bright eyes, curly brown hair and freckles—one embrace and everything is well in the world.

He's home.

INSOMNIA

my palate, i tasted my life in a blink the moments i wasted, the stupid time sinks for what i am fated, i just want an inkling of where i am headed other than a sprinkling of ashes inside of some ungrateful urn, all that i've done in my life in there burned, grey little dots i can barely discern from the thousands of others i see when i turn on the news in the morning, a few people mourning another reminder, another shrewd warning a message adorning my conscious a constant acrostic assaulting my senses my thoughts and i'm tense and my brain is exhausted by all of this complaining pretensive talk and i just want to go the fuck to bed, with my thoughts lying flat and my dread lying dead.

N DECISIONS I HAVE MADE AND IF THEY WERE GOOD

- Drop PMATH 347 (Snewps and rings): good
- Go lane swimming with no goggles: bad, my eyes were solid red
- Take 5 courses and a part time job: bad, what the fuck is going on
- Watch May December while high: I do not know. wtf was that
- Buy a drum kit: top 5 decisions all time playing instruments is fun
- Play the drum kit: top 4 decisions
- Be eepy: it's not a decision. I sleep 9 hours every night and it is ineffective



rockfacts

EPISODE 63: CLASSES

Mathsoc Cartoons presents episode 63 of the MathSoc Cartoons series: CS 246—Classes!

Want to see the next comic BEFORE it's released and provide feedback to help us out? Sign up to be a reviewer at https://bit.ly/cartoons-reviewer-join-S24

Want to see the next comic when it's released? Follow @mathsoccartoons on Instagram and Facebook!

As always, feedback, suggestions, and fan art can be left on the MathSoc Cartoons channel in the MathSoc Discord server or sent to <u>cartoons@mathsoc.uwaterloo.ca</u>.

snowdozer

Skit

nazz

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MATHSOC



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prof**QUOTES**

CS 247: ROSS EVANS

- 66 And this is a fun game you can play at 3 AM: Which one of these leaks memory?
- I had this Linear Algebra professor in undergrad. And in Lin. Alg. there are lots of n by m matrices. He used to call them "Nancy by Mike" matrices, till one day he got confused and started saying "Mancy by Nike."
- Who'd have known you worked so hard in high school to get into one of the best engineering universities in Canada, only for me to get up here and tell you a square's a shape.
- **66** This one's trickier: it's more of 5th grade information.
- **66** [*Class begins clapping at the end of lecture*] I still haven't gotten used to the clapping to be honest.
- 66 And another textbook, "Coding for Babies" by a Laurier prof—consisting of 50 pages since that's all they can read over there—in a baby language... Python.
- **66** My whole thesis is in Python.
- 66 So now we have my amazing book!—and the Laurier one.
- 66 Oh no, now I have written a book in Python! Disgusting, right?
- **66** They always give you the slow thing, rather than the thing you want.
- Frof: I am not sure if this is true, but did you guys stop clapping for your Math 239 professor?
 Student: It's because there are and that students in that class.
 Prof: 'Cause I heard from her that you clap twice as loud for me now and that you don't clap for her.
- I wrote "Idiot-proof everything," but then scratched it out 'cause I was worried it would be a rude word... Then I wrote UofT underneath it.
- 66 [Class claps at the end of class] It feels a bit arbitrary. Like why after lecture? Why not every time I pause? [Class claps] Aaand your assignment deadline is tomorrow. [Class claps] I could become a politician, that feels good. [Class claps]
- Frof: I was born in 1999!Student: Wait, does that mean you were conscious for 9/11?
- I always figured if this whole computer science thing didn't work out, I'd join the circus

- **66** And of course, everyone knows you can't catch something if you throw two things at once...[*begins juggling*]
- 66 See what you miss if you don't come to class?

BU 231 W: KEITH MASTERMAN

- **66** What is a mushroom?
- 66 Maybe some of you grow mushrooms in your basement. If you do, see me after class.
- 66 Oh my god! I just agreed to buy a house and I don't have any money!
- **66** Completely forgot that I was broke.
- **66** Boink! [changes slide]

CS 488: SHLOMI STEINBERG

66 We don't need to be confined to this physical reality.

STAT 444: ALEX STRINGER

- 66 A French guy once asked me at a conference if I spoke French. I replied, "Non. That's French for 'no'." He said, "I know."
- When I was a grad student, I visited [a conference] and the word "sexy" was thrown around a lot to describe statistics. I don't think that's true.
- 66 There is no other way to interpret this [graph]. 100 bonus marks to anyone who can convince me otherwise, but don't bother. I'm very stubborn.
- **66** I'm bad at having real questions to answer.

