

snowdozer

“WHAT SPORT SHOULD THEY ADD TO THE OLYMPICS?”

So, it begins.

Finals are upon us once again. I personally am terrified, I have not been to class in a frightening amount of time (I blame 8:30 AM lectures) and my understanding is cobbled together through what I cram before doing assignments. But hey, if you're in the same boat, we have time after classes end to lock in and grind. Or that's what I've been telling myself. Either way, it is what it is, fuck it we ball, etc., etc., we'll live. You've got this, it'll work out. Since it's the last issue of the term, instead of lamenting the march of time dragging me back into the fear-response-inducing exam rooms in Needles Hall, I'll reflect.

Being an editor has been such a cool experience. I really love **mathNEWS**, the other editors, editors emeriti, the writers, and all of you are so cool. It's been one of my favourite things at this school since my first production night in Fall 2023, my 1A. I was a very reserved high schooler, I never got involved in any clubs, student government, or anything of the sort. The change in atmosphere at uni has been insane. There's so much I'm actually excited about doing, and even more cool people to do it with. Putting myself out there during orientation, forcing myself to talk to people, joining clubs, and generally making my best effort is one of the best things I've done for myself. Between **mathNEWS**, PMC, FemPhys, MathSoc, and other clubs, I've met so many amazing people here.

So to the incoming first years, some of whom I know read this. Put yourselves out there!! Talk to people!! You've moved in and you're in line in the V1 caf, talk to the person in front of you. At orientation events, talk to the people around you. Play cards and pool, work on homework together, explore campus, visit uptown. Find other students into the same stuff as you, I promise they exist, no matter how niche. Attend as much stuff as you can, join clubs, take advantage of the environment afforded to you.

Anyway, we have a very fun selection this issue, with some bittersweet final articles, budget travel guides, more music reviews, linguistics, questionable show reviews, and two articles about being addicted to a game, which is kinda funny. Excited to see you all next term ♥.

abstractED
Editor, **mathNEWS**

PLATYPUSGOD	Tag
USMAN!	Extreme Couponing
NAZZ	inner tube water polo
NIKE	extreme foreplay
BSGCG	Magic: The Gathering
ANDOIII	speedrun maxxng an osrs account. Fastest event ever.
HYPERLYNX	Competitive LaTeXing
RAPIDEYEMOVEMENT	Getting out of bed
VERDANIK	Rocket Ski Jumping from Mario & Sonic at the Olympic Winter Games for the Nintendo DS
MOLASSES	microsoft excel (sudden death edition)
SNOWDOZER	Calvinball
YUMMYPI	Whimsy and silliness (competitive)
TERMINAL	integration
SQRT(CAUSE)	A random citizen from each member nation forced to run a marathon.
SHAHABEE	Climbing 2: Electric Boogaloo
PICA	leapfrog
PANASTAN	neuron e-scootering
LARS NOOTBAAR	Baseball to spite the anti North American hegemony
NOT A N*RD	Professional Olympic-Watching
TOTALLY UNUNIMODULAR	Competitive mathNEWS Writing (Easy gold for Canada)
JEFF	Overload resolution (C++23 ruleset)
CUTLET	gaga
WHOLE NUMBER HAVER	goosefighting & moosering
APHF	Lethal Beyblades (Fingers inside the arena)
BLINCHIK	Swimming (leisure)
B'EF UNWELLINGTON	leetcode
NOT_A_UW_STUDENT	Competitive Gaslighting

ARTICLE OF THE ISSUE

Congratulations jeff! We liked My.Name, I never made the connection with your name but that's really funny. I hope people never forget it and it follows you around ♥.

abstractED
Editor, **mathNEWS**

They should ban ads that cover bus windows.

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

mathASKS 155.6

FEATURING mathNEWS EDITOR DERAILED

RAPIDEYEMOVEMENT: WHAT'S YOUR FAVOURITE BULDAK FLAVOUR?

I hadn't actually tried Buldak before! But after reading your article I tried the carbonara and can confirm, it's pretty good.

APHF: TOP TEN WORDS

AA, AAH, AAHED, AAHING, AAHS, AAL, AALII, AALIIS, AALS, AARDVARK

NO PUN INDENTED: I AM WONDERING WHY YOU TRAVEL LIKE 6 HOURS ONE WAY IN ONE DAY RANDOMLY BY YOURSELF FOR NO EXTERNAL REASON EVERY MONTH OR TWO GOOD SIR?

Why wouldn't I? I don't understand the question.

NOT_A_UW_STUDENT: WHAT'S YOUR FAVOURITE COMMUNICATION PROTOCOL?

One of these days, when I have way too much free time, I want to read the USB spec cover to cover. It looks like fun.

Right now I am not having a good time working with SPI, so count that as my least favourite I guess. Weirdly enough, SPI is basically the simplest serial protocol you can have while USB is mind-bogglingly complex, so you'd expect it would go the other way. But as it turns out, there are a lot of ways you can fuck up the simplest possible serial protocol.

NOT_A_UW_STUDENT: HOW DOES ONE... "KNOW TOO MUCH" ABOUT THE PYTHON PROGRAMMING LANGUAGE?

Reading too many books as a child, and then eventually getting tired of the young adult fiction and doing a hard pivot to programming books, I guess?

HOMESTUCK FAN: IS YOUR NAME A HOMESTUCK REFERENCE? (BOTH DAVE STRIDER AND TEREZI PYROPE ARE IMPORTANT CHARACTERS IN HOMESTUCK.)

I get this question a lot. I have never read Homestuck. I am afraid to read Homestuck at this point. I have no idea why John Homestuck has cursed me and my family in this way.

My last name is a reference to the small Italian town of Termini Imerese, which, to my knowledge, is a largely unnoteworthy piece of geography. My first name is a reference to the AOTI-winning article in **mathNEWS** 155.1, *The Daves I Know*.

BPHF: WHAT'S YOUR MIDDLE NAME?

I've given away enough of my names in this Q&A already, haven't I?

LARS NOOTBAAR: WHEN WILL GO TRANSIT REACH PORT COLBORNE, ON?

It's gotten closer than you might think! There was a proposal at one point to, instead of running GO trains to downtown Niagara Falls, run them directly to Clifton Hill via Welland. There's an abandoned railway from Welland to Port Colborne, and on satellite view it looks like the tracks are still intact, so a branch line could maybe be doable. Try writing letters to Doug Ford and see what happens I guess.

NIGEL NOOTBAAR: WHAT QUESTION DO YOU WANT TO BE ASKED?

Not this one. It's not creative or original. Try harder.

SEXY_SOFTWARE_BABE: THOUGHTS/OPINIONS ON TRAINS? (FEEL FREE TO RANT ABOUT WATERLOO PUBLIC TRANSIT HERE)

I'll give you my thoughts on a train: a while ago I went to a community consultation for a proposed train service between Guelph and Cambridge, reusing a disused track. It would be a pretty easy project since the tracks are already there; the most complex part was building a new station in Cambridge (fun fact: Cambridge is the largest city in Ontario with no passenger rail service!).

Unfortunately, the proposed location of this station was at Pinebush and Hespeler, which is probably the most depressing intersection in the region (if you've taken the 25 you'll know this), and nobody lives around there or anything. Also, people keep getting hit by cars there. It connects to the proposed ION stage 2 extension, but if they used the *rest* of the disused railway, they'd end up at another future ION stop that also happens to be near things where people might want to go. (It's also coincidentally near the old Cambridge train station, which hasn't been used since the 70s but is still standing if anyone wants to check it out!)

And under the current plan, the train will follow an old industrial spur to the Pinebush/Hespeler station which means they wouldn't be able to extend it later. Kinda silly imo.

MOLASSES: WHAT PLACES WITHIN A DAY'S TRAVEL OF WATERLOO HAVE YOU ALWAYS WANTED TO VISIT BUT NEVER HAD THE CHANCE TO?

One of these days I want to explore some of the weirder suburban developments in the GTA. Like the area around Mount Pleasant station in Brampton which has midrise and highrise buildings extending right up to the country line, or this development called Cathedraltown in Markham which is filled with awful-looking suburban sand-coloured houses but in the centre there's this ornate cathedral for some reason. It also has something that looks kind of like a main street but

all the storefronts seem designed to look as unappealing as possible. The photos of it look incredibly bizarre.

MOLASSES: WHAT ARE SOME OF YOUR FAVOURITE HIDDEN GEMS, CRYPTID SPAWNPOINTS, AND OTHER NEAT SECRETS YOU'VE FOUND AROUND WATERLOO AND THE GTA?

In Kitchener, near the train station, there's a store that sells batteries. It's called Battery Junction. It's a bit hard to find: it's on a side street, on the second floor of a repurposed old factory, one of the ones with brick walls and creaky wooden floors, that houses a martial arts studio and a car parts shop. It took me about ten minutes to figure out how to get in the building: the entrance doesn't really look like you're supposed to go in that way. Once you're inside, though, there are signs directing you up the stairs to the correct door, which is made of solid wood with no windows. You open it and it's a big room filled with cardboard boxes, with a couple shelves of batteries in the corner. There's a desk with a cash register and a coffee table in a back corner where it looked like the owner had his breakfast.

When I went in, the owner, whose name I think was Syed (this was a while ago), looked almost surprised to have a new customer. He told me about how he used to have a store on Victoria Street, but rent got too high so he moved here, but somehow the engineering students still find him when they need batteries for their projects. He sold me the batteries I was looking for and then proceeded to spend about an hour telling me about his life story, his son who owns a much more successful electronics store in Mississauga and his friend who owns Farah's, and the history of India and Pakistan.

So, yeah, fun place. If you need batteries, this absolutely is a place to get them.

DERAILED: ANY IDENTITY THEFT TIPS?

Be more discreet. The **mathASKS** form is anonymous but I can still tell exactly who sent this. I could get you arrested, you know. It's illegal to impersonate an editor.

FIRSTIE: WHAT DO THE FOLLOWING EVALUATE TO IN PYTHON? -100 IS -100, -5 IS -5, -4 IS -4, 0 IS NONE, 4 IS 4, 5 IS 5, 100 IS 100, 1000 IS 1000

True, True, True, False, True, True, True, True.

If you're trying to run into a problem with integer caching, it takes a bit more effort than that I think. You have to assign the values to different variables and have them compiled separately, otherwise the compiler will optimize the quirkiness away. The most common way I've seen this done is in the REPL:

```
>>> a = 1000
>>> b = 1000
>>> a is b
False
```

If you put these lines in the same file so they're all compiled at the same time, though, the last line will evaluate to True.

BLINCHIK: FAVORITE WAVELET?

I think the Shannon wavelet strikes the perfect balance between looking kinda funky and not behaving *too* weird.

VERDANIK: WHAT WORD ARE YOU MOST PROUD OF PLAYING IN SCRABBLE?

It was probably 10 years ago when I tried to play the word "muzjik" in a game of Words With Friends and the game crashed. For reference, "muzjiks" (with an S) is famous for being the highest-scoring 7-letter word you can play, so this story sounds totally made up. But I promise it really happened.

VERDANIK: WHAT WORD ARE YOU MOST PROUD OF USING (PLAYING) IN REAL LIFE?

Anything that I learned while studying for Scrabble before encountering in the real world. I get to point and say "hey Scrabble reference!" I think "arcsine" was like this for me, for example.

QUAT: HI

Hi

CUTLET: YOU KNOW TOO MUCH ABOUT PYTHON; WHICH PROGRAMMING LANGUAGE DO YOU KNOW TOO LITTLE ABOUT?

C++. Every time I look at a new codebase they're using a new set of features I've never heard of before and it scares me.

SEXY_SOFTWARE_BABE: FAVOURITE AND LEAST FAVOURITE COURSES SO FAR IN YOUR DEGREE?

I mentioned ECE 327 (Digital Hardware Systems) as a favourite course previously in a **mastHEAD**, so in the interest of originality I'll shout out ECE 414 (Wireless Communications), which I'm currently taking. Apparently this class used to be huge back when UWaterloo was essentially a feeder school for BlackBerry, but these days we take it in a small classroom in a corner of E7 that fits like 30 people. After saying our daily prayer to Claude Shannon, we proceed to find as many different ways as possible to think about signal space. It's fun.

Least favourite course was ECE 192 (Engineering Economics). Boring useless class where you make interest calculations using equations that are written in the most obtuse way possible and that Excel probably already has a formula for anyway.

USMAN!: IS YOUR PSEUDONYM MEANT TO SIGNAL YOUR LOVE FOR TRAINS?

Sure, or my propensity for getting derailed. Up to interpretation.

SEXY_SOFTWARE_BABE: HOW'S YOUR CURRENT STUDY TERM TREATING YOU?

Kinda burned out over the capstone project tbh. I was excited to start working on this at first but writing all these reports on tight deadlines with all the other stuff I have going on has made me lose interest really fast. Other classes are pretty good though.

SEXY_SOFTWARE_BABE: DO YOU HAVE ANY PLANS FOR WHEN YOU GRADUATE? AND IF SO, WHAT ARE THEY?



SEXY_SOFTWARE_BABE: IS THERE A LIMIT ON HOW MANY QUESTIONS ONE PERSON CAN ASK? ON HOW MANY QUESTIONS CAN BE IN ONE mathASKS?

Well, if you ask me too many open-ended questions I might run out of time trying to come up with answers for them all...

CUTLET: HOW LONG DID IT TAKE YOU TO ANSWER ALL OF THE QUESTIONS IN THIS mathASKS?

I meant to keep track of this but ended up answering these in so many small sessions that it was impossible. I think I answered about a quarter of the questions in one hour in the mathNEWS office at one point, so maybe four hours is a good estimate?

N KITCHENER MARKET MOMENTS

- Purchasing several bunches of grapes from the grapes woman for an incredible deal of only \$2 a bag.
- Purchasing even more bunches of grapes from the same grapes woman the next week.
- Remembering that one time you went to T&T and bought grapes without looking at the price, only to discover that one bunch would cost you almost fifteen dollars.
- Cursing Galen Weston
- Eating absolutely delicious \$2 / bunch grapes while walking around the market.
- Telling your entire family about the \$2 / bunch grapes. They don't even live in the city.



- Watching yummyPi purchase cherries from the cherries woman for an incredible deal of only \$3.50 per bag
- Watching yummyPi discover the cherries taste like shit.

N THINGS THAT HAPPENED TO ME DURING MY TENURE AT mathNEWS

- told one of the editors i was in statistics (i was not, i was a first year in planning)
- got yelled at by one of the editors for lying about being in statistics
- got article of the issue on my first try (second?) (the betting board at st. pauls) and last article of the issue before pandemic (i think?)
- wrote multiple playlist articles
- shilled the ES coffee shop as the best place to get coffee on campus since math CnD was closed at the time
- applied for editor as a joke
- got editor
- became first EVER editor in the environment faculty
- freaked out about it (bad)
- named myself after my university college, now named "united"
- realized i didn't want to be affiliated with united, the airline
- (should have called myself enved or watershed honestly...)
- spent two months not knowing what i was doing
- spent my editorship mainly reviewing articles and financing farahs runs
- one time played overwatch during a meeting
- formulated a "plan" to take over the math faculty
- dressed up as a pilot during halloween 2022 (i think?)
- saw multiple editors come and go :((i miss you all
- realized i was about to become the most senior editor if i stayed and that was NOT it
- stepped down (i was going to fort mcmurray anyways)
- got one last AOTI
- spent my last semester in waterloo chilling
- had fun :D thank you for everything
- said bye

skit (uknightED)

THE PERFECT CAMPUS SNACK

BBQ eel onigiri + medium roast coffee with one splenda and almond milk.

best enjoyed during the late afternoon in STC.

EVEN MORE BLUE JAYS RADIO COMMERCIALS RANKED

Yes, there's more (see 155.1 and 155.4 if you don't know what I'm going on about). I have not yet exhausted the genre, though I admit that I may have exhausted the readers.

First up, there's another unhinged Subaru ad, folks. It's almost as if they know that if they just say random nonsense then more people (me) will give them free publicity. Anyway, this one is some guy talking about how he's "squeezed more value out of summer" with his Subaru, because with it he went on a hike, fought a bear, "tried Ethiopian food for the first time, wrestled a chihuahua, got a quick tetanus shot," etc. etc. He ends this wild list very casually with "It was a good Tuesday."

Already this is a little wacky, but it gets better (worse?) because I skipped over something in his list (in addition to the boring ones I forgot). He also recounts that he "ran into three white squirrels mating." I've heard this ad a million times and never noticed that it was three squirrels. Was it a squirrel threesome? Did he see the squirrel husband turn around and cheat on his squirrel wife with some third squirrel? How else would this add up to three? I welcome alternate explanations.