PSYCH 257: REBECCA PISTER

- **66** You can't have a donut chaser to insulin.
- Okay, last question about drugs! You're supposed to be asking about suicide.
- **66** There are fewer things trying to kill people like you.
- Yeah, I've been a young person before, and hopefully I'll be a a senior one day.
- 66 I didn't get into grad school, I'm gonna go and kill myself.

AMATH 231: ZORAN MISKOVIC

66 Next week is supposed to be much better, if we can even survive until next week.

mathNEWS 155.4

66 [When a student asked him how to spell his name] You know Zorro? The freedom fighter?

CS 251: ZILLE HUMA KAMAL

66 Oh my gosh, Dr. K, were you high when you came up with this design?

PMATH 450: ALEXANDRU NICA

- 66 Some of my colleagues can do it in 20 seconds, but I'm more of a 3-minutes kind of guy.
- **66** When I'm excited, the little one becomes bigger.
- **66** I have a beautiful theorem to tell you, called Theorem 9.5.
- Keep in mind that the graders are people too and might jump off a building if your solution is too hard to read.
- **66** This is a very legit number.
- 66 The minion who's doing my papers here has to be punished.
- **66** This was the book I had under my pillow, hoping I would learn some analysis at night.
- I was hoping that when I finished this proof, there would be two minutes left, but there are minus two minutes left.

CS 492: CARMEN BRUNI

- **66** Who here is a spy? Raise your hand. [*No hands go up*] Ah, it almost worked.
- **66** [Talking about Elon Musk's passive earnings while in the washroom] If you want to be depressed, do the math for that.
- **66** "By messaging ChatGPT, you agree to our Terms and have read our Privacy Policy"? What a joke!

CO 342: MARTIN PEI

66 Everything you were taught in 239 was a lie.

PMATH 441: DAVID MCKINNON

- **66** It's more than a candidate; it's fricking obvious.
- **66** Despite that story, that professor was really, really good.
- It could be worse. It could be physics, where the current goes this way and the electrons go that way.
- **66** How do you do that? *[long pause] [whispers]* Work.
- **66** First things first, but not necessarily in that order.

- 66 If you want to show two things are isomorphic, just write down a fricking isomorphism.
- 66 That's what all the cool people do, so that's what we're going to do.
- 66 And in a moment, it will be staring you in the face because it will be on the board.

PMATH 348: ANDY ZUCKER

66 Some abstract nonsense.

ACTSC 231: KEITH FREELAND

- **66** It's always depressing how little it goes down.
- **66** I thought I'd take the microphone home.

HOW TO BE AN EMOTIONAL SUPPORT BOY TOY

- Firstly, you should be tiny and cute. Wear the most twinkiest shirts you find at the thrift store. Wear one earring in your gay ear.
- Find a person who is in need of an Emotional Support Boy Toy (ESBT). Before you do anything, FEED them. There is a huge chance that your person in need of emotional support is hungry and dehydrated. Providing good food is one of the main duties of a good emotional support boy toy. Think of how a middle-eastern grandma spoils, minus the "when will you get married?" comments.
- Take them grocery shopping and cook dinner with them. You must have acceptable cooking skills, otherwise, why are you thinking of becoming an ESBT, you need one yourself.
- Take them to their piercing appointments and hold their hand while they get it done. Bonus points if you get a piercing yourself as well. Help them pick cute dangly earrings later for after the piercing is healed.
- Be available to provide emotional support whenever they need it.
- Go through their Tinder profile with them and help them make wise decisions. Wise as in force them to swipe right on every gym bro and left on all the girlies and emotionally wrecked people who are studying philosophy.
- Buy them cookies from E7.
- Protect them from fake French cyber-bullies. Might be a bit hard if you have a thing for French.

iam the emotion als upport boy to y

MAXWELL

I have a friend called Maxwell.

Max's features were barely legible against the dim illumination from his phone, a singular source of brightness in this otherwise sombre setting, overhanging thunderclouds desperate to descend doom at desire. But there he was in the driver's seat, his white automobile beside my apartment—a coincidence strange enough to warrant inquiries over his car window.

"Just buying tickets for the train," Max explained, "I'm headed back to my hometown for a while." He blinked. "What are you doing out here?"

Our acquaintanceship, however shallow, is adequate for me to diagnose him as a pushover with too good a heart. "Can you buy another ticket?" I smiled.

Max said sure.

It was eight hours past the last of my first relationship when Max loaded my luggage in his trunk. What a ghastly feeling it is to have the prior three years along with a full lifetime of envisioned happiness shoved down my throat. It was a rational decision; which, although unfortunately was necessitated by several harmless mistakes that withered into certain consequential regrets, had become the best course of action to avert the sunk cost fallacy.

My ex-boyfriend told me my love lacks intensity because otherwise it should have conquered all. He thought that we would have conquered all. But I am crawling from some quiet abyss so deep that all is miserable darkness while he radiates a brilliant luminosity. It is a sorrowful realization that I cannot, and should not, reach the moon.

The mizzle began the second Max stepped over the threshold into our dainty train compartment. It painted an additional layer onto the bleak scenery outside, which appeared rather picturesque framed within the wooden windowsill, as if it held a hidden meaning through its tranquillity. Absurdly enough, another familiar face came into view after we slid our luggage under the umber cushioned seats. My former co-worker wandered down the narrow aisle, this jolly character, someone back from times of happiness.

Alex beamed at me. I smiled back awkwardly, which was nonetheless taken as encouragement for him to wiggle himself into our little travelling party. An inexplicable exasperation weighs upon my heart from the conversation that has yet to happen, but I collected my thoughts: "I didn't think I would see you here, Alex."

"I'm equally surprised to see you!" Alex was delighted. "What's the trip for?"

"It's impromptu," I kept smiling, "I'm following my friend Max. Max, have you met Alex? We were roommates back in San Francisco."

They nodded to each other.

"Wait," Alex was quizzical, "you were in my Algorithms."

Max blinked: "Maybe."

"We had that professor, uh, Armin?" Alex continued, "Did you have him? Morning lectures?"

"Probably."

"I like to sit by the front. Do you remember me?"

"Yes," Max was shuffling in his seat, "I think so."

"But you two couldn't have been in school at the same time." I remarked, "You're off sequence since second year, at least."

"Max," Alex shook his head, "my guy, do you agree to everything?"

"Perhaps," said Max.

I laughed out loud at that.

"Anyway." Alex chuckled dryly, "Just you two on the trip? Your boyfriend's okay with this?"

Well, I thought, Alex was still the same. He acted like an adorable pet until his ego was hurt. My kaleidoscopic mood had begun skipping, joyously, to the unexpected element of comic relief, yet now it limped again. I cleared my throat to announce the break-up, feeling clumsy at my own embarrassment in having to admit unhappiness.

"Oh," Alex mumbled, "I'm sorry to hear that." The rain became a tumbling downpour that howled beside the rumbling train. "Erm, what about you, Max? What's the purpose of the trip?"

Max was quiet. Then he said, "My childhood best friend killed herself."

"Oh," Alex said.

I laughed again. This time Alex commented nothing.

The topic regarding our personal interests in the trip was hence shunned, even after Alex bid us goodbye as the old train slowly rolled to a stop. Related issues were not discussed, neither on the quiet bus ride to the seaside village nor the stroll across it, silent, towards the funeral. Max's hometown provided me with the strangest sensation: it was as if it swallowed me into a painting, 19th century Romanticism, tempestuous brushstrokes depicting serene beauty. The roaring sea hugged the coastal meadow on which white villas stood, the misty sky hanging high above, with beaches everywhere.

She was pretty, the childhood friend, even in black and white. "The sun," said a graceful woman at the end of her eulogy, "shined brighter when she was here. But I must urge you to surmount sadness. It gets better," she took a moment to steady her voice. "Time heals all."

Time, huh?

But it was exactly time that gave rise to my discomfort with moving forward. It was the feeling of defeat against the creeping passage of it, dire in its steady pace. I thought I had already formed a good comprehension of time in terms of its cruelty. It nevertheless remains daunting to see its violent slashes; cutting through matters, meanings, and memories. Do I want to heal if it means to forget?

Max took me on a walk by one of the endless beaches after the ceremony. We were staggering, our feet sinking into the white sand. I wondered how long my ex-boyfriend would love me after I was gone. "Max?" I asked.

"Yes?" he answered.

I needed his agreement for once: "Does it get better?"

Max said nothing. We travelled on.