On a different note, Pizza Pizza is running an ad for their "fixed-rate pizza," in which they promise that the price of their large three-topping pizzas will be fixed until the end of 2024 to combat inflation and rising costs of food. It's voiced by Buck Martinez, which is actually pretty fun because he's one of the Blue Jays TV presenters and has a relatively distinctive voice, which works in his favour for a radio ad.

The problem I have with this one is that it just makes no sense baseball wise? The set-up is that fixed-rate pizza is playing a baseball game against inflation, which... sure. But as he describes it, "Inflation stands no chance against this all-star [fixed rate pizza]. Inflation strikes out! That's a swing and a drive for fixed rate pizza." Inflation striking out **is** a swing and a drive for fixed rate pizza? Those can't happen at the same time! I mean clearly they're different actions, let alone the fact that both teams would have to be up to bat simultaneously. There is no distinction in his voice or pacing to indicate that these are separate events. I also considered the fact that he might be intending to say that inflation (pitcher) strikes out fixed-rate pizza (batter), but that would be a bad thing from the perspective of Pizza Pizza so they definitely wouldn't say it so happily (and fixed-rate pizza still wouldn't be able to get a hit in the same at-bat). Sure, maybe some random Pizza Pizza copywriter didn't think this through, but Buck Martinez, you should know better!

Lightning round—honourable mentions:

Sunwing's ad for their all-inclusive vacations that says "Beach? It's time for a reality check. You need a vacation." The lady voicing it sounds like she's having fun. I appreciate the playful almost-swearing.

Access Storage: why are you still running your spring cleaning ad in late July?

Two Men and a Truck have a great jingle (which I was going to write out, but ultimately, you really need to hear it to appreciate it) and they also have Mikey defibrillators on board all their trucks which is pretty cool of them honestly.

normalparameters

N MORE THINGS FROM A FOLK MUSIC FESTIVAL

A LONG AWAITED SEQUEL

It is again time for my yearly pilgrimage.¹ I offer you this humble list-icle.

1. A conga drumming workshop which included a single, very cramped, conga line
2. An EDM set that was entirely glow in the dark. two gogo dancers on stage wore slinkies (yes the toy)
3. A cool beer in a somewhat gross lake is the best way to spend an afternoon
4. A stand up comedy hour with two different comedians named Ben
5. Many sad vegetarian whole wheat wraps for dinner with the same broccoli salad
6. The mosh pit at the NOBRO set
7. My broken glasses after the mosh pit (worth it)
8. Instantly falling in love with the guitarist from the Riot Grrl band²
9. Seeing my MPP at the volunteer tent. He gave me some much needed sunscreen. I love you Mike Schreiner
10. Bubble guns. Need I elaborate?
11. The Sunday morning gospel session. Not at all about Jesus, but all about love. One person played Rainbow Connection and I definitely didn't cry shut up
12. The DIY up-cycled collage journal I made
13. A puff of a joint that I traded a swig of beer for, in the lake again
14. The dream I had to get a hot dog again and the pens I was willing to trade for it
15. An idea of a hot dog since I was too tired at 1am to actually leave my tent and get one
16. The memories I made with my friends
17. The new friends I made

Conclusion: The world continues to be kind and weird. It's full of love. Just like me. Just like us <3

rockfacts

1. A companion piece to *N.Things from a folk music festival* published in 152.6
2. What can I say? Women who play guitar are hot

RANKING MY HEAD INJURIES

So.

I like living life on the edge, and sometimes it does not end well for me. I've hit my head a non-trivial number of times and have had a lot of discussion happen about it, enough for me to decide to rank my head injuries. Now, before we begin, I just want to make it clear that I will not be ranking every time I've had something hit my head. That is a long list. This is just the things that could be considered major (and also the only ones I could remember at the time of writing). Without further ado, let's get into it:

5. Sometime in 2009, I was running in the hallway in my house and decided to turn into my room but there just wasn't enough time for me to turn safely (i'm fast as fuck) so I slipped and hit the ground, chin-first. It burst open and there was blood everywhere and I had to get stitches and the scar can still be seen on my chin when I freshly shave. In terms of blood and pain, this was pretty good, but the fact that it was just the chin makes it my least favourite because it's only a head injury because of a technicality. (I mean, is the chin a part of your head at all?)
4. 2019. Grade 9. Some idiot (me) tried to make everyone believe that banging your head on the wall is pretty cool and ofc a few of my testosterone-ridden classmates joined because they wanted to show how tough they were. I was ofc the undefeated champion and was feared by everyone because no one could beat me (i did it the most frequent and hardest) and by the end of this three-month saga, my head felt very potato-like. It's not as brutal as the other injuries but it's just funny. It's higher than the previous one because this one is more head I guess...

Anyway, on to the more interesting ones.

3. January 24, 2020. A couple months before the beginning of lockdowns and also before my grade 10 final exams. Grade 10 is considered a big milestone back in India and the exams are nationwide. It's also the point where the people you've seen your whole life start going to different high schools based on their interests. So before the exam hell began and we were all strangers, we decided to have a "scribble day." We wore our white shirts from school uniform and let our friends write messages on it and also had Holi colours and music, on a road near our school. I had to leave for a few minutes (on my scooter) with a friend and when we were coming back, he was like "Why are you driving so slow?". Now ofc I took offence to that went full throttle. What I had forgotten was that my scooter's brakes were not the best and there was no way I would have stopped in time to avoid the people standing at the end of the road.

So I decided to turn, but there was some sand on the side of the road due to construction, which made me slip and fall, at very high speeds. I mostly injured my arms and legs but there a small scar above my left eyebrow. The guy sitting behind me had to get stitches on his head though. This is not the best as a head injury for me, but it was still pretty stupid and the risk factor was high so I am putting it up here.

2. Somewhere between 2009–2012, I had a small (non-rocking) chair on the bed and I was rocking it back and forth. At one point, I rocked it back too far and lost balance and fell and hit the back of my head on the edge of the brick counter. Ofc it popped open and I had to get stitches but it's all under my hair and not visible. Overall very painful and eventful and I am 90% sure it had lasting effects, making it number 2.

Before we get to my favourite, I have a few honourable mentions.

- I very vividly remember slipping and rolling down half a flight of stairs in around grade 4–5 but idt my parents remember it and I cannot remember ever dealing with the consequences of that so I'm not a hundred percent sure if it actually happened.
- This February, I went curling for the first time in my life and at one point, I fell. Not while running. Just walking to my position. I just got up and walked to my position anyway and waited for people to begin but they didn't and I looked up and they were all staring at me. Brad Lushman asked me "You hit your head. Are you okay?" Up until this point, I had not realized I had hit my head and the funny part is that Brad doesn't remember ever curling with me so even though my friends say that I had a concussion and should have gone to the doctor, they have no proof.

Now, finally at number one...

1. 2004. I was an idiot baby, who kept rolling off the bed while napping. So one day, my mom decided to make a stack of pillows on the side of the bed to prevent me from falling. But I was a smart idiot baby, so I somehow climbed over the wall of pillows in my sleep and fell head first. The increased height made it so that I was bleeding too much and as a 4–5 month year old who didn't really have a face, the doctors could not do much about it. I obv don't have any memory of this, but I do have a slit on my right eyebrow in all my pictures and stories from my parents to back this up. And since this is when I feel like it all went wrong in my head, this is number one.

A CENTURY OF BRITISH COLUMBIA'S POLITICAL PARTY SHENANIGANS

This can be considered a follow-up to my previous message reminding my fellow British Columbians to register to vote¹ before the provincial election this October!

At the moment, four political parties hold seats in the BC legislature:

- New Democratic (NDP)—**55 seats**
- BC United (BCU)—**24 seats**
- Conservative—**4 seats**
- Green—**2 seats**

This, in addition to two independents who resigned or were removed from the NDP, makes for a total of 87 seats. The upcoming vote to elect the 43rd parliament of BC has 93 seats up for grabs because of electoral redistricting, with either the NDP or the Conservatives expected to win.

If you're familiar with British Columbian electoral history, this may surprise you—*the Conservatives have a chance to win? They haven't won a general election in their own right since 1928, and have not even won a seat since 1975... how do they even have seats right now?*

If you're an Ontarian, you may be even more surprised—*the NDP win elections? What do you mean the conservatives have not won a seat since 1975? Where is the Liberal Party?*

To this, I would lament how little Ontarians know about Western Canada.² There is a century of shenanigans to catch up on...



In 1932, the Co-operative Commonwealth Federation (CCF) was formed in Calgary by co-operative, labour, socialist, and agrarian groups in part to combat Western alienation.² The British Columbia Section was set up just in time for the 1933 BC election to replace the aforementioned Conservatives, who were fracturing at the time. Although the CCF won only 7 of 47 seats despite getting over 30% of the vote, they managed to form the Official Opposition to the BC Liberal Party majority. *Pretty good for a first-time party if you ask me!*

The CCF would maintain 7 seats in the 1937 election, but double their seat count to 14 in 1941. This concerned the Liberal and Conservative parties greatly—enough so that they formed a coalition and ran a joint slate of candidates for the 1945 and 1949 elections... Naturally, the CCF formed the Official Opposition in both instances. Imagine being able to disrupt the establishment enough to make the Liberal and Conservative merge³ :0

Evidently, such a coalition could not last. In preparation for the 1952 election, the Liberal-Conservatives passed a bill switching to instant-runoff voting (IRV); voters would rank

their preferred candidates and ballots for the candidate with the fewest votes were repeatedly reassigned to each voter's next choice until a winner was clear.⁴



Before we continue, readers should be aware of another political party emerging at the time: the BC Social Credit Party surfaced in 1935 following the Canadian social credit (Socred) movement based in Alberta, a province which the Socreds would run thereon until 1971. Although the Socreds would initially support a social credit political economy philosophy⁵, they would rapidly diverge to become a Christian populist group in Alberta. In fact, the remnants of the Alberta Socreds still exist today as ProLife Alberta.

The BC Socreds were rife with factions that regularly formed alliances and fell apart, never winning a seat in the legislature. Eventually, they were led into the 1952 election under the interim leadership of an Alberta MP and reverend, chosen by the Alberta Socred leader to look after their smaller sister movement in BC.



Going into the 1952 BC election, the Liberals or Conservatives were expecting to win. Recall they had changed the voting system to IRV so that their respective voters could list the other party second, hoping to keep the CCF out of power. In some ways, it worked: the CCF was narrowly defeated to form the Official Opposition once more. However, the winning party was not the Conservatives or Liberals, but rather the British Columbia Social Credit Party. Having received 30% of the vote and 200 thousand more ballots than in the previous election, they would form a minority government without even a party leader, thanks to citizen's choices in instant-runoff voting.

The Socreds quickly chose constituent William Bennett to be Premier, due to his previous experience as a Conservative; unfortunately for any social credit believers, he rapidly converted the party to a right-wing populist movement. Bennett would deliberately lose a confidence vote in 1953, forcing an election and obtaining a majority. He would then eliminate instant-runoff voting.⁶

The BC Socreds would become a socially conservative party, running the province until 1991 for all but three years during which the former CCF—now reformed as the NDP⁷—took power despite the Socreds' redbaiting. Meanwhile, the Liberal and Conservative parties fizzled out.



A scandal would stop the Socreds from winning to the NDP in 1991, with the party losing all their seats in the next five years.

Many Socreds would go on to join the revitalized BC Liberals, which had recently separated from the federal Liberals. In fact, the BC Liberals would shift to a right-wing party, filling the void left by the Socreds. *You heard that right — while in power from 2001 to 2017 in BC, many BC Liberal candidates held views against abortion and climate change. Liberals!*

This may have been accelerated by the BC Greens, which attracted more of the centre-left space. The BC Liberals would eventually find their downfall when the Greens gathered enough seats to form a confidence-and-supply agreement with the NDP, forming a government in 2017 despite the Liberals having a plurality of seats. This was the first time the Green Party held a balance of power in any Canadian legislature!

Having lost the 2020 election to the NDP, the Liberals sought to rebrand two years later⁸ as the BC United Party. This has proved disastrous and they are in fact not united: their polling has dropped below the Greens and four members have crossed the floor, reviving the BC Conservative Party. Thought as more socially conservative than the BC Liberals, their leader John Rustad comes from the faction of the party expressing views from two paragraphs prior. Attempts were made to reunite the former BC Liberals with the new BC Conservatives, but unfortunately, the leaders of each party hate each other.

This marks the current situation in the BC Legislature, with everything soon to be redone.⁹

Whole Number Haver

1. <https://eregister.electionsbc.gov.bc.ca/ovr/welcome.aspx>
2. This phenomenon was actually taught in my BC highschool! Namely, it is the notion that the Western Provinces (BC, AB, SK, & MB) are politically underrepresented compared to the provinces along the St. Lawrence River: Ontario and Quebec. The rest of Canada receives economic benefits at Western Canada's expense through means such as resources and equalization payments. This is called Western alienation, whereas those responsible for pushing Canadian business, culture, identity, and media from Ontario and Quebec viewpoints are referred to as the Laurentian elite. Please learn more about Western Canada ♥ (reading this article counts)
3. Admittedly, this is not completely unheard of; the Unionist Party formed by the Conservatives and much of the Liberals won the 1917 federal election following the Conscription Crisis of that year.
4. In addition to being used to elect Australian MPs, the President of India, and the President of Ireland, it's also one of my favourite voting systems!
5. Social Creditists believed in giving basic income to all citizens to overcome a gap between the total money available to consumers and the cost of all goods & services in the economy
6. British Columbia would try to change their electoral system to a single transferable vote (STV) system by referendum in 2005, in which 57% of voters were in favour. However, this did not pass the required threshold of 60%. Thus, another referendum was held in 2009, where the idea was rejected. BC then held another referendum on proportional representation in 2018, which did also not pass. One of these days...

7. Technically, the federal New Democratic Party and its provincial associates were formed in 1961 with the merger of the Co-operative Commonwealth Federation and the Canadian Labour Congress. The NDP ran BC under Premier Dave Barrett from 1972 to 1975.
8. This is actually a common pattern across Western Canada when conservative parties lose to the NDP.
 - The Yukon Progressive Conservatives rebranded to become the Yukon Party in 1991 after losing to the NDP two years earlier.
 - The Saskatchewan Progressive Conservatives and Saskatchewan Liberals rebranded to become the Saskatchewan Party in 1997 after losing to the NDP two years earlier.
 - The Alberta Progressive Conservatives and Alberta Wildrose Party rebranded to become the United Conservative Party of Alberta in 2017 after losing to the NDP two years earlier.
 - We'll have to wait until 2025 for Manitoba I guess...
9. If you live in British Columbia and are eligible to vote, please do so in the election — no matter your stance on politics, it is a privilege to take part in democracy... If you do not know who to vote for, then I will tell you what I tell all my friends: spoil your ballot! Draw obscene figures! Cuss out your local politicians! Write a **mathNEWS** article on your ballot! This applies to the upcoming federal election as well :)

DEPRESSED UNEMPLOYED UNDERGRAD THEME

TO THE TUNE OF "TODAY IS GONNA BE A GREAT DAY (PHINEAS AND FERB THEME)"

There's a hundred and four roads of gentrification
And school's the reason that it started
So the annual problem of our generation
Is finding a good place to rent in
Like maybe

Building a chair bed inside MC Comfy
And showering inside E7
Discovering something that doesn't exist
A one-bedroom sanctified heaven

A basement five-room suite
Finding cockroaches
Inside a mysteriously clogged drain
Paying 2k while
Painting over mould
Praying your roommate's not insane¹

As you can see there's a whole lot of rent to pay before school starts this fall
So stick with us cause depressed unemployed undergrads are gonna do it all
So stick with us cause depressed unemployed undergrads are gonna do it all

nike

1. <https://kitchener.ctvnews.ca/arrest-made-in-stabbing-at-university-of-waterloo-residence-1.5977760>

YOU CAN GO TO BUFFALO, NY FOR \$19.90

That's the round trip cost, not just one way. Cheaper than going to Ottawa or probably even London. And it's easy:

YOU WILL NEED

- A passport that gets you into the US
- A passport that gets you into Canada (these can be the same passport)
- \$1 in coins (either CAD or USD)
- A GO Transit weekend day pass (\$10) (oh yeah, this only works on weekends btw)