Kaisa

N ERRORS I'VE MADE, THE MARKS I GOT DEDUCTED FOR THEM, AND EXPLANATORY COMMENTS

PROOF THAT MATH DEGREES ARE EASY

- √3 ∈ Q(√6): 2/10 marks deducted
 Somehow, this is actually not what I was deducted marks for.
- "This does not make sense": 3/10 marks deducted
 These were the only marks deducted.
- "Wrong calculation" and "Did not set up PV correctly": combined 1.5/4
 - They gave over 50% marks for a question I did completely wrong in every way possible.
- 1+1+1 = 1: 0/10 marks deducted

THIS FROG IS BLISSFULLY UNAWARE THAT IT SCARRED THE FROG IN THE ARTICLE BELOW THIS



peacelovemath

THE ARTICLE ABOVE THIS ARTICLE SCARRED THIS FROG



and that last one was over \mathbb{Z} , so I have no excuse.

A WALK THROUGH THE FOREST

OCTOBER, 2019 - MARCH, 2020

I had spent years looking at the forest. Its shade pleasant, its wildlife free, and its plants thriving. In the wall of leaves, there was a small gap in the leaves, just big enough for me. Beckoning.

But the sun was warm. It provided nourishment for all that surrounded me. I awaited its coming each morning, and mourned its disappearance at night. Yet it looked down at me still. It had been there forever, and I had been here forever too. How could I abandon it when it had given me so much?

Now, I had an opportunity. The opening drew me close, away from the clearing like a curious child. Like a curious child...

A porcupine was waiting.

"So what brings you here today?" the doctor asked.

The answer slipped out. I had gone over it a thousand times in my head, but it had never escaped my thoughts before.

The porcupine listened as we walked. It moved slowly, deliberately, and I followed.

"I see," the doctor replied, scrawling notes on her clipboard. "Have you considered seeing a counsellor? They can help."

A flash of bright fur caught my eye, but I had to focus.

"Do I have to? I get there's procedure, but I know this is what I need. Is there no way you can help me right now?"

She set down her clipboard gingerly. "I think it would be for the best."

Branches cracked. My gaze split from the porcupine to a fox emerging from the bushes. I guess it had been following us. Maybe it would be faster. Maybe it would lead me through the forest.

"How are you today?" the therapist asked.

The fox looked inquisitively. It looked natural in its habitat, a patch of vibrant colour in a sea of muted green.

"Well, I'm guessing you've read my notes," I said evasively. It still didn't come naturally.

"Sure, but can you tell me yourself? In your own words?"

With the fox listening, we continued. But it moved quickly. I struggled to follow, nearly getting lost among the trees.

The silence persisted long after I stopped. The therapist leaned back in his chair, deep in thought without letting me away from his sight. "What are your goals? What do you envision for your life?" he asked.

"Well, I feel dissatisfied right now. I think..." I trailed off, pausing to imagine. "When I walk across that stage in four years' time, I don't want to use the same name. I don't want to have the same style." I hesitated again.

"I don't want to be the same person."

I had been following the fox for a while, but realized we had returned to the same place. The porcupine faced me again, and I felt frustrated and tired.

"I've explained what I need several times, but I feel I'm not moving forward," I said, close to tears. "I don't know what to do anymore."

"I think you should keep going to see your counselor, but I do have someone else who might be able to help," the doctor offered.

The forest was dark now, and the porcupine was gone. I could see something though: a fluttering light. Dim, but unmistakable. A firefly. I waded towards it through the thick darkness.

The psychologist sat across from me in the small room. "Good evening," he started. "There's a lot of questions to get through."

The firefly began to move, and I tried to follow its light. It moved fast, like lightning.

"How do you feel about your role in society?"

I felt the brambles scratching my body, pricking and scraping as I ran. I knew I would see bright red all over my skin, if I could have seen at all.

"What do you fantasize about? How exactly do you satisfy these thoughts? How often?"

Along my path, hundreds of colourful rocks lay, painted by generations who had walked the same way as me. They glowed by the light of the firefly. I had seen them before. They would be my guide.

"Did you suffer any abuse? Is that why you don't want to think about your childhood? Why you can't remember?"

I moved as fast as I could. I could not let myself lose sight.

His notebook was filled with notes. "That's all the questions I have."

It had been a long hour, and I tried to put the questions in the back of my mind. "So, what do you think?" I asked jokingly. "What's your diagnosis?"

But the firefly was gone, and I found myself in the clearing again. I

mathNEWS 155.4

had left the forest through the same opening as before. Among the leaves, the gleaming eyes of the fox found me again.

The counsellor's voice crackled through the phone line. "Are you still there?" he asked.

"Y... yes, I'm still here. I..." my voice trailed off. I hadn't spoken in a while. "I just don't understand."

"You know, given this pandemic and lockdown stuff, we've had to go online. You said you've returned home, right?"

"Yes. Not sure for how long."

"Of course. It's all up in the air," he said tritely. "That said, though, that means I can't continue these sessions for now."

It was so bright, and no trees surrounded me anymore.

"Are you aware of any supports available to you back home?"

I looked up. The sun burned down at me, just as it always had.

My heart sank, but what else could I say? "Yes, I can try to get in touch with them," I replied.

Behind me, the fox looked on, satisfied. Turning, it disappeared among the leaves.

I was in the clearing again. Except now, I found no comfort. I could only hope the sun could not see the scars on my skin.

I had spent years looking at the forest. Its shade comforting, its wildlife free, and its plants thriving. I would not enter again for a long time. But it still beckoned all the same.

verdanik

MUSICAL REVIEWS—LES MISÉRABLES, SIX AND FIREBRINGER

MINIMAL TO NO SPOILER ALERT

LES MISÉRABLES

Les Misérables, premiered in 1980 in Paris, is one of the longest-running musicals in the world. It was performed in Toronto in the past months, but will be performed again in Ottawa from Aug 6 to Aug 11 this year. I went to watch it last month and loved it. Although I am not an expert in theatrical art, I can feel that the cast did really well in performing their characters, and the sound and visual effects were astonishing.

Speaking of the story without spoilers, I really like the scene *The Second Attack* and *Javert's Soliloquy*. They were such emotional moments that I couldn't help but shed tears. I felt that the dialogues in the two scenes resonated perfectly with the prologue of the musical, deepening the character development of the pair of arch-rivals. I would also recommend reading the original lines in *Les Misérables* by *Victor Hugo*. It is quite memorable as well. And of course, *Do You Hear The People Sing?* is such a heart-wrenching banger. I heard the joys and cries coming from that idealistic and revolutionary age.

If you haven't watched this masterpiece in person, find an excuse for yourself and go to Ottawa in August. It will be a once-in-a-lifetime experience. Watching the play also gave me one more incentive to learn French (insert N reasons to learn French here), as I want to read *Les Misérables* the book in French and visit those historical landmarks in France someday in the future.

sıx

This 80-minute comedy blends traditional musical with pop music in a creative way. It was originally premiered in the UK in 2017. Its Canadian production began last year in Edmonton and was transferred to Royal Alexandra Theatre, Toronto in September. The story is about the 6 (ex-)wives of *Henry VIII* and their competition on who suffers most from their shared husband. Every wife has her *Queenspiration*, which are the pop stars that the character-themed song got inspired from. I found all of their songs enjoyable. Besides that, the narration was also very charming. The musical explored the normal life of the six wives and what they did besides being Henry's wife, and many metaphors were used to tell their stories in unique and creative angles. If you are interested, go search *Megasix* online. Surprisingly, unlike traditional musicals, this Finale song is allowed to be filmed by the audience.

FIREBRINGER

Originally written and produced by *Team StarKid*, this musical comedy was originally funded on Kickstarter and was later premiered in 2016. The original production is free to watch on YouTube. A few weeks ago, *Firebringer* was brought alive at Kitchener-Waterloo Little Theatre. You privileged fucks should go watch it. The cast (including an impostor goose from UW) and their performance were amazing!

Jokes aside, the story tells the story of one tribe of cave-people living a prehistoric life while the discovery of fire permanently changes their fate. Watching the daily life of cave-people was very amusing, but this musical also explores the moral and cultural norms of human being and how they are discovered and further rooted in the tribe. What's more, this musical is easy to understand, making it enjoyable for a wide range of audiences. Definitely bring your goose friend along!

mathNEWS 155.4

I LISTENED TO EVERY SUFJAN STEVENS ALBUM

God fucking damnit JP. I was going to write *literally this exact article* and make a big show of riffing off your style, but you just had to anticipate exactly which artist's albums I was going to review and beat me to it. I would've done it this issue, too, if I didn't have so many goddamn train articles to write. I didn't even get a chance to listen to A Sun Came and Enjoy Your Rabbit in time. Whatever. Here's my ranking I guess. What the hell.