THE GAME PLAN

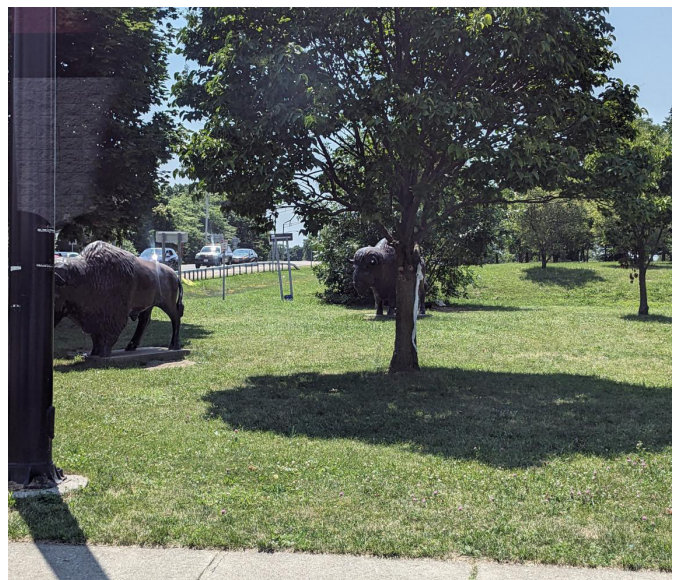
- Take the **7:00 AM route 25 GO bus** from UWaterloo Station to Square One. It'll get there at around 8:35.
- Cross the street from the GO bus terminal to the MiWay bus terminal and hop on **route 2** towards Port Credit. This costs \$3.40 on Presto
 - Ugh so like a year ago this step wasn't even necessary and you could just take a GO bus from Square One to Port Credit but for some reason the riders of that bus decided they liked getting stuck in Gardiner traffic and wanted the bus to go all the way to Union instead of Port Credit even though they could have just gotten on the train to Union at Port Credit that the bus was perfectly timed to meet and not gotten stuck in Gardiner traffic. Anyway yeah you have to spend \$3.40 extra now to get to Buffalo.
- Catch the **9:27 AM Niagara Falls train** and ride it to Niagara Falls.
 - If you're looking at the schedules, you might be tempted to get off the train at Burlington and transfer to the bus that also goes to Niagara Falls, which is supposed to be 20 minutes faster. I did this and my bus driver for some reason decided to take the lift bridge over Burlington Canal instead of the bridge that does not lift that is literally right there, and delayed us for an hour because a boat decided to come by. Not recommended.
- Take the free **WeGo shuttle bus** to Table Rock Centre.
- Walk across the Rainbow Bridge. You get a really pretty view of the falls here! You'll have to pay your \$1 cash fare before you enter, but the return journey is free.
- Tell the US border services agent you're on an adventure.
- Once you're in the States, take the **NFTA route 40 bus** towards Buffalo. It costs \$2 USD, which is about \$2.75 CAD at the time of writing.
- You're in Buffalo!
- To get back, take the **5:40 PM route 40 bus** back to Niagara Falls, New York (\$2 USD again). (You can leave later but if you miss the next bus you'll get

back in Waterloo super late, and your route home might change.)

- Walk across the border again. There's a much shorter line to enter Canada than to enter the US, probably because the Canadian border agents give people less of a hard time.
- Once in Canada, walk up Kitchener Street towards Stanley Ave. You get to see the part of Niagara Falls that's like 2 blocks outside the touristy area but looks like a post-apocalyptic ghost town.
- Find the GO bus stop at Stanley Ave and Hwy. 420 (west side of the street) and catch the **8:19 PM route 12 bus** towards Burlington GO. (If you run, you might be able to catch the 7:19 PM bus and get home a little earlier.)
 - I was still annoyed at my 12 driver from earlier so instead of doing this, I ran to the train station and caught the train. This also works but it costs another \$3.40 (you have to take the MiWay bus again) and gets you into Waterloo at 1:45 AM.
- Get off at Dundas St. @ Hwy 407 Park and Ride and transfer to the **40** towards Square One. I've never been to this Park and Ride, so if you end up here, let me know what it's like.
- Take the **25** towards UWaterloo Station. It'll get there at 12:50 AM.

NOTES

- Buffalo is pretty cool. If I were forced to move to an American city I wouldn't mind it being there.
- Trains make me super productive for some reason. I watched two weeks worth of lecture videos.
- I found the buffalo:



- Buffalo has a subway! It's a very strange one: the downtown portion runs in the centre of the street like the ION, except they're currently in the process of converting that portion to allow cars to drive on

it for some reason. The rest is underground and basically what you would expect from a normal subway, except the trains only run every 20 minutes and neither the screens on the platforms nor the Transit app tells you when the next train is coming. A bunch of the line was under construction (partially to allow cars to drive on the tracks lol) so maybe that's why.

- It is very easy to get stuck inside the Buffalo subway if you buy a fare on your phone. There are fare gates that you have to tap to *leave* the station, not just to enter, and there's no Wi-Fi or cell reception in the stations, and if the app on your phone closes you need internet to load the fare. They have signs warning you about this on the station doors. Personally, I would solve the problem instead.
- The Buffalo buses have Wi-Fi, but the subway stations don't, despite it being much easier to install Wi-Fi routers in a building than a moving vehicle. Honestly, if I lived here, I might just take the bus instead even though the train is faster.
- The American side of the pedestrian section of the Rainbow Bridge has like five times as many border agents as the Canadian side and asks you like five times as many questions. (For reference, I'm a dual citizen.)
- Americans sure do like to do stereotypically American things like watching Trump rallies on their phones in the park with the speaker on.
- Buffalo was having a weirdly overmanaged food festival when I went that required you to buy tickets like a carnival instead of paying normally. I got what looked like a challenge to create the smallest-possible meatball sub with a normal-sized meatball. Was somewhat underwhelming.
- Buffalo has Tim Hortons! If the anticipated lack of Tim Hortons was the only thing preventing you from going to the States, there you go.
- The University of (at?) Buffalo doesn't keep any of its buildings open during summer weekends except for the library :(
- They have a really pretty library though :)

__init__

I WILL NEVER EMOTIONALLY RECOVER

from being asked at the MathSoc general meeting:

"Are you still a Faculty of Math Student? Your email lists you as in Chemistry."

What a lightning bolt. I have become the very thing I swore to destroy.

LCBO 404 — FOUNDATIONS OF ALCOHOL ACQUISITION

A topic oriented course examining the transfer of hundreds of millions of LCBO profits from a cash-strapped healthcare system to wealthy grocery store owners facilitated by the Ontario PC government.

Problems are selected from a list that includes unchecked underage alcohol purchases, confrontations when purchases are denied, hazards posed to both employees and shoppers from brazen thieves, unruly customers who can't find their favourite beverage, and long lineups caused by cashiers being asked to pair wines with customer grocery purchases.

Students will examine first-hand the detrimental closing of hundreds of LCBO stores leaving thousands of workers without jobs who were at one time declared essential during the COVID-19 pandemic.

The format assists the student in an attempt to understand the Ontario PC government's "Alcohol Everywhere" policy.

PREREQUISITES

Complete all of the following:

- **DOFO 000** — Finding solutions to problems that don't exist.
- **SUDS 001** — A retrospective look at the failure of the buck-a-beer initiative simply due to brewers needing \$2 to \$3 a beer to be profitable.
- **SCI 042** — Examining Ford's "Uncertainty Principle": the more it costs, the less is known about its completion.
- **MDH 407** — Utilizing 100 year leases to short change the public purse by billions.
- **ECON 666** — Running a government without taxation, leading to massive deficits.
- **GBLT 777** — Lucky insider's guide on how to benefit from land whose value suddenly increases several times over.



I LISTENED TO EVERY WEEZER ALBUM

Preface: I would like to start by apologizing to ___init___ for stealing their Sufjan Stevens thunder some issues ago. However, I must admit it was flattering that someone considered riffing off my style. Thanks to the readers and editors for tolerating this craziness. See you next term for more...

To celebrate the 30th anniversary of their debut record and their upcoming Toronto concert that I'm embarrassingly excited to go to, we're going to keep it weezy.

Blue (1994)— Besides being an excellent first album, *Blue* is the result of four white dudes jamming out and having fun, and its cover has spawned both an ongoing series of coloured self-titled releases and an incomparable meme format. Throw this on at a party to get the nerds singing (I speak from experience, I may or may not be nerds).

Pinkerton (1996)— Take *Blue*, then make it heavier, more emo, and slightly more insane, and you have *Pinkerton*. Rivers Cuomo gets personal at only album two, and then seldom again afterwards. I don't find it relatable per se, but it's hard not to sympathize with the candid struggles presented in the lyrics. It's a killer album and probably one of my all-time favourites.

Green (2001)— Hip hip. *Green* is known for its fourth track, "Island in the Sun," and rightfully so since most of the other tracks lack the same charm. It's the first example of what I like to call the Weezer Album Cosine Curve (WACC): strong start and finish, meh middle. It also is the shortest of their records, so if you want to dip your toes into the Weezer pond without staying at the pond too long, give *Green* a go.

Maladroit (2002)— It's standard Weezer with more metal riffs and a more cohesive vision across the board. No complaints from me; it sounds awesome, gets your feet tapping and has some of Rivers' best vocals yet. An underrated album, in my opinion.

Make Believe (2005)— I hesitate to call this bad, because it's not. It's just nothing special. I didn't even know "Beverly Hills" was a Weezer song until the album started, which is funny to me because my mother would play it in the car when I was younger and I cannot imagine my mother listening to Weezer. Perhaps the most extreme example of the WACC.

Red (2008)— I'm gonna say it: Rivers looks hot in the cowboy outfit and it's what drew me in initially. Continuing with the colour theme, *Red* experiments with longer, more progressive songs and allows the other band members to get behind the microphone. I admire the creativity, but I wish it was executed a bit better.

Raditude (2009)— This isn't nearly as bad as the internet makes it out to be. It's a far cry from something like *Blue* or *Pinkerton* but there's some fun moments to be had, even if they're immediately followed by strange musical

choices. Like, why is Lil Wayne here? He stopped the party as soon as he showed up.

Hurley (2010)— After the opening track steals the show, it's hard for any of the others to take it back. *Hurley* is another one of those records that sounds great as a whole, but never ups the ante enough for any of the songs to stand out. Whenever I think of *Hurley* I think of the goofy album cover and not the actual music.

Everything Will Be Alright in the End (2014)— There are so many cool ideas explored here and none of them feel unnecessary. Another guest is brought in to sing along (shout out to Best Coast), the progressive rock of *Red* is back in the form of the Futurescape Trilogy, and the instrumentation is reminiscent of Weezer's earlier brand of alternative rock, rather than the pop rock that would be adopted afterwards.

White (2016)— It only took eight albums for me to feel the same rush of adrenaline that I feel whenever I put on *Pinkerton*. Deemed a "beach album" by the band, *White* is an intelligent yet playful callback to Weezer of old, almost acting as a maturer version of *Pinkerton*. It tells a similar story while being its own book.

Pacific Daydream (2017)— I really don't care about this. Random pop trends were inserted into fairly harmless Weezer tunes and it feels... weird. I don't like it. No more, please.

Teal (2019)— It's a covers record, so it's hard to be blown away by anything. Their take on "No Scrubs" is surprisingly pleasant though.

Black (2019)— I get it now guys, you subverted expectations by making *White* the rock album and *Black* the pop album! Truly ingenious. I anticipated not enjoying this very much, but I had a good time. The pop sounds are more unique compared to *Pacific Daydream* and don't feel like they were shoved in where they don't belong. The WACC is not as steep, if you follow.

OK Human (2021)— Weezer are Radiohead fans confirmed??? Perhaps their furthest deviation from their standard rock sound, *OK Human* channels both piano rock and chamber pop, which is quite the breath of fresh air after some underwhelming past releases. It's a style that I hope the band pursues further at some point.

Van Weezer (2021)— "Pump it up into me / Please, daddy, please daddy." Need I say more?

FINAL RANKING AND FAVOURITE SONGS

1. *Pinkerton*— "The Good Life"
2. *Blue*— "Undone—The Sweater Song"
3. *White*— "California Kids"
4. *OK Human*— "Bird With a Broken Wing"
5. *Maladroit*— "American Gigolo"

6. *Everything Will Be Alright in the End*—“Go Away”
7. *Black*—“Byzantine”
8. *Hurley*—“Memories”
9. *Red*—“The Angel and the One”
10. *Van Weezer*—“1 More Hit”
11. *Green*—“Island in the Sun”
12. *Teal*—“No Scrubs”
13. *Pacific Daydream*—“Beach Boys”
14. *Raditude*—“Put Me Back Together”
15. *Make Believe*—“Haunt You Every Day”

JP

AN UPDATE ON MY FAILED COURSES

FOR THOSE WHO HAVE BEEN FOLLOWING MY mathASKS QUESTIONS

I’m going to be taking the supplemental exam for chemistry (CHE 102) at the start of August. I feel confident that I can do better than last term in the class if I can actually get it together and study. Here’s hoping executive dysfunction from my ADHD doesn’t kick in and prevent me from studying until the day before the exam.

Not that that would be new to me, of course. I’ve dealt with this for my whole life, and up until this first year of university it’s always worked out well (or at least fine) for me. I now get to try to learn all the study skills that have apparently been slowly introduced to and practiced over time by the majority of people all at once. It’s... not a fun experience. But at least even if I fuck it up again this time, I’m already scheduled to retake the course in the fall term anyway.

Speaking of retaking courses, that is what I intend to do for ECE 140. I’m planning on taking the course over the Winter 2024 term so that it can be my only focus outside of co-op, which will hopefully allow me to actually pass this time. I also hope that I will have a different professor, because, to put it lightly, the professor I had for this course the first time around made the course infinitely more difficult for me. I highly doubt it was intentional, but intention doesn’t change the outcome.

Also, can any upper years advise me on whether I’ll need to redo the lab component if I passed that section? I want to try to avoid a 12–13 hour round trip every two weeks for labs I’ve already done. Otherwise, will I be required to redo the other assignments as well? If you have any of this info, it would be greatly appreciated if you would shoot me an email at kayliafsubmissions@gmail.com.

Sexy_Software_Babe

MY NAME

jeff.

It’s actually *remarkable* how unfunny this meme was. It’s just a guy from *21 Jump Street* saying “my name is Jeff” in a funny voice. Like, had I watched the movie, I imagined there’s a chance I might’ve exhaled a little during that bit, but certainly nothing more. It’s a throwaway gag. And yet, it caught on like fucking *wildfire!* Like, it was just *everywhere!* YouTube feeds flooded with shit like “NEW My Name is Jeff Vine Compilation BEST FUNNY Vines of 2015 HD ✓✓✓,” despite the meme having near *zero* transformative value. You can’t meaningfully remix it. The punchline is just a guy saying “my name is Jeff,” and that tends to double as the setup too. I was in middle school when this shit came out and even *back then* I thought it was terrible. It has no juice. There’s nothing to it. It was V-Day for unfunny people. It really represented the ushering in of a new era of terrible, rotting-on-arrival comedy that came with Vine and the like, right on the tail end of “top text/bottom text” image macros. It was so fucking awful. I would be on the bus home from school and I would hear “my name Jeff” videos playing from three phones at once. Like, *yes*, we were children, but still—*what the fuck was going on?*

That’s where my stupid ass writer name comes from: the worst joke in the fucking world. I can’t tell if this is a point of pride for me or a point of personal failing. Man. Do you think it’s too late to reconsider?

jeff

IN THE GAL(F_q^N/F_q).

STRAIGHT UP “AUTOMORPHIN IT”.

and by “it”, haha, well. let’s just say. My frobenits

χ

LINEAR LOVE STORY 3

Two planes

$$\begin{aligned} -7x - y + 8z &= 10 \\ -19x - 7y + 11z &= -5 \end{aligned}$$

might take a long time,
searching for each other,
but eventually find a span,
an infinite stretch of moments,
where without worry,
they can hold one another forever:

$$(2, 0, 3) + (3, -5, 2)t, t \in \mathbb{R}$$

Totally Ununimodular

I AM (A) HOME

I DIDN'T GROW UP TAKING PUBLIC TRANSPORTATION

DURING MY TIME IN UNI THOUGH, I'VE TAKEN IT SO OFTEN THAT I CAN'T HELP BUT ASSOCIATE IT WITH THIS TIME OF MY LIFE

LATELY I'VE BEEN AWAY FROM THE PLACE I'VE CALLED HOME FOR FOUR YEARS, A PLACE SO IMPORTANT I CAN'T PUT IT INTO WORDS

AND NOW THAT I'M PASSING BY FAMILIAR SIGHTS I FEEL STRAN

OH!