- 1. *Illinois*—"The Predatory Wasp Of The Palisades Is Out To Get Us!"
- 2. *Carrie & Lowell*—"Fourth of July" obviously, but like shoutout to the live version of "All Of Me Wants All Of You" tbh
- 3. Javelin—"So You Are Tired"
- 4. *The Age Of Adz*—"Impossible Soul"
- 5. *Michigan*—"For The Widows In Paradise, For The Fatherless In Ypsilanti"
- 6. The Ascension—"Sugar"
- 7. Seven Swans—"To Be Alone With You"

___init___



This is a list of artists and music that fall in the category of RnB, Vocals, Soul (and maybe even Pop?) for me and I have loved coming across their songs:

- JVKE
- keshi
- New Hope Club
- Benson Boone
- Henry Moodie
- Ber
- d4vd
- Jace June (Goodbye My Baby)
- Ford Duet (goin' through)
- vaultboy
- starfall
- Gun Boi Kaz
- Duckwrth (No Chill, Crush)
- RC AVENUE (SO WHAT?)
- Josh Makazo
- Eric Nam
- brb.

music_is_life

N WAYS TO GET OVER A BREAK UP

A TRIED AND TESTED TECHNIQUE!

- **Cut all contact with your ex**: the more space, the faster the healing.
- Spend time with friends and loved ones: a relationship is not the only possible source of connection. talk to your loved ones!
- **Rediscover your hobbies:** learning to be happy on your own means refinding joy in the things you do for yourself.
- Focus on self-improvement: throw yourself into schoolwork, go to the gym, learn a new skill. you'll be distracted and come out better.
- **Contact your ex:** screw self-respect, it's time to throw away all progress!
- Live in the happy delusion that you will get back together: you are no longer sad about the break up!!! mission accomplished!!!!

be'f un-wellington

for those who know me in real life, relax. i have not done this again since the last time i did it :)



UPDATE TO "BLUE JAYS RADIO COMMERCIALS RANKED" FROM 155.1

Breaking news! Krown Rust Protection has changed their ad. Instead of claiming that "spring is the best time of year to protect your car from rust," they are once again asking, "Did you know that your car rusts faster in warmer weather?" I knew it—they do have a different summer ad. Though I guess this technically doesn't go against what they said in the spring. I guess we'll just have to wait and see what their messaging changes to in the fall. At least we can now say it's officially summer. Thanks for confirming the passing of seasons, Krown.

normalparameters

N THINGS MY CATS HAVE SAID TO MAKE ME FEEL BETTER

- "prrow"
- "MEOW"
- "brrrr"
- "mew"
- "mrah"
- "ekekek ekekek"
- *sitting there silently*

bsgcg (send 352 help)

N REASONS MIDTERMS SUCK

- stressful
- mandatory
- in the evenings?!?! Why?!?!
- must skip dinner (the worst)
- social ruin
- less time to eat ice cream
- · less time to go for walks
- must use calculator (WTF?)
- must remember to bring calculator (skill issue)

QUAAAAAAAAK



WHEN U ARE GAY AND ATTEND UW

I was pleased to read in the last issue that there is another tragic soul at UW suffering from a crush on a girl (QUEER EDITION). It was frighteningly similar to my own situation from winter 2024.

The spring 2024 semester update: after many threats from friends, I have spoken to her in person—WOW APPLAUD ME. I choose to ignore the fact that I was running out of breath from simply talking to her a few days ago. So to last issue's writer, I'm wishing you all the best as you suffer!

I leave you with this, god-awful ways to cope:

- make playlists (classic)
- find something in common and go crazy
- dye your hair
- get piercings
- walk the halls anxiously because you might run into her
- daydream in every class
- learn her schedule... (I swear she told me)

A BURGER KING WHOPPER MEAL IS 15.40 CHF = 23.55 CAD IN SWITZERLAND

please someone help me I've been priced out of eating burger king... what does it even mean to be lower-class anymore??? (this article will seem insane in 20 years when a canadian burger king whopper meal is 96.47 CAD)

jeff

WANT TO WITNESS SOME CULINARY CRIMES?

Join the Pure Math, Applied Math and Combinatorics & Optimization Club! We have:

- Chicken smoothies
- Peanut Butter Vodka smoothies
- Booty flavoured Buldak (idk how this is possible)
- Cheetos smoothies

Note: this article is not supposed to target any individual at all.

INTRUDER IS COOL AND YOU SHOULD BUY IT

BUY MORE STEAM GAMES YOU REALLY NEED THEM

Well, it's that time of year again; the **Steam Summer Sale**. It's the best time to get a good deal on a game you've wanted for a while, or an even better deal on one you'll never play.

It's also the best time to buy Intruder, because it'll probably be about half off, if I had to guess. *Intruder* (Subtitled: Stealth Multiplayer Experience) is my favorite stupid game I've played in the last year, because it rides the line between actual game and joke very well. It's a multiplayer stealth shooter somewhat in the vein of *Rainbow Six: Siege*, with the important inclusion of proximity chat. The only way to interact with your teammates is speaking out loud to them, which the other team can also hear if they're close enough.