I REALLY DIDN'T REMEMBER MY OLD SCHOOL WAS BY THE TRAIN TRACKS

IT'S HARD TO EXPLAIN WHY IT'S NOT JUST ANOTHER STOP

MAYBE IT'S PROOF THAT I'M FURTHER THAN WHERE I STARTED, WHATEVER FURTHER MEANS

OR MAYBE IT'S SIMPLE NOSTALGIA, MAKING ORDINARY THINGS SO REMARKABLE THAT I'VE GOTTEN A LITTLE TOO CLOSE TO THE GLASS

an amazing person works here
Someone's first job
first date?
regular meetup spot with friends
best coffee in town
dream business
Some backwater cafe

Suburban hell
Wires someone worked hard to put up
they live down here
Someone's childhood hockey rink
A 5 yr old climbed this tree
bought clothes here
favorite team?

favorite type of sky?
Someone's first condo
Someone's last condo
tiny river
Another train of people watching?
where they picked flowers
bird nest
Duck watching spot

THE PLACES

family meetups
Fraser lake
Montreal
Where I went for my dream job
Where I saw a future for my self for the 1st time
I have friends and family here
Kingston
I was born here I lived here for 17 yrs
Waterloo
Toronto
Mississauga
Okville
High School
I became an adult who I am better person here
start travels here

THE PEOPLE

Family
Inspirational Strangers
Lessons
Those who left too soon
lazy mornings
draw them obsessively
mentors
Friends

THE THINGS

from last year on!
always have
my first electric
favorite style
wildflowers from childhood park

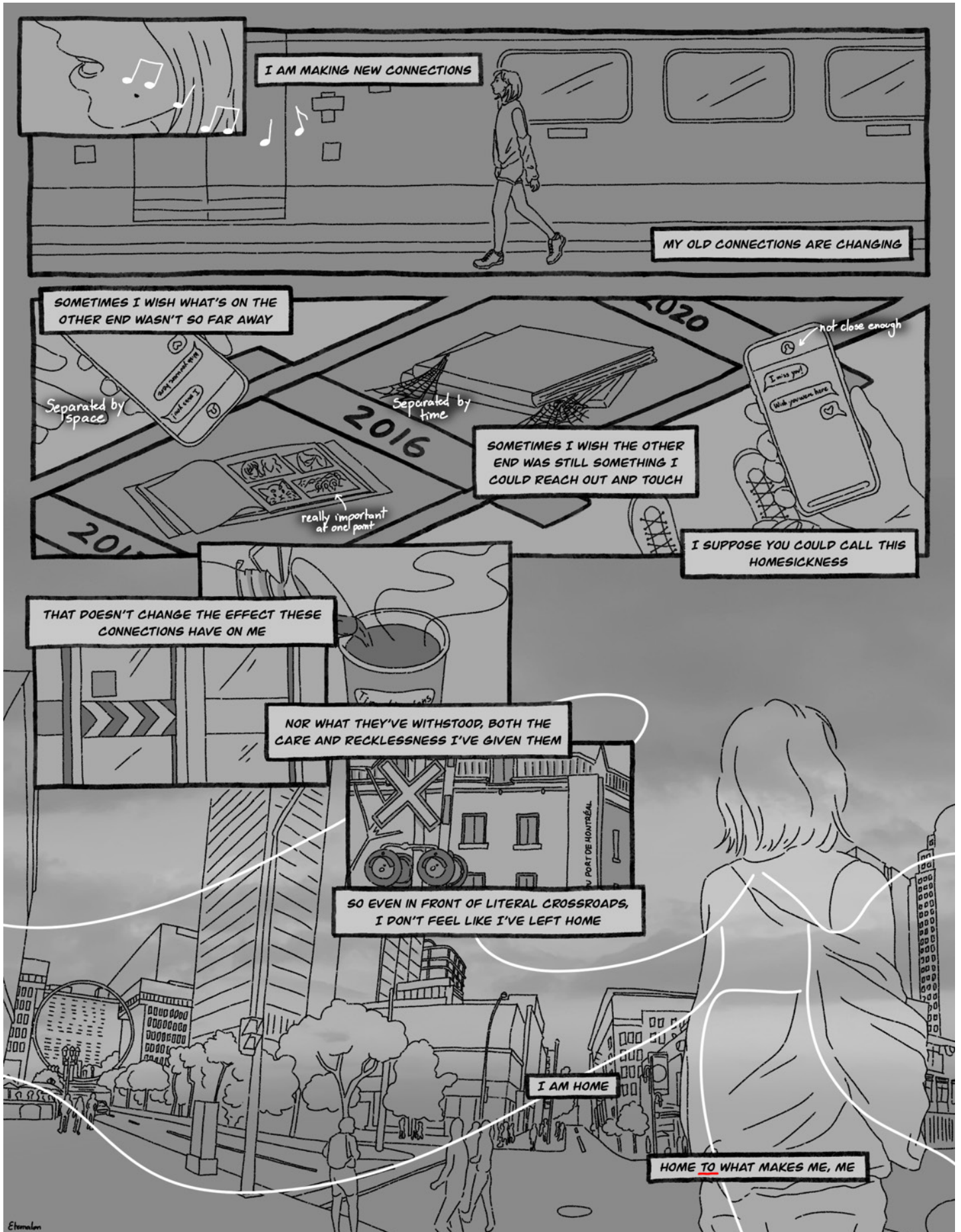
MAYBE EVERYTHING I'VE PASSED BY IS REMARKABLE

MAYBE HOME ISN'T ONE THING, BUT INSTEAD RELATED TO OUR CONNECTIONS

MAYBE EVEN JUST HAVING THOSE MEMORIES IS A BIG PART OF HOME

I GUESS IN THAT CASE I NEVER LEFT HOME AT ALL

I'VE DONE SOMETHING ELSE



WHAT SHOULD WE FEAR IN A CHANGING CLIMATE?

A PERSPECTIVE ON "PERSPECTIVE"

Why should we fear climate change? For what I assume is most of **mathNEWS'** readerships' entire lives, climate change has been brought up as an all-encompassing evil that could destroy the whole world. However, maybe as an effort to spread wide awareness and restraint from scientists to attach a full certainty to direct causation, I feel many view climate change as an existential or philosophical threat to humanity and/or the world.

Why should we fear climate change?

Many might say that the viability of life's continued existence on Earth is threatened. As the world's biodiversity declines, many scientists say that we have entered the "sixth extinction period" in the 4.6-billion-year history of the earth. Previous iterations of the previous five "mass extinctions" have included the K-T extinction, known as the death of the dinosaurs and the Permian extinction, which killed off 90% of all species living at the time.

However, the notable thing about all of these mass extinction events is that life has continued. Even 252 million years ago, when the Siberian Trap volcanoes erupted, raised temperatures by 15°C, and started the Permian extinction event, 10% still carried on and established the world that we live in today. It is a tragedy that so much beautiful and unique life is doomed to be lost, and maybe should be fought for in their own right, but it is unrealistic to think all life will die in the way that many do.

Why should we fear climate change?

Others may say that they fear the extinction of the human race. The climate could warm by 4.5°C by 2100. In this case, crops die en masse. Many places become unliveable and resources are scarce. Society crumbles on its own or is nuked out of existence. Humans can't survive in the harsh environment they've created and go extinct. However, this is not what many experts fully expect. Humans will go extinct eventually, but the species has survived extreme challenges before, and I expect them to scratch and crawl their way through it.

In this way, I agree with *Perspective*: humans are resilient, life in general is even more so, and it is likely that both will survive climate change, albeit in a very tattered state that could take millions of years to repair.

However, I think that this "existential" perspective many take when viewing climate change has been actively harmful to our fight against it. Through this viewpoint, climate change is either a nearly unsolvable existential threat to the continued existence of humanity, or something that'll balance itself out in 500 years time. And if it and its impacts are so detached from the realities of your present life, why bother to do anything about it? It is an especially unhelpful viewpoint, as

many do not have the time to wax poetic about these large questions and are instead facing urgent threats.

Why should we fear climate change?

In the late Medieval era, and throughout the renaissance, Earth entered a natural cooling period called the "Little Ice Age". During this time average temperatures, especially in Europe, dropped significantly. Unprecedented blizzards, deep freezes, flooding, and crop failure terrorized peasants for hundreds of years. Yet, like many climactic changes, humans survived and carried on. This event is little more than a quaint footnote in European history.

However, that does not tell you European society's reaction to this event. Despotic leaders rose and trampled on the increasingly weak peasant class. Violent crime increased. People began looking for scapegoats. This led to an exponential increase in "witch hunts" and violence/discrimination against minorities, such as Jewish communities, who were blamed for this climactic shift. This needless suffering and scapegoating of those on the margins of society is what really should be feared when it comes to climate change.

This has already started now. Extreme heat and drought have been substantial factors in the refugee crisis that the world has been dealing with, which could reach as many of 1.2 billion people by 2050. War, such as the Syrian Civil War, has been tied to climate-change-driven extreme weather to create the internal discord that could easily ignite fighting. Inuit communities are sinking into the Arctic Ocean, never to be recovered. Whole countries, such as Kiribati, could be completely submerged by water. Yet, many of these people never meaningfully contributed to climate change.

Therefore, what we should fear is not something far off, distant, and philosophical; we should fear what is already happening. The needless suffering by many who have barely ever polluted. The diverse culture, life, and nature that will be lost forever. The question is not who will have our lives reduced to a single breath of some future historian, but instead who will be left to be the ones telling the history?

Lars Nootbaar

Please note, this article is more of a tangent of my own than any sort of "response" to the article *Perspective* by 別 in **mathNEWS** 155.5. The purpose of this article is just to add a differing, hopefully complimentary, perspective on this topic.

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I MISS THE FOOT STUFF

NO NOT LIKE THAT QUIT BEING WEIRD

Alright, I'll be the first to say it: The pandemic wasn't a particularly good time for everyone.

It still feels a little weird to refer to the pandemic in the past tense, since it's by far the largest global event of our lifetimes and it happened during some prime formative years, but I don't think many people would disagree with the statement that the pandemic (or more accurately the reaction to it) ended a year or two ago. Covid isn't gone, it is still very much present in society, but it's not nearly as widely spoken about. To the general population, it has more or less become a flu that comes around once in a while to remind everyone of a very uncertain time in our lives.

Honestly, any discussion about it at all feels wrong. It was like the only thing anyone talked about for two years straight, so no one wants to think about it in detail anymore, more just as a vague, blotch on the calendar where nothing felt right for a couple years. Watching shows and movies that mention it feels surreal now. When Brooklyn 99 or Superstore enter their 2020 seasons and start making relatable Covid jokes, it takes me back to sitting in my bedroom back home, giving myself the dopamine addiction of a lifetime by constantly watching YouTube and TV shows to pass the time. It's like I get to miss the back half of high school all over again, and I can't say that's a great feeling.

"Yeah okay, that's great," I hear you say, "But when are you going to get to the foot stuff?"

Now. I'm getting to it now. Because the one certainty in life is that everyone is gross all the time, during the pandemic many businesses began making efforts to reduce the number of touchpoints people need to interact with. Less hands means less cleaning, so it saved the businesses a lot of time and effort in complying with sanitary standards.

Enter feet.

Some modern Prometheus realized that most people have feet, and maybe they could be used for more than just selling photos of online. They came up with an invention I cherish to this day; the hands-free door handle.

Thanks to this bad boy I didn't need to touch a gross door handle just because it's a pull door. I enter a restaurant and

know I won't need to wash my hands again in their bathroom, because I washed them at home and haven't touched anything since. It was a beautiful thing.

The fire of innovation didn't stop there. Someone invented elevator buttons that are on the floor, so you can just kick them instead of needing to touch a button that has never been cleaned. What a time to be alive! Here I was, thinking the pandemic would be a purely negative experience, when it led to one of the greatest innovations of our time! Cheap and easy to install, surely this object will be a staple on every door for the rest of time!

But then it wasn't. Regulations loosened, and no one wanted to spend extra on their doors and elevators to make me happy (it's not like we're in a recession or something, yeesh). They weren't relevant long enough for most buildings to adopt them, so they're almost nowhere to be seen these days, outside of the odd one attached to the doors of University Residences.

Now I'm back to washing my hands 20 times a day to feel clean, as this beautiful solution fades into obscurity. Goodbye, sweet prince. Hopefully the new generation of building designers will remember you and incorporate you into the doors of the future.

nohands

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UW'S BASTION OF ERUDITE THOUGHT SINCE 1973

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R!&#@\$D

I have a friend called Raymond.

Raymond beheld my amateurish movements in the kitchen with his usual nonchalant expression. He happily trailed behind my clumsy cooking routine just a few minutes prior, talking and joking while causing all sorts of trouble amid the small sun-filled space. My eventual scolding had him idly drag himself atop the tall wooden stool seat, his arms slumped on the countertop, above which neatly sat ceramic dinnerware for two.

Children's laughter travelled alongside the carefree evening air through the bay window we left slightly ajar, the soft summer sun slowly shimmying down to a sound slumber on the other side. The quiet glow illuminated a golden outline around my carrots, onions, and potatoes, which lay naked across the cutting board, quivering in anticipation for their delicious fate.

"We're having stew for dinner," I announced. "Come help me get started."

"I'm not your dog," Raymond said matter-of-factly. "You can't order me in and out of the kitchen."

Indeed, dogs were much more loyal. "Please?"

"Can't. A spider bit my hand."

"Are you serious?"

He asked, "When have I ever lied to you?"

Oh, I thought, I don't know. Perhaps when you vowed to clean up your feelings as we restarted our friendship eight months past your first confession. Maybe amid some faraway conversation where you demanded my honest self in exchange for your termless acceptance of my absolute nature. But more definite is a case proximate to our end, a single flip of a quarter coin, to which you said, "When the coin landed on heads, I promised myself that I would stay friends with you. Regardless of how I felt."

"Sorry," he somehow quickly picked up on this undercurrent beneath my silence. "I didn't mean to make you unhappy."

I sniffed, walking quickly to retrieve meat from the refrigerator, "It's okay. Let's have a good last dinner, hm?" Raymond made an inaudible noise. "Left or right?"

"... Left, I guess." He answered after a while. "God, why are you like this?"

The chunks of meat tidily packaged in the left plastic wrap had a close visual equivalent to veal. Smooth streaks of white fat accompanied the thin veins, dark crimson in colour, in marbling the firm muscle fibres, looking raw enough to whisper sweet promises about a tender, buttery taste. My jagged cleaver knife had created uneven edges that felt sleek

and intimate under my caress. But what transcended the fresh ingredient was its subtle fragrance, pure and clean, with a light creamy note. I would have given it a soft kiss if not for Raymond's judgemental surveillance.

So the meat was diced, seasoned, and later tossed in flour until its blush-pink appearance was almost entirely coated, before it was merrily welcomed into my camomille-coloured Dutch oven, the veggies joining shortly thereafter. Plentiful tomato paste was stirred in, then abundant herbs were committed. I gingerly poured in the beef stock, putting it at a simmer, by the time of which Raymond was bored out of his mind.

"Tell me something funny," he pleaded.

I wiped my hands with a towel. "Well, I had a good conversation with your friend Ryan a day or two ago. He called you brave for cutting off contact with me, actually, that it was courageous to break away from this toxic attachment when he could tell you liked me so much."

"Huh." He paused. "I didn't know Ryan's a real one like that."

"He also told me the best way moving forward is to reciprocate your effort, like even distancing myself from our common friends, which would be everyone. But apparently it's not supposed to be easy. He said the relationship was unhealthy, as you were clearly dissatisfied with friendship, while I wanted no more than that."

"Is that what you're going to do?"

"I asked him what if I changed my mind."

Raymond had no expressions. "What is that supposed to mean?"

"Well, he inquired whether I, like, love you or something. Because I should abandon his advice altogether and run into your arms if that happened to be the case."

"Well?" He asked, "Do you?"

I looked down at the square hand towel. It was yellow, like most decorations in the snug house. "What's the point when you hate me now?"

"Do you?"

I answered, "No, obviously not."

The fair sky turned a pale heather purple when the amber sun met the horizon, as if it feared to be abandoned. We watched it grow darker in despair with each second, blatantly frightened of the long night ahead. I decided to put down the hemp drapes after a long while, and Raymond turned on the mellow pendant lamp before lighting some tall candles in preparation for dinner.

Two big bowls of hearty stew radiated warmth and comfort in the middle of this cozy little feast, served beside crusty bread slices, with roasted strawberry jam and whipped cream as dessert. The occasion demanded wine but all we had was sour pomegranate juice, which nevertheless made me dizzy.

I felt uncharacteristically happy. “I missed you,” I said, “I missed you so much even though you hurt me severely, like no one before, and I’m supposed to be experienced in terms of suffering. You called me a terrible person but you used to love me for it. You’re also a bad person yet I... I’m so glad that you came back.”

Raymond said nothing.

“We just have such good conversations. It’s like discovering how to talk for the first time, like...” I shook my head. “Why aren’t you eating?”

He opened his mouth but looked at a loss. “Well,” he finally managed, “I’m not having anything because I’m fucking dead. You fucking killed me!”