I love features like this in games. It reminds me of another indie game I played a ton before it fell off, *Sub Rosa*. That game was almost entirely based on its proximity chat feature and hitting people with cars, and I played it for 200 hours, making it my most played game on Steam. Unfortunately, due to some servers shutting down and the dev effectively abandoning the project after barely publishing it, the player base took a major dip in numbers, making it almost unplayable in it's current form.

I don't want this to happen again to *Intruder*, so I'm shilling for it here to give it a player boost. This game is fantastic when you get in the right lobby. You can put a banana on the stairs and make your friend slip and straight up die. You can get funny hats. You can join one of the three active games and meet the guy who runs the *Intruder* social media and listen to him beg for people to follow the game on TikTok.

It's a good time if you want one, but the listed Steam price of about 23 dollars is a little much for most people. It's still technically early access, and the player base is pretty small, so buy it on sale this Friday for like 10 dollars please and thank you I'm out of time to write this bye.

greatidea

DESPITE WATCHING MANY POLITICAL CHANNELS ON YOUTUBE...

I somehow forgot that next year was a federal election year here in Canada. Make sure to register to vote if you're eligible to do so! *This article was [not] paid for by the Government of Canada.*

AN OPEN LETTER TO EVERYONE WHO MADE FUN OF ME FOR NOT BEING ABLE TO USE THE WHOLE SPICE PACKET IN MY RAMEN

Denmark recalls Korean ramen for being too spicy



Tag det op med politiet, røvhuller.

Dick Smithers

THERE'S A UNIVERSITY OF WATERLOO GOAL IN INGRESS??

I didn't know but now I do and it's making me want to reinstall the game after having played it with my dad so much when I was in grade 3 that I came up with a concept for Ingress 2 on the back of a strip of that poster board outlining paper

Sexy_Software_Babe

IF A COURSE IS 0% EASY ON UWFLOW

It's 0% easy for a reason. I learnt that the hard way.

N THINGS THE W STORE SHOULD RELEASE EXCEPT THEY'RE ALL GEESE

list inspired by the recently released Gay Goose!

- pink tie goose (tie sold separately)
- party goose (with disco ball included)
- gaming goose (with headset included)
- baby geese set (only available in the Spring)
- hissing goose (it hisses when you step within a one foot radius)
- tutu accessory (fits on the goose)

headphones97

THE ALBERTA HATE LEAVING MY BODY WHENEVER SOMEONE FROM THERE REPRESENTS CANADA ABROAD

Writing this during Game 7 hope all goes well

[Editor's Note: 😟]

Whole Number Haver

I FUCKING HATE CAMPUS NOW

I HATE YOU

To the "doctor" at health services that watched me lose weight without trying for months and refused to properly medicate me and decided to turn what ended up being our last appointment into a traumatic disaster. I see your face in my nightmares. You made me hate being on campus.

Don't Trust Pigs in White Coats

A READER'S RESPONSE TO MATHISTOOEASY'S SPEAKING MY TRUTH: AFM IS THE HARDEST MAJOR

Should have just done the work to make the major easy 4Head. Any major is easy as long as you put the work in.

AnotherGachaAddict

DETERMINING THE DEGENERACY OF UW STUDENTS

This is a very scientific research study to determine if there is a correlation between the degeneracy of UW students and their programs. Please respond to this anonymous survey, results will be published in the next issue of **mathNEWS** :)



ilovemyemotinalsupportboytoy

Don't put that in math NEWS. I don't need my name attached to it when you Google me.

BLAKE MADILL

ZZZ gridCOMMENT 155.4

beloved gridWORDers,

i hope everyone's midterms went/are going swimmingly!! mine swam in a way that is best described by comparing it to the time i got waterboarded and blinded by my own hair during lane swim and essentially dry drowned for the entire minute it took for me to get to a shallow part of the pool. i am lucky to be alive.

last issue, i asked you guys "what should i make for dinner tonight?" and i received so many scrumptious suggestions:

- denko & redwearer: pan fried gnocchi with pantry sauce
- __init__: girafarig's meal (as featured in mathNEWS 154.6)
- partly cloudy: *sweet potato casserole*
- livzcy: spam eggs and rice
- nike: isn't it obvious? spaghetti
- lemony: Fennel leaves dumplings
- Uniformly Cauchic: A little perspective (ideally prepared by a rat)
- UW Unprint: chicken bacon mac and cheese (\$14.75 at williams)