“Have some stew,” I picked out a tender piece of meat for myself, “It’s quite good, erm —”

Oh God, I thought, it was delectable in the strangest way. My stomach churned in its hysterical protest for me to spit the meat out, but Raymond reached a hand over to squeeze my jaw shut. “Swallow.” He said, “You better not waste it, if you’re already ill enough to cook my left arm into a fucking stew.”

So I swallowed. Raymond let go, and I smiled at him teary-eyed after I finally stopped coughing.

“For God’s sake,” he covered his face, “stop imagining conversations with me. You’re so weird. You’re a huge liar and I don’t love you, not anymore. I really do not want anything to do with you. You —”

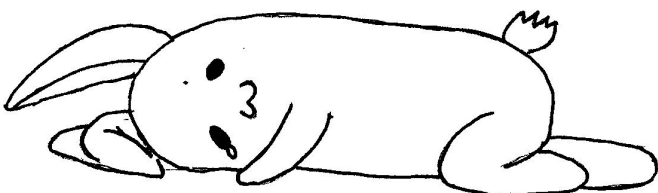
“Ugh,” I said, “Let’s just talk about something else. Anything. Like, what’s your favourite colour?”

Raymond said nothing for a long time. Then he sighed, sitting up straight, looking right into me. “You know my favourite colour.”

“Say it anyway,” I begged. “Please?”

“It’s yellow,” he answered.

Kaisa



N THINGS I HAVE MADE IN MY BLENDER

WITH RECIPES INCLUDED

- chicken smoothie
 - boiled chicken breast
 - water
- chicken, egg white, tuna smoothie
 - boiled chicken breast
 - liquid egg whites
 - canned tuna
 - water
- ground beef smoothie
 - cooked ground beef
 - water
- egg white and protein powder smoothie
 - liquid egg whites
 - protein powder
- snewps and rings smoothie (blended during pmath 347)
 - great value california style mixed vegetables
 - boiled chicken breast
 - water
- blazeeza (smoothie)
 - regular lazeez on the rocks (with 10 lines)
 - water
- greek yogurt and real fruit smoothie
 - greek yogurt
 - frozen fruits
 - water
- protein pasta sauce
 - 10.4 tbsp of tomato paste
 - 200 grams of cottage cheese
 - 2 grams of stevia
 - water
- protein alfredo sauce
 - 300 grams of cottage cheese
 - too many seasonings and salt
 - water
- protein pancakes
 - oatmeal
 - ghost cinnabon protein powder
 - water

cherry ♡

DO NOT THE BROWNIE

Look. When someone offers you a brownie, don’t be like me and eat it without some much needed critical thinking. Especially if they look like they were mined straight out of a recent lava flow and if they were made with copious amounts of “protein” “powder.”

There weren’t like drugs in it or anything. I don’t know why you thought that.

terminal

profQUOTES

CS 247: ROSS EVANS

- “ As the fourth-grade propagandist teachers tell you...
- “ If you have ever been to the fourth grade: they lie to you. Fourth-grade teachers *lie* to you! They tell you a square is a type of rectangle. And I'm going to tell you this is *fake news, deepfake, AI, false*.
- “ And this is the part where most profs say, “Don't critique me, I am not an artist!” but I am pretty good, so here's my turtle head: `void drawHead() { ☺ ; }`. Don't forget the semicolon, else it's not valid C++.

PMATH 347: STEPHEN NEW

- “ It (the classification of all finite abelian groups) follows as a corollary to the previous corollary to the previous theorem.
- “ Instead of describing it in words, I will give you a proof by example. I am sure you will be convinced by this example.
- “ You can put three lines to write congruence, but often I'm lazy, and I don't want to waste chalk, so I just put two.

MATH 237: JOE WEST

- “ What's the only number that's greater than one? Two!
- “ Remember the biggest thing I told you to learn from this course? “Give up.”
- “ We've been working hard on the final exam, consulting experts in the field to help us solve some of these problems.
- “ If you're using the internet, which I don't recommend...
- “ *[Doing a proof]* If you don't get that, just pretend you're an engineering student for a second and trust in the formula.
- “ *[Someone audibly opens a can of pop]* Bless you.
- “ My biggest advice to students: Give up! I should become a motivational speaker.
- “ Don't pay attention to what I write or say, but what I meant to write or say.
- “ *[About the final]* So, in other words, know everything! Good luck.

CS 240: ERIC SCHOST

- “ You are not guaranteed to find the leftmost occurrence. That's life.

- “ I will try to explain this tiny font here... maybe it is written like that because it is not meant to be read.
- “ *[About Tass(z)]* My 10 year old son found this notation here funny for reasons I don't want to explain.

PMATH 351: NICO SPRONK

- “ I wish I had my notes, because I suck at algebra. I wish I was Jason Bell right now.
- “ I took this reasonable estimate, then I jagged the crumbs out of it.

STAT 444: ALEX STRINGER

- “ The last time I was getting peer evaluated I got overwhelmingly positive feedback, which was surprising because it was STAT 231.
- “ In practice, you pick the model that makes your boss happy, collect your paycheck, and go home.
- “ This is the subject of another argument with my PhD supervisor, which he thinks he won and I think I won.
- “ Do you make mistakes a lot?
- “ I did that annoying thing that academics do where they pose a question and then answer it.
- “ I got my peer evaluation results back. Who here thinks I did well? *[Students raise hands]* Aw, thanks, you guys.
- “ Residual plots are not funny.
- “ I have a twinkle in my eye, a spring in my step, and all that is going to go away because I have to teach applied machine learning.
- “ I wish I was at my desk doing predictive modelling... wait, no I don't.
- “ I might biff this if I get into the details.
- “ Only one person is visibly sleeping. That's a record.
- “ Over the weekend, I had someone tell me that I'm not a real doctor. Thing is, they weren't a doctor of any kind.
- “ I don't laugh at students in lecture. I'll laugh at you behind your backs later.
- “ I only made one fart noise during my PhD defense.
- “ That was me crying. I was told that's a thing normal people do: experience emotion.

CO 250: VIJAY BHATTIPROLU

“ The dual to good is evil.

CO 342: MARTIN PEI

“ Let’s do a speedrun of the proof of Kuratowski’s Theorem.

“ Yes, we love smashing cycles together.

CS 492: CARMEN BRUNI

“ By the way, Trump vs Biden tonight. It’s gonna be a riproar. 50% chance either candidate has a heart attack.

“ I can’t still buy Swiftie tickets, so why should I care?

“ You go down the path of the dark net and question humanity. Try it, it’s fun. [*Shakes head “No”*]

“ I was depressed so I did the math. I was depressed before and became more depressed after.

“ Either I’m not reading the news or there is nothing happening. And I can’t tell which, which is a little bit concerning.

“ [*While reading the definition of cyberbullying*] My God. If it was on an essay it would get a minus one for run-on sentence.

“ I don’t think I would get admitted to CS in this university even though I’m teaching here.

“ Please don’t make me find your name in these 180 million dollar lawsuits because you didn’t negotiate.

SCI 238: MIKE HUDSON

“ This sucking business only happens if you’re really really close.

PMATH 320: AMANDA PETCU

“ If you’re a quaternion hater, you can do this with rotation matrices, at the cost of your sanity.

“ Kepler studied the Archimedean solids for crackpot reasons.

CS 488: SHLOMI STEINBERG

“ August 5th, 10 AM, tell your friends, post on TikTok.

“ Not going to go into why. It follows from geometry.

MATH 136: BLAKE MADILL

“ Then what is PD? ...Not that one, you hate it.

N POETIC PHRASES MY POSTDOC FRIEND HAS SAID IN NORMAL CONVERSATIONS

- It was distraught made climate
- The bike brings passion in me
- I challenged the heavens and the elements today
- They are an adventure. They bring me joy and sorrow.
- Integration is a monster that personifies cosmical horror totally. You cannot even be scared of it yet—you have not enough insight.
- Don’t be a victim of your talents or your demons.
- With patience, Noah, life flows with patience.

nazz

TIC 37 YOGA STUDIOS



floatingtiger

A WALK TOWARDS THE FLAMES, PART I

OR, A STRONGER FEAR

October, 2023—February, 2024

Early one morning in a barren apartment, my life began again. As I absently listened to the morning call, I grasped the tablets and downed them for the first time. A new part of my routine, yet one so unlike any other. I should have been ecstatic, but there was no celebration. I put on my shoes and left the building, and I knew that this was my victory. It should have felt fateful, a defining moment in the story of me, yet in my heart it remained perfunctory and hollow.

Right then and there, before anybody else woke up, I decided to make a story of my own.

(p. 48)

I flowed with the throngs of people as if towards some shared destiny. They scurried into whatever spaces they could on the train, and I did too. Yet however close they were, however hard they pressed, it felt a little different than before. We swayed with the melody of the subway, like branches creaking in a forest's trees, or reeds waving softly in the wind.

I smiled to myself. The beach lay before me once again, stretching towards infinity. Next to me on that sun-bleached log, He was sitting, letting the rays of sunlight sting His eyes. I looked at Him with pity. I knew just how anxious He was, even if He didn't want to share it. Not that He needed to, after all. Eventually, though, we would have to leave. In the corner of His mind, He knew it too.

I went around telling that story for a while, although a lot of my friends couldn't see why I thought it was funny. But this is all about how very difficult it is at times for people to see who or what they are looking at, particularly when they don't want to. Or maybe it does take one to know one.

(p. 183)

I settled at my desk like I had for months before, but my mind was elsewhere. I had finally done it. Before long, a man came by my desk. I knew him well enough, and engaged him in some mindless conversation, like we had many times before. Eventually, the subject drew to me, or rather, to people like me.

People like me. I'd never put it in those words before.

How people like me were a danger to children, how people like me ought to have our medical treatment restricted, how people like me were unable to hold civil discourse without devolving into irrational reaction. It was an unusual position to occupy, like I was intruding on something not meant for me. The man didn't know, after all. I still listened to him, nodding my head and feigning understanding. And our discourse, of course, remained "civil".

I swallowed my fury and it lay like a rotten egg halfway between my stomach and my throat. I could taste the sour in my mouth.

(p. 96)

On a cold December night by an empty Toronto street in a bustling and dim bar, I celebrated the end of another year. As the evening dragged on, the man invited me to drink. "You've got a bright future," he slurred. He eyed my sobriety with suspicion and pressured me to accept a glass. "Come work with me. We could make boatloads together."

I refused.

Maybe that is all any bravery is, a stronger fear of not being brave.

(p. 93)

A few days later, I returned home for Christmas. The year's end had always been tough, a perennial reminder of imaginary numbers ticking ever upwards. Now, they were gone, and I was glad. I didn't bother to hide it anymore. I was done with that.

So was He. We wouldn't wait timidly on that piece of old driftwood and watch the sun set. I knew His fate, and accepted it. He knew it too. It was an inevitability, like the distant crashing of waves or the faint twinkle of a fire down the shore. That's where She was. That's where we needed to go.

I dared myself to feel any regrets. [...] I couldn't begin to think about the risks I was running. But another piece of me was amazed at my own daring. I had done it. Even more than leaving my home, this action which was tearing my guts apart and from which I could die except I wasn't going to—this action was a kind of shift from safety towards self-preservation. It was a choice of pains. That's what living was all about. I clung to that and tried to feel only proud. I had not given in. I had not been merely the eye on the ceiling until it was too late. They hadn't gotten me.

(p. 111)

In January, I found a new home, and was relieved to return to my studies. But it was a difficult winter, full of reflection and retrospection. So much space was devoted to the places I'd been, or hadn't been. For so long, in a time of endless possibilities, I felt disempowered, helpless to fight for my dignity against the institutions that were supposed to help me. So I put my head down. I closed off and simply functioned, like a machine. But there was something missing.

How meager the sustenance was I gained from the four years I spent [...] yet, how important that sustenance was to my survival. Remembering that time is like watching old pictures of myself in a prison camp picking edible scraps out of the garbage heap, and knowing that without that garbage I might

have starved to death. [...] How little I settled for in the way of human contact, compared to what I was conscious of wanting.

(p. 82)

All the while, I led Him away from the log where He had stayed, frozen. We walked along the shore through the dark, the rocks softly clicking together underfoot. The faraway bonfire grew closer, and we could feel its radiant warmth.

verdanic

All quotations from *Zami: A New Spelling of My Name* by Audre Lorde, 1982

THE CROWDSTRIKE FAILURE

TWILIGHT TECH NEWS

INTRO

I'm planning to write a tiny news section for every installation of **mathNEWS** :) Show your support by dancing in the hallways of MC.

THE CROWDSTRIKE FAILURE

For those unfamiliar with the major global event, it began with a software update from CrowdStrike targeting their Falcon sensor security software on Microsoft Windows. This update led to widespread "blue screens of death," the infamous error screens on Windows, affecting companies worldwide.

It's unbelievable how many corporations were affected by this, some of them include Starbucks (temporarily closed stores), Amazon (schedule management issues), FedEx, UPS. A lot of airlines, and even healthcare systems including the UK.

This was a single-point failure: one small error that led to a domino effect and affected systems globally.

OPENAI

Announced and demo-ed their new (not ready yet) GPT 4o-mini model. They claim to have video features included in it too.

SPACE X

Elon announced that he is moving the headquarters of these companies to Texas (from California) and blames trans laws.

AMAZON'S "PRIME DAY"

significantly leads to increased injuries for warehouse workers.

dhami

profQUOTES FROM MY EXCHANGE

mathNEWS brainrot meant I was still scribbling down **profQUOTES** while not in Waterloo

DIEGO

- Student: "Hello."
- Diego: "Yo."
- "I wanted to be alone. And then my wife showed up with her new beau."
- "You shouldn't ask questions. The more you ask, the more confused you'll be."
- "Oh yes [student], I forgot about you." [NOTE: we had a class size of 12.]
- "It's just because of my mother that I am here, my father is not a good man."
- "You'll see this in literature, but nobody talks like that."
- "Did everyone have a good night last night? I have a hangover."
- "You aren't the best class in the galaxy, but you're a good class."

JOSEPH

- "I hate the Quebecois."
- "I believe in free Cape Breton."
- "Alberta's dead to me."

NOTE: the above three were all from different conversations.

- "I've never applied... for a job..."
- If you're looking for nightlife beyond that in [city], there's woods."

b'ef unwellington

I LOVE SPREADSHEETS

I love spreadsheets. I used a spreadsheet to track people's discord bot xp levels. I use a spreadsheet for my to-do list. I used spreadsheets for high school chemistry labs. I use spreadsheets to do computation when I'm too lazy to write a Python script. I use spreadsheets to document strategies for Minecraft parkour maps. I use a spreadsheet to track my rating in a rhythm game. I use a spreadsheet to help filter through potential job postings in WaterlooWorks. There is nothing I love more than creating giant tables full of formulas and spamming VLOOKUP, INDEX, and MATCH to process and look for data. I thrive fully immersed in the world of pivot tables. Please hire me employers I swear I'm not desperate

hyperlynx

MY UNDERGRADUATE JOURNEY; FROM THE FACULTY OF MATH, TO BECOMING A MULTI-AWARD-WINNING POET

BECOMING AN ALUM, AND REFLECTING ON THE SITUATION IN GAZA

This summer, I finally became an alum of the University of Waterloo. Looking back at the long and winding path it took to get me here, it's interesting to see how things fell into place. I recall, the seemingly never-ending slurry of coursework that demanded so much time and attention. The late nights I would stay up attempting to complete assignments in the early hours of the morning. I remember the quiet lull of those weeks after the end of the final exam period. I remember the nights when things didn't seem like they would work out. When they still did. And when they didn't. And how all of it somehow lead me, twice, to the Department of English Language and Literature Awards.

When I first set out to write this article for **mathNEWS**, I wanted to write about my journey as an undergraduate student, that started out in the honours math program, and the circumstances that lead me, like many, to transfer out of the Faculty of Math altogether.

Teachers and family members had high expectations of me. I think they thought I'd be making bank in finance or something of the like by now. Instead, I've become a poet. I reflect on these unfulfilled expectations, and the potential I had, that I chose to let go of, in order to pursue the path I'm on right now.

People warned me that I'd probably struggle to find employment without a STEM degree, especially as a person existing at the intersection of several marginalized communities. I knew I didn't belong in Math, so when I decided to leave, I also committed myself to the pursuit of excellence. Academic achievement felt like a form of survival. I reflect on the obstacles I face now, emerging as a new grad in the midst of this tumultuous economy.

Sometimes my friends ask me what it feels like, having had my creative work recognized with awards. More than anything, the experience highlighted for me what was missing. Winning these awards, for me, was kind of like high school graduation. It's another line to add to my resume. I know it might put me ahead a little bit, but none of my everyday problems have really been resolved. The glamour of the awards paled quickly. All that was left were the same everyday problems as I had before. My family, still fragmented, and myself, still lacking in many areas.

I never really intended to become a good poet, or even to improve on what skills I naturally possessed. I turned to writing because it gave me a space to discuss the problems I didn't feel like I had the space to discuss otherwise. I turned to writing because I felt lonely, and I needed a healthy distraction. I enjoyed writing workshops, because amongst strangers, it was a space where I could just exist, unburdened by the past, or the future.

I have a hard time writing about these accomplishments now; I feel compelled to write about the students in Gaza. The students who will never graduate. The students whose universities have been destroyed, and the many students who have died. The artists, and the engineers. I think of the potential that is lost with civilians who die in war, and those who live on with less opportunities available for their flourishing.

I think about the Gaza House encampment, and encampments at other Canadian universities. The students who put their careers on the line, and put parts of their lives on hold, to speak out against war crimes, and advocate for those who cannot be heard. Those who are under the rubble. I can't bring myself to further discuss my achievements while the situation in Gaza continues to escalate. I ask, why am I the one that gets to achieve? Right now, the opportunity to achieve is privilege in itself.

I think about my grandmother, with her limited literacy, who survived the Great Partition of India. My grandmother who never received a formal education and lives to see her children and grandchildren go on to become doctors, accountants, software engineers, and poets.

I think of the Palestinian olive trees. How it can take them years to grow before they start bearing fruit. I think of the olive trees that have been violently uprooted under the occupation, and the Al Badawi tree, a Palestinian olive tree that is estimated to be over two thousand years old.

Then I think of the longest night of the year, and the cold winter seasons, how the Al Badawi tree has lived through those long nights and seasonal shifts, into and out of cold and darkness, at least two thousand times.

When civilians die in war, especially children, they are robbed, not only of the opportunity to see what the world has to offer, but the ability to be a part of something larger than themselves. A family. A community. I am not Palestinian, I cannot speak for people in Gaza, but I still think about how I can serve them. As a creative, much of my work is deeply personal, but I believe that creatives have a duty to serve their communities, by creating and holding space for others when they need it. A space to just feel, and be in community with others.



Do you need space to talk about what's going on in Palestine? I invite you to continue the conversation with me on Substack. After this issue of **mathNEWS** is published, I will add this article as a post to my blog to provide space for discussion in the comments.

Warmly,

I. S. Bashirah

I. S. Bashirah is a multi-award-winning poet and recent alumna of the University of Waterloo. You can find her on Substack: <https://isbashirah.substack.com>

RATING MY COURSES AS MINECRAFT MAP SEEDS

Prior to my university days I was an absolute demon at Minecraft (version 1.8) pvp combat. But since coming to Waterloo I've found less time to play this game, which is a bummer. So today I decided to dust off the old Minecraft launcher and have some fun.

When creating a new world in Minecraft, you can enter a custom seed, which is then used to randomly generate the world map. And these seeds don't just have to be numbers, they can be any string of characters. So, I took the course codes (all lowercase, no spaces) for each course I'm taking this term and put them in as map seeds to see what see what surprises await me.

CS 246

- spawned in a snowy taiga biome, with a very big frozen ocean beside it
- walking around 100 blocks, I saw many icebergs and two polar bears
- on the other side of spawn there's a very tall cliff
- mildly interesting to look at, would not make fun survival world: **5/10**

MATH 247

- spawned on a small birch forest island
- on one of the shores there's a beach and a shipwreck buried in sand, let's see what loot there is:
 - leather boots with curse of vanishing (ew), 4 potatoes, 5 poisonous potatoes, leather boots with curse of binding (ew), 6 carrots, 14 wheat, leather pants with projectile projection IV (not bad)
- saw lots of turtles in the surrounding ocean
- would make an interesting survival run: **7/10**

CS 245

- spawned in a jungle biome, with a very big ocean on one side
- the terrain was very average
- would not play survival in this world: **3/10**

MATH 245

- spawned in between a spruce forest and taiga biome
- saw one of those broken nether portals within my render distance
- terrain was once again very average
- not a single animal in sight: **4/10**

STAT 230

- spawned in a dark forest biome (the one with podzol)
- wow another shipwreck on the shore, let's loot it:
 - 6 coal, 5 potatoes, 3 bamboo, 4 moss blocks, 4 poisonous potatoes, 2 smithing templates (wtf are these), 1 clock, 1 buried treasure map (!), 12 paper
- you know I had to hunt down the buried treasure, here's what loot I got:
 - 3 diamonds, 1 tnt block, 7 emeralds, 2 gold, 7 iron
- on the way to the buried treasure I saw a broken nether portal on its own island of netherrack in the middle of the ocean, very cool
- sub 10-minute diamond acquisition: **8/10**

AZ00

N THINGS TO DO IN WATERLOO BEFORE THE SUMMER ENDS

AND EXAMS START...

- try a spin class at Spinco uptown (they do \$10 Friday 5:30pm classes where proceeds are donated to charity!)
- go to Kitchener Farmers' Market for local fruits and veggies
- take a walk in Waterloo Park and see the llamas
- watch the sunset at Columbia Lake
- rent spikeball from CIF and play with friends
- try out the frisbee golf course at CIF
- go groundhog spotting
- grab a (delicious) pastry from Sabletine
- study at a cafe in KW (Midnight Run, Seven Shores, Whoopsie Daisy, etc.)
- watch a movie at Princess Cinemas

YUMMYPI'S LAST RECIPE

Of the term? Of the year? Forever??? I guess you'll have to wait and find out... :eyes emoji: Anyway, pie.

CHERRY PIE FILLING

- ~5 lbs of cherries that do not taste that good but you don't want to throw them out (about 2 standard supermarket bags)
- sugar, to taste (I used about ½ cup)
- 4 tsp cornstarch, roughly
- a generous squeeze of lemon juice, optional

DIRECTIONS

1. Remove stems from cherries and crush them with the flat of a heavy knife. Dig out pit with fingers. Put de-pitted cherries (with as much juice as you can) in a large saucepot. You can ask molasses and yummyPhi to help you with this, because it does take some time. It's nice to chat and spray cherry juice everywhere as an afternoon activity.
2. Turn saucepot to medium heat and allow cherries to release their juices, sitting occasionally. Add sugar (if you want to taste as you go, be sure to cool down the juices first so you don't burn your tongue).
3. Take some of the juice out into a small bowl and let it cool down. Mix the cornstarch in the juice to create a slurry (you can do this with a couple spoons of cold water instead if you don't want to bother).
4. Add the slurry to the pot and stir. Turn down the heat to medium low and watch it thicken up. Add more cornstarch if you feel like it is too thin, but avoid making it too gel-like.
5. Turn off heat and let it cool down a bit before adding the lemon (add more lemon if you think the filling is too sweet).
6. Done! It keeps in the fridge for up to 3 days and in the freezer for 3 months.

PIE CRUST TIPS

- Use the recipe on the box of the vegetable shortening or lard. These companies have food scientists that are paid to literally research the optimal pie crust recipe.
- If you want an all-butter crust, I recommend this recipe from Sally's Baking Addiction: All Butter Pie Crust.
- People are very easily impressed by lattice crusts, if you give it a go, they will 'ooh' and 'aah' and it's very good for your ego.
- My egg wash is 1 egg with a bit of water from the tap. I add a few eggs into the bowl when I'm done and make scrambled eggs.
- Sprinkle sugar (ideally raw sugar with big crystals) on top of your egg washed crust, trust me.

- If you want a uniformly golden pie, make a pie shield out of aluminum foil (or buy one, I guess) and take it off during the last ~20 minutes. Totally optional.
- I cook a 9-inch deep-dish double-crust pie for 20 mins at 400 degrees and then turn the temperature down to 375 for another 40 minutes.

CARS FRANCHISE REVIEW

CARS (2006)

Excellent movie with a lot of heart, imagination and has a good lesson about the value of humility and community. Sleek animation and fun to watch. **8/10**, solid film. Kachow!

The existence of the tractor cows is a little unnerving, as the cars in the Cars Universe are shown to consume oil. Are they used for car meat? Car milk? We never find out. There are combines in the same movie, implying that they wouldn't be used as beasts of burden. I stay awake at night pondering. **4/10** for weirdness.

CARS 2 (2011)

Remember Mater? Lightning McQueen's tow truck friend with the distinct accent? Well, this movie is (for some reason) a James Bond espionage adventure film starring him. McQueen has a fraction of the screen time as we watch Mater make a fool of himself by being (I shit you not) very culturally insensitive and ignorant. I guess this certainly was a film that was made. I laughed at some of the more bizarre jokes on the screen and I wasn't waiting for it to be over, so I'll give it a **6/10**.

However, within the first 10 minutes of the film, we witness many cars DIE. And they continue to explode, fall of their death, etc. We literally see the crushed, compacted remains of one car. The human equivalent is a cube of flesh, bone and organs. What on earth. Also, the introduction of Catholicism and the Popemobile (Mater says, "Is the Popemobile Catholic?" As a rhetorical question. Also, the Popemobile appears on screen and has spoken lines) makes Car Jesus, Car Romans, Car God flooding the earth, etc. canon. I wonder if Car Noah's Ark is sentient. **10/10** for weirdness.

CARS 3 (2017)

Great film. I won't spoil it, but I thought it was actually very interesting. It expanded on themes from the first film, as all good sequels should, and had a lot of heart. I won't spoil it, because you should see it. **9/10**, easily my favourite of the three films.

As for the weirdness, it honestly wasn't weird at all (in comparison to the other 2 films). Maybe I should be a little sad that the screenwriters stopped being ballsy and showing CAR DEATH in all its blazing glory on screen, but eh. **2/10**.

OVERALL

I really enjoyed watching all three Cars movies with my partner, yummyPhi, over the course of a chill, pleasant weekend. Eating warm, yummy food, watching an iconic animated trilogy, hanging out with my partner and enjoying the whimsy of family movie fun, what a splendid way to pass time. So that might make my opinion a bit biased, but still.

If you've read all the way to the end of this article, I might as well give you my rating. **8.5/10**. I understand why this trilogy is so beloved. I never grew up watching it, so I don't really have the nostalgia factor. So I watched these films with a fresh perspective and I thought they were really neat!

yummyPi

MENSTRUAL EQUITY AT UW COULD BE BETTER

I often find myself bleeding and expelling chunks out of my vagina at alarming rates, and I can never predict when menstruation will strike next. I am typically soothed when I find myself in one of the 124 bathrooms supplied with free menstrual products at the University of Waterloo. I never dare touch the tampons (afraid of what the cardboard applicator will do to my vaginal canal), and I do have to double, even triple up on the pads, but it's there, and it's been my saving grace in a pinch, or when my irregular PCOS periods catch me a week before payday. I can endlessly praise the project that's made my life that tiny bit easier, but I can't help but think the UW Menstrual Equity Project accentuates the same inequities it strives to address.

These products have always been around during my stint at this school, but it seems it wasn't always that way, since they only refer to this project of widely available menstrual products as a "pilot." The Menstrual Equity project at UW addresses barriers to menstrual product access and related resources, providing disposable products and reusable pads, cups, and underwear through the Women's Centre. It's crucial to note that menstrual equity is a multi-faceted movement, including educational and destigmatizing resources, but my focus and much of my thought is put into my physical experience of menstruation on campus and the tangible solutions offered by UW.

Curious as to what the budget was, and feeling mildly antagonistic about the quality of products offered, I reached out to the Equity department at the University of Waterloo to request a budget breakdown. From this interaction, I discovered the proposed budget for a one-year run was \$194,511.72, which includes labour costs, costs of products, dispensers, and other related expenses. I'm not the best judge of business-related costs, but that number felt low to me. The cost of the pads and tampons (\$2.89 for five of each) felt even lower, and suddenly my disappointment with the quality and absorbency made sense.

Unsurprisingly, my interest in this topic was driven by feelings of frustration and anger. Why am I not given the option to comfortably go through the motions of menstruation with these pads? They shift around, feel awkward against my vulva, and certainly don't last longer than an hour with my flow. A study at the University of Illinois Chicago finds students compromising financially to afford menstrual products, using them for longer than recommended, or improvising with

non-menstrual products like cloths or toilet paper. For one in four menstruating students who can't afford menstrual products, the ones provided in UW bathrooms for free may be the only safe and sanitary objects they have access to. I'm grateful to have the option to use products made for menstruation, but there is still a level of indignity I have to grapple with, knowing this pad is the most financially practical for this institution, and suffering the consequences in quality.

Menstruation is as diverse as the people experiencing it.

If the money is not there, it should be. I was speaking to my dear friend in the Math faculty, and she empathized with my angle, but told me she understood why the project operated the way that it did from a financial standpoint. She said something that stood out to me: how can we possibly accommodate such diverse menstrual experiences? The question stumped me for a moment—perhaps I am too optimistic, naive even, but all I could think was: "What is the point of a menstrual equity project that doesn't actually close the inequity gap?" Safe, comfortable, sanitary, and accessible menstruation is attainable, but feels just out of reach. I experience those feelings of shame and embarrassment, knowing that my body cannot make use of a pad that is one-size/absorbency-fits-all. I have to use my products for longer than I want to. I can't afford to buy pads some weeks. Still, I am not offered a solution.

Complications around menstruation are uncomfortable, painful, frustrating, shameful—students at this school are privileged to have access to clean facilities all over campus and a variety of menstrual products available within them, but settling for the bare minimum because we *should* be grateful is ridiculous (and a sentiment I have seen way too often). I want to see this menstrual equity project grow to encompass the variability of menstrual experiences—equity is about addressing the unique needs found in our diverse communities. Regardless of budget concerns, I would urge all those associated with this project to consider how menstrual needs can be met on campus more effectively, while taking into account how menstrual equity initiatives can unintentionally work to perpetuate inequities in our UW community.

panastan

SIMPLIFIED CHINESE CHARACTERS ARE UNREASONABLE — A CONSTRUCTIVE CRITICISM OF THE SIMPLIFIED CHINESE WRITING SYSTEM

憂鬱的臺灣烏龜 *IS A FUN SENTENCE TO WRITE AND I'M NOT GOING TO PRETEND OTHERWISE*

For those familiar with the Chinese language in all of its varieties and flavours, you are likely aware that there are two standardised forms of written Chinese in the modern era — the so-called Traditional and Simplified Chinese varieties.

Because the issue of simplification of Chinese characters is unfortunately heavily politicised (arguably needlessly), I will do my best to avoid the matter of politics as well as religio-cultural aesthetics due to the subjectiveness and often fallacious or outright dishonest arguments that are thrown, instead focusing only on the practicality and utility of the two character sets. Though a similar phenomenon took place in Japan with the simplification of kanji, for the most part the domain of discussion will be restricted to Chinese characters as used in the Chinese language.

A HISTORY

A brief history overview for those unfamiliar: because Chinese characters have for the most part evolved rather dynamically and were historically never subject to the same standardisation they were today, the appearance of characters has varied, with variant and vulgar character forms taking root as a result of the sometimes needlessly complex characters. The first calls for mass simplification took place in the early 20th century, with the first draft simplification scheme published in 1935 by the Kuomintang, the ruling nationalist military dictatorship in China, though conservative opposition within the party led to its retraction a year later. It was only in 1965 under the Communist government that the first round of simplified characters (the character set still in use today, with a few minor changes) was published, though a second round was issued in 1977 that fell out of favour due to unpopularity.

THE ARGUMENT

Proponents and advocates of the Simplified Chinese script will often point out that the Simplified Chinese script is responsible or at least correlated with an increase in literacy rates, that simplified characters are easier and faster to write, have made constructively beneficial changes to characters based on phonetics or semantic meaning, and also have pointed to the fact that reverting to Traditional Chinese characters would otherwise be impractical and require an extensive amount of effort for little gain.

However, this is an unfair assessment to make. Despite the authoritarian and centralised nature of the Kuomintang regime, at the time China was administrated not entirely by the central government, but rather in frontier regions administrated by local strongmen and military leaders with private armies and, as a result, had little to no power to enforce the

same mass literacy programmes that the PRC was able to under a unified China. Would mass literacy have been possible under a Kuomintang-ruled China without a mass simplification scheme? I leave that to historians to speculate, but I see no evidence to believe the contrary.

The argument of faster writing speeds achieved using simplified characters is not without merit, and it is commonly accepted that because simplified characters generally have fewer strokes, they are generally faster to write. Furthermore, even among users of traditional characters, ad hoc or colloquial simplifications are used extensively and are even considered acceptable in academic environments such as testing where responses are time-sensitive. For example, the bottom radical 灬 (fire) may be seen substituted for a horizontal line. That being said, this argument loses relevance outside of handwritten contexts, and in a world where input method editors (IMEs) are the preferred method of input for computer-based text, the argument for speed becomes completely irrelevant as the speed of typing is clearly equalised between the two character sets. Even with the matter of phonetics, it is not always the case that improvements were made. The simplified character set removed the phonetic element 黃 from 廣 (wide, vast), leaving only the radical 广.