- hv: mac and cheese, no chicken, no bacon (\$10.50 at williams)
- cutlet: котлета
- jeff: battery soup, in celebration of Eat Batteries Day
- battlestar galacticumguzzler: buldak noodles with 2x spicy sauce (braver than I am)
- awmlet: 生日头
- Lars Nootbaar and aphf: *Roasted Gnocchi with caramelised cauliflower and a tahini sauce*

thank you everyone for all the recipes! especially lemony for the fennel dumplings that hit very close to home. math cnd food could never measure up (controversial), but please collect your \$5 gift card at the **mathNEWS** office (MC 3030), my treat!!

this issue's gridQUESTION is: what is your favourite colour? :3

please send your gridWORD solution, answer, and pseudonym to mathnews@gmail.com by monday, july 8, 2024 at 6 pm waterloooo time

spaghettiinhalers

ACROSS

- 1. Baby buggy
- 5. Junk
- 9. Complain
- 13. Type of school
- 16. Successor*17. Mountain range in South America
- 17. Mountain r 18. Helper
- 18. Heiper
- 19. Group belief20. Ragamuffin
- 20. Kagan 22. Mint
- 23. At one time, at one time
- 25. Except if
- 27. Lens
- 30. Make sense, with "up"
- 32. Before, before*
- 33. Emulates Eminem
- 34. Goof*
- 35. Family life, figuratively
- **38**. Little devil
- 39. Small writing paper
- 41. Everyday article42. Runeterran peak
- 44. Lungful*
- 45. Country dance
- 46. Always, poetically*
- 47. Thoughtful sound
- 48. Alpine song
- 49. Copier

- 51. First of all
- 53. Hula hoop?
- 54. mathNEWS enjoyers get +1000000 ____
- 56. Happen
- 59. Kind of exam
- 61. 16-Across, 32-Across, 34-Across, 44-Across, and 46-Across; e.g.*
- 64. Waterloo, e.g.
- 65. Type of naval mine attached magnetically attached to targets
- 66. Joint with a cap
- 67. Snoopy 68. Stash
- _____

DOWN

- 1. Pipe material
- 2. Dig like a pig
- 3. A lot of lot
- 4. Insanity
- 5. River bank deposits6. Campaigner, for short
- 7. De novo
- 8. Plunder
- 9. When doubled, a dance
- 10. Put back in
- 11. Gofers
- 12. Suds
- 14. Layers

I put this here just so I could fill this page.

- 15. Reposed
- 21. Armada
- 24. Lip-puckering
- 26. Generation
- 27. Pluck
- 28. Priest of the East
- 29. Value
- 31. He took off his mask
- 34. Ages and ages
- 35. The other woman
- 36. Biblical pronoun
- 37. Hot spot
- 39. Persian wheel
- 40. Bean town?
- 43. Gastroesophageal reflux
- 45. Chick flicks, usually
- 47. Narc's concern
- 48. Marina sight
- 49. Small finch
- 50. Elaborate inlay
- 52. Stupid
- 53. Wrestling hold55. Shot, for short
- 57. Ton, for one
- 58. Gambling mecca

A TIRED mathNEWS EDITOR

- 60. Basic cleaner
- 62. Photo ____ 63. Stitch up

(TREALED CONTRACT)

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Want to write for mathNEWS? Come to the next production night! New writers are always welcome!

A mathNEWS EDITOR WHO NEEDS NEW FRIENDS

lookAHEAD



LAST ISSUE'S gridSOLUTION

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³⁹ A	L	С		⁴⁰ F	А	S	Т			⁴¹ P	А	G	Е	D
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				62 W	Е	Е	Ρ	Y			⁶³ D	R	Е	Y

I LOVE TENSORS

A tensor product of spaces X and Y is the space of linear functionals on the space of bilinear functionals on X and Y. A tensor product is a quotient space of the space that has the cartesian product of X and Y as a basis, and the space spanned by the properties we want tensors to satisfy. A tensor product is anything that satisfies the universal property of tensor products. I love when Raymond A. Ryan tells me a simple calculation provides the given result, or clearly uniqueness implies surjectivity, or that naturally this action of tensors is defined this way. I love spending hours deciphering single paragraphs because details are trivial and must never be provided. A tensor product is the catalyst for my retreat into the Boreal Forest, never to return.

sunrise parabellum

math NEWS

other**NEWS** is made technically possible by club executives of the Math Faculty.

I say "technically" because if they had sent us more news this week, this box wouldn't be here.

THE mathNEWS EDITOR WHO PUTS THE "NEWS" IN mathNEWS