Now, the benefits of reverting to traditional characters?

- One of the issues the simplification scheme caused was the merging of multiple distinct characters into a single simplified character, leading to ambiguities and confusion in vocabulary. For example, the two characters 面 (face) and 麵 (noodle), both producing the same sound, were merged into the character 面. Similarly, 復 (to return) and 複 (compound, complex) were merged into 复, and 髮 (hair) and 發 (to issue, to depart) were merged into 发.¹ Reverting this would lessen the ambiguity caused by the mergers.
- The traditional Chinese character set matches closer to the set of kanji used in Japan (as Japan made fewer changes during the simplification process to a smaller subset of characters), and traditional Chinese characters remain used (though to a far more reduced extent) in Korea. Adopting traditional characters would improve interoperability and cross-cultural communication/dialogue.
- The ability to read ancient or otherwise archaic texts (or, at the very least, identify characters to then interpret meaning) would be lost from excessive simplification. Restoring the traditional script would improve cultural continuity in the Chinese language.

- I would like to include more, but unfortunately the article would hit the word count limit.

THE SOLUTION?

While it would certainly be reckless to completely revert the scheme and immediately force the original traditional script on a population of 1.4 billion, instead the process could be done gradually—just as it was possible to force a simplification scheme decades ago, it would just as equally be possible to revert it, and we should not fall victim to the sunken cost fallacy way of thinking. The traditional forms could be reintroduced into school curriculums and gradually once society has accustomed to recognising them, the simplified forms could be phased out of use over time.

I am not entirely against the idea of any simplification—for instance, I would agree that some characters (like 齊) are needlessly difficult and personally I opt for 齐 instead in my own writing (not a fan of 齐 though, but that's more for personal aesthetic reasons). The message should be rather that while character simplification has its merits, it should not be pursued relentlessly and so drastically as it was done in the PRC, and even if it possible it is not necessarily necessary to do so.

Юрий Михайлович “Куз” Кузнецов

1. <https://en.wiktionary.org/wiki/%E5%8F%91#Chinese>

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CCCXLVII

'sy:lv



XAVIER: RENEGADE ANGEL

Half-asleep, exhausted, and barely coherent—this was the state I was in when my girlfriend decided it would be the perfect time to introduce me to *Xavier: Renegade Angel*. After watching a 4-ish minute clip of the show in which the character meets himself, being barely able to parse its dialogue full of non-sequiturs and double entendres, there was only one question on my mind: why? Who would make this? (Two questions.) I was entranced.

For those unfamiliar, *Xavier: Renegade Angel* is an adult “animated” black comedy series starring the titular Xavier (renegade angel), following him through his nonsensical absurdist adventures and magical hijinks. It originally aired on Adult Swim in 2007 and had two seasons. The main character looks like this:



FIGURE 1: XAVIER (RENEGADE ANGEL)

Wikipedia describes Xavier as an “itinerant humanoid pseudo-shaman and spiritual seeker”. The amount of words required to begin describing Xavier, as well as the fact that he looks like the horrible AI fusion of every edgy 14 year old’s DeviantArt oc, should clue you in as to the amount of bullshit this show gets up to. A common sentiment among fans of the show is that the authors must have been on a minimum of 3 different psychedelics when producing it—I can’t help but agree. To engage with the show requires taking at face value its deranged rambling script, awful characters and frankly dogshit artistic direction.

The incredibly fucking ugly art of *Xavier: Renegade Angel* is probably its standout feature. If it weren’t for everything else about the show being extremely... the way that it is, I would’ve assumed the awful artistic direction was a product

of incompetence rather than intentional CG wizardry. Every single character model in the show is ugly, bulging, and uncannily textured in a way that makes them look dirty. Xavier’s stiff, paperlike hair constantly clips through his face and shoulders in every closeup shot. There is no defined colour palette, except for the animators’ seeming preference for beige and grey tones in the non-rainbow-psychedelic shots of the show. The shading is flat and often just incorrect when considering the direction of the light source. I could go on, and that’s without even getting into the animation. Earlier in this article I used the term “animated” to describe the show, which is giving it a lot of credit. Nothing in this show moves like anything you would see in real life, not even just because Xavier’s knees bend backwards for whatever reason. Physics? Who is she? *Xavier: Renegade Angel* is beyond these fickle matters.

And yet, this absolute fuckery makes perfect sense in context, lending itself well to the abstract, nonlinear narrative structure. There’s the obvious fact that it reflects the unreal, fever-dream-like nature of the show. As a bonus, it also gives the impression that the show’s production quality was of secondary importance to the writers having fun and dicking around through the vessel of Xavier—telling their story by any means necessary. In a roundabout way, the fact that the art looks so unpolished has me convinced that the writers did actually put a lot of care and effort into the show.

Speaking of the story (or at least the semblance of a story) being told: *Xavier: Renegade Angel* follows the titular main character as he tries to generally solve problems around the physical and metaphysical planes. Unfortunately, his attempts to do good fail at pretty much every turn, leading to destruction, death, decapitation, and people becoming sandwiches. There is, shockingly, an overarching plot across the two seasons, which in vague terms has to do with Xavier finding his father’s killer and then searching for his mother. I say “shockingly” because the episodes are 11 minutes long and yet feel like 20. The setting will randomly jump locations, as will the topic of conversation between the characters. In fact, almost all of the dialogue sounds AI-generated, between its awkward voice acting and seeming abuse of a thesaurus during the writing process. There is a joke nearly every 10 seconds and none are given time to settle before the next one happens. It is all incredibly funny, but it is a lot to process: I took breaks between watching consecutive episodes, otherwise it started feeling like brainrot content.

However, *Xavier: Renegade Angel* does show its age somewhat in terms of the humour. Granted, it is a black comedy, so topics such as cannibalism, incest, self-harm, necrophilia, and every “-ism” or “-phobia” you can think of are played for laughs to the expected extent of an adult animated show. A core point of the show is its satirical take on, and mocking of, spirituality—often this ends up in quite offensive portrayals of Christianity, Islam, and especially various Native American beliefs. In my **personal** opinion it didn’t ruin the show, but if you decide to check it out just keep this in mind.

Overall, though, there is a charm to the show's genuinely garbage appearance and weaving plot that makes it refreshing to revisit in the current era of Family Guy and South Park copy-pastes. I looked into the dedicated subreddit (r/XavierRenegadeAngel) for this article and found a small yet relatively active community. The mass amounts of fanart and dedicated shitposting show that evidently, quite a few people genuinely appreciate this show. If you decide to check out *Xavier: Renegade Angel* for yourself, I do hope you also find something of value within. And please heed the content warnings. Godspeed, metaphysical seekers.



mobpsychofan

THE REAL WINGS WERE INSIDE US ALL ALONG

When I near the end of things, I look back and see the path I've taken. There is the ever-present question: If I could do it all again, what would I change?

Then comes the spiral. A constant reliving of the past, where I am contemplating what I could change and what I regret. Self-reflection is like living a thousand Groundhog Days, trying to make yourself a better person. I don't think I can learn the piano this way.

And in a way, going to H00ters is the same.

The beauty of chain restaurants is the same-ness. You can keep reliving the wings you had that one time, because they make it the same at every location. Each franchise is a new day to try to improve on yesterday. Across Saskatoon, Montreal, Toronto, and Niagara, the H00ters experience claims to be the same.

The main consistent thing across a chain restaurant is of course the food. In Niagara, we got the same menu with the same items and the same prices. The waitresses wore the same uniforms and the food tasted about the same. It was nothing really to write home about, which has made this somewhat challenging. The décor was different from other locations,

with less bright oranges and an actual brick wall, but it felt like taking a different route to the same place. Sure the table covered in swimsuit calendar women was neat and my drink was gross, but it wasn't important. I was at a loss, what has changed about H00ters that I no longer feel the same about it?

The thing that has changed is me.

I'm not the same person who walked around Saskatoon in February. I am extremely different and all the better for it. When I look back on the meals I had and the roads I walked, I know I would do it all the same. Otherwise, I wouldn't be me.

Reflection and regret often bring up embarrassment and self loathing. My one piece of parting advice is to love yourself openly and deeply.

I look into the past and see the echoes of myself that build into a beautiful symphony. How could I hate a 6-year-old me for playing faeries or cringe at a 12-year-old who just wanted to make friends. I love you at 14, awkward and unaware. I love you at 17, moving into residence and sleeping in too much. I love you at 21, heartbroken, and 22, heartbroken.

I love you reading this. Whether it's me 30 seconds from now editing, or in two years reminiscing, and especially if it's someone else. Love isn't a resource to be cloistered away and only given out to a rare few most deserving. It's a skill and a practice. The more times I say I love you, the more times you hear it, the more love there is in the world.

Nothing but love,

rockfacts

p.s. I got a H00ters tank top. My tits look magnificent in it.

MY MOTHER USED TO — SHE WOULD GIVE US A HARD TIME AND SAY TO US — IDON'TKNOWWHAT'SWRONGWITHYOUYOUNGPEOPLE —

You think you just fell out of a coconut tree? Ha, ha, ha, ha —

You exist in the context — of all in which you live and what came before you.



WHY HEXAGON IS SUPERIOR TO RECTANGLE

IN THE CONTEXT OF SPATIAL INDEXING SYSTEMS

Have you wondered how online maps calculate the route from one location to another? An hour after riding the GO Train from Kitchener to Union, you crave Lazeez all of a sudden. You eagerly open up Google Maps on your phone, find the nearest Lazeez to Union, and make a 10-line Uber order to be delivered there. A well-executed plan. Behind the scenes, your craving was satisfied by the operations of spatial-indexed systems.

I learned about geospatial indexing in GEOG 387 by Rob Feick, which covered much knowledge in spatial databases and their queries. I liked this course as I learned a lot from it. To put it simply, spatial indexed systems are optimized for storing and querying of spatial data, which includes data representing the location, shape, and relationship of physical objects in space. Unlike queries in traditional databases, spatial queries enhance the performance exponentially when working with geometric data such as points, lines, and polygons. If you know the spatial index of Union Station, which is usually represented by a 64-bit integer, you will be able to pinpoint the Lazeezs near it like looking through words in alphabetical order. It is like how a hash table works.

There are two popular choices to create a spatial indexing system. Uber/h3¹ is a spatial indexing system that subdivides the Earth into hexagonal grids, while Google/s2² divides it into rectangles. Aesthetically, I love hexagons. Hexagonal UI design appears in many sci-fi games like 13 Sentinel: Aegis Rim and Ingress. As we live in a world that is different from Minecraft, we should worship shapes that looks more sci-fi and less pixelated. Imaging the Earth being divided into hexagonal grids fills my heart with satisfaction. Looking at the fractal of h3³, no one can deny the beautiful look of snowflakes piecing together, like Frieren casting a barrier that is shielding our world from the ender dragon's attacks.

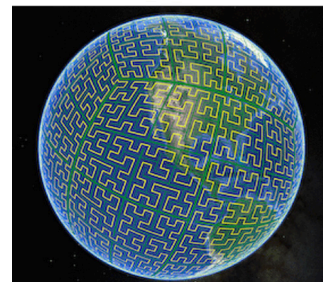
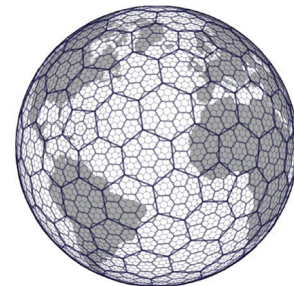
What's more, to determine h3's delineation, Dymaxion map projection⁴ was used to project the Earth's surface onto faces of an icosahedron, so that the hexagons can grow from there. The vertices of this icosahedron were carefully set to be in the ocean, where the surrounding area is less populated by human civilization. When projecting a curved surface on a flat surface, distortion happened, and the edges of the projected surface suffer the most. The use of Dymaxion Projection with hexagonal fractal minimizes the distortion near the edges of the faces. In contrast, s2 projects the surface onto faces of a cube⁵, which is also referred as Cube map projection. As we all know, a d20 is more spheric than a d6. The d6 projection looks quite decent as well, but you may notice the cells near the edges are distorted like diamonds. Like stepping onto Lego blocks with a bare foot, they are too spiky to be dealt with sometimes. However, h3's projection isn't perfect either. As you may noticed, 12 pentagons appeared when subdividing the 20 faces of the icosahedron, and hexagons cannot be subdivided into seven hexagons perfectly. A handful of special cases need to be dealt with when executing spatial queries in the system.

The spatial relationship between hexagons is more natural than squares. A square cell has 8 neighboring cells with 4 positioned vertically and 4 diagonally, so the distances between the cells are not identical. On the other hand, the neighboring cells of a hexagon cell have equal distance to the central cell, so they can be treated equally. Using some linear interpolation methods⁶, you can roughly estimate the distance between two cells by counting how many cells they are away from each other. For square cells, only the Manhattan distance is known, so the use case is limited. Comparable to a tabletop roleplaying game setting, if you cast Fireball towards an enemy that is 120 feet away, using a map with hexagonal cells for the combat usually provides a better estimation of the actual distance.

If you are also interested in spatial analysis, why hexagonal tiling can be a better choice for congregating spatial data together as patterns, or you want to learn more about geomatics, I would highly recommend taking a look at GEOG 318 as well. You can also read the book *Geographic Information Analysis*⁷ instead. It is my favorite book that I studied in a course.

TRIVIA

- Technically, you can store two spatial indexes in the same database, or use something like *Orthogonal-Diagonalizer*⁸ to convert one to another on demand
- Niantic Inc. used to be an internal startup of Google. Google/s2 Geometry Library is the backbone of location-based games made by Niantic



eralogos

1. <https://github.com/uber/h3>

2. <https://github.com/google/s2geometry>

3. See first image. Source: <https://www.uber.com/en-CA/blog/h3/>

4. <https://xkcd.com/977/>

5. See second image. Source: http://s2geometry.io/devguide/s2cell_hierarchy
6. See section *Line Drawing* in <https://www.redblobgames.com/grids/hexagons/>

7. O'Sullivan, D. and D. Unwin, 2010. *Geographic Information Analysis, 2nd Edition*, Wiley. Available online through the library
8. https://wikizilla.org/wiki/Orthogonal_Diagonalizer

THE RESEARCH AND TECHNOLOGY PARK LIVES OR DIES BY GRAND RIVER TRANSIT

OPINION: MIKE PEREIRA'S OFFICE OF R&T IS ALREADY MONTHS BEHIND.

Since The Right Honourable Sir David Johnston set out the plans for the area north of Columbia, they've been dashed time and time again. The first cracks came with the advent of modern social media. Web 2.0 projects bridged the seas of concrete and enabled the headhunting that the designs of those first buildings hoped to prevent. Now the parking lots only make the land unfruitful and drab, and with the advent of the MaRS Discovery District, associated with the University of Toronto, the poor decisions under Johnston's leadership have grown from tiny flaws in land use and locale to massive barriers, snowballed by growth of peer institutions.

Dormant for many a year, Waterloo once again has been given a shot at revitalizing the former Governor General's plan for the space bearing his name. As of 2pm today (Monday, July 22nd, 2024), the news has been made public: a hospital is coming to North Campus. I've been following the story for the past couple of months, and while I'm excited at the prospect of growing our Health Faculty and bringing much needed medical service to the residents of North Waterloo and the outlying townships of Wellesley and Woolwich, my greatest worry comes from the nonexistent integration with Regional Service and planning.

Despite my direct participation in planning processes, the details were kept deeply under wraps, wasting not an insignificant number of man hours; and much more critical than the lost labours of our faculty and staff on campus were the lost hours by the GRT. Grand River Transit, in the midst of their efforts to set the new five-year plan has, as always, ignored High Point. It's a fairly boring hill of north campus, situated between Hagey Blvd. and Westmount, and one unserved by public transport. The 9 bus runs connecting the UWaterloo and R&T Park MTSAs but clearly avoids traversing toward the Environmental Reserve and the residents of South Lakeshore Village. This part of town is sparsely populated, leading to many fun species calling the place home: coyotes, turkey vultures, deer, foxes and more. The resistance to growth in the Park has been a boon to their populations, and maintained healthy biodiversity on campus.

Yet, due to its remoteness, lack of streetlights and pedestrians, there exists no means by which residents can come to use the to-be-built hospital save for by car. This is a disaster. Grand River Hospital may be a driver's nightmare, but its integration with the ION LRT is critical to much of the population's access to medically necessary attention. Heck, even St. Mary's is heavily served by bus routes and cycling paths. Some lack

of dedicated service is to be expected—we're anticipating a demand that is yet to exist—but none of the GRT work already in place can respond to such a large facility opening between the 13 and 9 corridors. The decision to place the new build away from the ION is a risky one, with the extreme likelihood that the Corrie Crescent neighbourhood stymied any plans for nominal project growth.

With the addition of so many car trips in a protected area, the potential for so much outright destruction of our last great open space in Waterloo is shameful. We don't need hectares of parking to sit idly by concentrating and poisoning our water supply. We can solve this problem through transit, both in expanding access to the UPass to more than student populations, and through severely limiting parking around the development. It is in the public interest and follows the literature to eliminate the absolute size of lots across the region. The city already is well aware we're on track to fail all of our climate goals, so in finally achieving a positive outcome in public health we can't afford to throw away any chance at clawing our way back to target.

This is a public appeal, on my part, to alter the path of progress before we lose the opportunity. Pereira's priorities in the coming weeks need to refocus, targeting bringing in new and building up the existing sponge lands around the development to accommodate the torrent of runoff bound to accompany the work. We need to curtail our growing impermeable surfaces lest experience the flooding of recent weeks seen in Toronto. I remain cautiously optimistic as I see all the good that can come with this change, yet I worry about the long-term damage we cause by being careless in our execution. We work and live in a water quality protected zone, and it's high time we start acting like it.

Sweating bullets,

sqrt(cause)

EXHAUSTION

I'm just so, so tired.

QUAAAAAAAAAACK

YOUR STANDARDS FOR VIDEO GAMES SHOULD BE HIGHER

Whenever I'm back in my hometown for a weekend, I dedicate a day to my childhood best friends. We drive over to each other's houses, sharing our contrasting music tastes on the stereo—from jazz to metal to hip-hop—and, without explicitly catching up, we put ourselves right back into place. We grab something to eat, make fun of each other, and put on an old slasher film to watch with our food. Then, we head up to the bedroom and play video games for hours. The world stands dark and still—like we're kids again, our bikes resting haphazardly on each other's lawns.

We like to give one of our friends a hard time, because he's often critical of the media he consumes. Music needs to be ambitious, not generic industry-planted pop. Film needs to prioritize cinematography over coherence. Video games must deliver a unique experience with each entry, putting gameplay far above story. I used to disagree with him when we first met, but the more we talked and debated, the more I realized how much passion has been sucked out of media in favour of appealing to the masses and boosting sales. The thing is, it's easy to find and appreciate more “niche” records and films. Mainstream video games are a whole other story.

We play a lot of old video games because that's when the industry still took risks. Games were simpler, with smaller developer teams and less pressure from corporate suits to deliver a profit-maximizing product. Video games were a form of art displayed proudly on a controllable canvas. Developers often broke the boundaries of what consoles—even as recent as the PlayStation 2 and Nintendo DS—could do by inventing new gameplay features to make their games memorable and exciting. These features could be gimmicky sometimes, but they often defined new genres and paved the way for modern, mainstream video games to gain their footing. Take for example, *Devil May Cry (2001)*, one of my favourite games of all time. Hideki Kamiya accidentally created the blockbuster series for Capcom while working on *Resident Evil 4 (2005)*. But, by doing so, he also popularized the modern-day hack-n-slash genre. I'm playing through another one of his games right now, *Ōkami (2006)*, and it's the same idea: The game is simple, but it's paired with a feature that remolds the game and its story: A paintbrush that the player controls to draw objects into the world, fight enemies, and effectively, rewrite history. The simple idea of having the player use a paintbrush for all their tasks not only makes for unique gameplay, but it boosts the story and art-style to deliver an unforgettable experience.

Nowadays, video games do the opposite. Making games has become expensive, and the industry is much more corporate. Rather than prioritizing gameplay—which is the very essence of what makes a videogame—developers try to evoke emotion from the player through the game's story and “ultra-realistic” graphics. When I mentioned *Devil May Cry* earlier, I touched upon how it was actually supposed to be *Resident Evil 4* in its early stages. *Resident Evil 4* is considered the fan favourite in the series, because it popularized the modern third-person

shooter genre and ironed-out the issues that the clunky shooters of old had. The game broke boundaries for the genre and for video games. Since then, we've seen far more realistic and engaging third-person shooters. Unfortunately, that also means that we saw the genre milked to a point of exhaustion. Most shooters are now generic, bland, and follow the same repetitive gameplay loop—afraid to take risks and innovate. Each new entry in the genre just boasts about graphics and story. I'm glad that Capcom is taking *Resident Evil* back to its roots.

We're seeing the same issue with open-world games now, which *used to* prioritize and reward the exploration of beautiful, hand-crafted areas. My favourite open-world game is *Fallout: New Vegas (2010)*. I could walk through a *Fallout* map for hours at a time without getting bored or frustrated, because each portion of the map has unique locations that come with their own kind of lore, objectives, and gameplay. The open-world atmosphere is never a chore to walk around in because the gameplay is tailored to the player; the world around the player matches the energy. As a result, the game is memorable—with or without a masterfully written story. What do most open-world games nowadays do? They boast about their stories, graphics, and unnecessarily massive maps, most of which are empty or copy-pasted buildings packed with fetch quests and bandit camps. I cannot fathom how developers expect us to praise them for their game's story and graphics when the very thing that makes it a videogame, the *gameplay*, isn't there. This has been an issue in open-worlds far before *Starfield (2023)* was released, but look no further than its gameplay and Bethesda's response to the criticism to see what I mean.

Video games are meant to be played. With passion and the desire to innovate, we get memorable experiences that are worth cherishing. My childhood best friends and I spend hours discussing the games we've been playing—both new and old—and reviewing them. We pass along stories of games that changed our lives, digging deep inside of us and exposing our feelings. And by doing so, we stand tall knowing someone's art was remembered for more than just gimmicks, but for being art.

Usman!

To be clear, I'm not saying “all old game good, all new game bad.” Nor am I saying that we can't have repetitive, brain-off video games to relax with every once in a while. I'm simply saying that the passion the industry once had has shrunked greatly, and developers are often praised for lackluster products that could've just been movies or shows.

mathNEWS

THE PORTAL AT THE END OF THE ST. JEROME'S BRIDGE

what to do when we reach the end? there's so much left i want to do. i want to fall in love this term. i want to make new friends. i want to see my loved ones more. i want to spend less time in dc and more in the sun, under the blue, fresh in the green.

when i reach the bend, i see vastness. everything i could be and nothing at all. someone further down the line says the figs rotting on the ground are actually stepping stones in a river of browned sugar. nothing is truly lost.

i'm lying in the belly of my monstrous to do list, counting days off of its walls. i want to build a rocketship out of the scrap metal lying rusting on the road, i want to make something of all the things i wanted when i was younger. i want to chase the songs and friendships that have gone away, those papers dusted in my memory.

instead, i toil in the academic fields like a medieval peasant. i work and work and enjoy no satisfaction, i too am sisyphus and my boulder is getting so large i can barely see in front of me. every day i make a choice. i will enjoy my suffering because i must. my friend brings me cheesecake as a treat. we will make it to the end of this quest because we must.



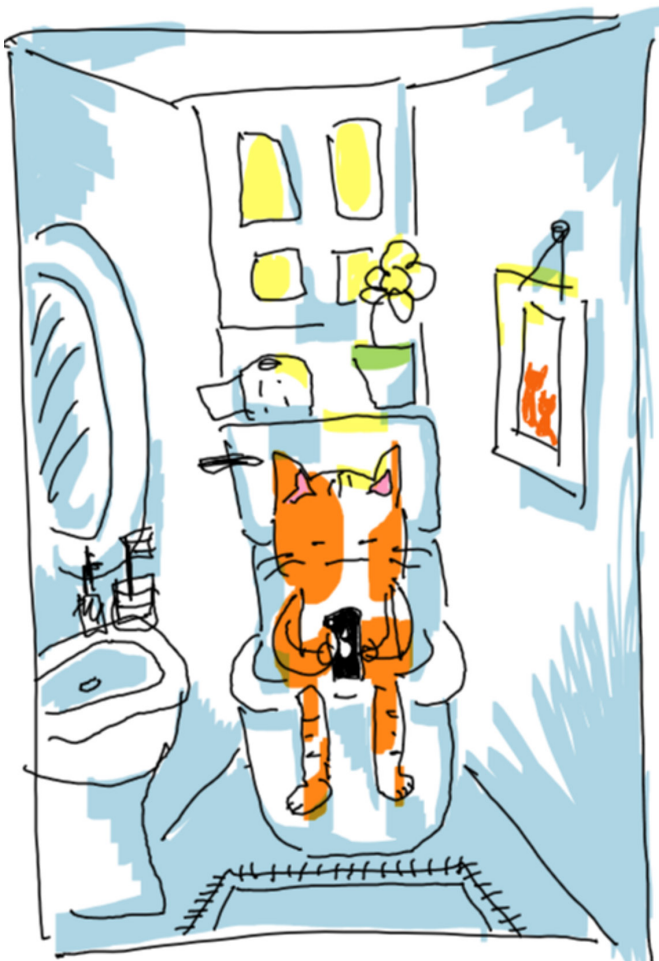
instantpoodles

N THINGS T&T DOESN'T HAVE

T&T might have some of these things if their stock has changed, or if I couldn't find them, but T&T's organizational scheme is a whole other can of worms:

- frozen fruit (other than durian)
- cooking spray (I think they've since added it)
- cookie dough
- vanilla pudding mix
- cottage cheese
- pickles
- shredded coconut flakes
- black beans
- black tea bags (!!)

peacelovemath



WHEN ADMIN SAYS STOP THEY MEAN PLEASE KEEP GOING

Administrators, property managers, figures of authority often push back a bit when you self-advocate or have issues to bring up with them. For example, you might say to your favourite landlord,

“There are cockroaches in my unit, please send someone to take a look?”

and a classic response could be

“How come you’re the only one complaining? Why haven’t you filled out a maintenance request form, you’re wasting my time and causing a lot of trouble with this.”

Much like a quivering sub begging you to stop “nyaaa! n-noo pweas don’t >.<” sometimes using “stop” to mean “please keep going” adds some playfulness to the dynamic. The difference is that when someone you adore is doing it, it’s endearing and exciting, and it’s quite obvious how you should respond. When people with power do it, it’s much easier to be misled and scared; they can be more than a little intimidating when they try to be.

But don’t fret! It’s easy to pick up some of the subtle signals that these people might use in conversation:

“You’re the only one bringing this up, how come nobody else is having this problem? :3”

This is a certified classic, and it’s important to cover first. It’s really easy to think that they want you to feel problematic, singled out and isolated to encourage you to back off. This is not at all the case, and you’ll be kicking yourself if you miss the hint here. What they’re really saying is “Wow! You’re so smart and astute! Mmmm please tell me more about the issue you’re having and how significantly it’s impacting you right now, I’m so close and I’m about to come do something about it, or maybe I’ll send a friend and I’ll watch :) <3<3.” Now I know what you’re thinking, and you’re probably right too: “I can’t possibly actually be the only one bringing up this issue, they must say this to everyone who brings it up.” You *aren’t* the only complaining, but they’re so nervous around you and they want you to like them. Give them a break, just play along and don’t stop!

“Don’t reach out to me directly >:!! you haven’t submitted the proper paperwork >:(!!”

Definitely tricky and there’s more than one way this signal could be used so it’s easy to confuse this one. The big mistake to make here is assuming they want you to feel daunted, or that they want you to feel like you’ve made a mistake by speaking up to sow some doubt on your cause and slow your roll. Quite the opposite! They’re playing hard to get, they don’t want to just give up for you, they want you to feel like you *earned* them to make the experience that much more

intense. Generally it’s a good idea to at least start by playing ball, it’s important to keep your counterpart feeling safe and comfortable. This can sometimes mean doing things in a way that they can predict and expect. Sometimes though, you’ll notice they’re changing the goalposts on you or really trying to bury you in work. They’re just teasing you “uwu! look at him go he’s such a good little thing doing everything i ask, but i just wish i could see them be a wittle more assewtive, ugggh imagine if they told me no ->~<-.” It’s okay to try to break out and tell them what they’re asking is unreasonable. Or, get someone else involved, an advisor or some other kind of advocate may be able to help you navigate any technical intricacies.

“Do you know how much trouble you’re causing me, you’re asking for so much >:O”

I’ll go ahead and say I don’t even know how one would expect an inexperienced student to pick up on this one. It comes off quite strong and it might feel very intimidating and scary, the uninitiated might be completely caught off guard and speechless. Rather than listening to the urge to run away and drop whatever your issue is though, think about what you’d be missing out on! This signal is coming from a place of great tension and frustration and it would be a shame to miss out on a climactic resolution here. What you should hear is “ayaya! i’m sooo pent up and i know *exactly* what you want UwU, I already know why you want it and expected that you might ask ;)). just take it from me already!!! ohmygoshohmygoshohmygosh im soooo ready.” Now I’m gonna be honest this is a little cringe and it comes off strong for someone you just met. If you’re understandably a bit unsettled, you could wait a day or two so they’ve calmed down a bit before you raise your issue again. Or, maybe, you could try reaching out to someone else who might be able to contain themselves a bit better.

The bottom line is that when you’re advocating for yourself and/or others, sometimes the person on the other side is a silly lil guy who likes to be bratty or playful. It’s important to take these lil fallacies and oppressive attempts to intimidate in stride and remember that they really mean *you are on the right path, and you should press forward one way or another.*

freaky batman

HELLO KITTY IS NOT A CAT

hello kitty is a girl. she actually owns a cat named Charmmy Kitty.

panda1

MICROCHIP CONSPIRACY

My eyes fly open. Looks to be the middle of the day again. I look around, seeing the familiar scene of rows upon rows of people in a crowded office. No one else notices me, still entranced in their stupor. It's been 23 years, 8 months, and 12 days since the fall of society as we know it.

It seemed innocuous at first, trying to protect the prestige they fought hard to establish. The parmesan industry has been littered with counterfeit cheese for decades, if not centuries. It seemed only fair that they be able to do something about it. How wrong we were thinking they would stop with just controlling parmesan.

It started out in the wrappers. Adding microchips that can be scanned to verify the authenticity seemed like a great solution. No one blinked an eye when they were added to the cheese itself. That was our last mistake. Before we knew it, everyone became a mindless fool, unable to form their own conscious thoughts.

Ring ring! The bell has spoken, telling us that it's time to head home. As the masses rush around me, their influence makes my head go foggy. I try to hold on, but the pressure effortlessly brings back into a daze.

This time though I feel something slowly pulling me out. It gnaws at the barrier preventing me from waking. The sleep gets lighter and lighter.

My eyes fly open. Oh, I haven't seen *this* before. I'm in a connector between two building. The line inches forward a step. I start looking around frantically, trying to not draw any attention. Suddenly, I see something that forces my gazes, unable to look away. An unmarked door sits to the side with a warning sign overhead: "Danger: Time Anomalies."

The line takes another step. The door beckons me to get closer. I try to move but my body refuses to budge. The lines moves further forward. The door is now behind me, blocked by the crowd. I try to get to the handle but it's now out of reach. Everyone takes another step, sending me back into the collective slumber.

This time it isn't calming though. A searing sound pierces the usually soothing dreamscape. It pushes and pulls me to the edge of the bubble I find myself in. Suddenly, it burst with a violent pop.

My eyes fly open. Oh, I didn't think I'd ever see this again. In front of me stands an unmarked door with a warning sign overhead. I glance behind me; all alone. I feel a force making me reach for the handle, but I conform willingly. I take a step, finding myself past the door.

A bright light is shining from the centre of the room. I see what looks like a date on a monitor to my right: [REDACTED], five years before society crumbled. Looks like the warning was right, all signs point to this being some kind of time anomaly.

It sparks an idea: What if we can avoid all of this? What if we can let everyone know of what happens before it's too late.

I scribble a quick note down: "DON'T TRUST BIG PARMA'S MICROCHIPS" This should be obvious enough what it means. That's it, I'll be the hero that saves everyone from this terrible future. I don't know if it'll work, but this might be my only chance. I brace myself for the worst, and leap into the bright light.



Joey walks down the sidewalk. It's a typical Monday coming back from work. Sometimes he feels overworked and under appreciated, but today is not one of those days. With his new promotion the days of monotonous, mindless work is over.

To the side of his vision Joey sees a blinding light appear. He turns to see what's happening, instinctively shielding his eyes with his arm. Suddenly, he sees someone on the ground and rushes over to help. They raise their hand, holding some kind of piece of paper out of Joey. He takes it in his fingers, but it won't budge. Joey tugs a bit to loosen the grip, but nothing seems to work.

Then, the paper seemingly starts pulling back. It catches Joey off guard, before he finally realizes it's not the paper being pulled, but the person themselves. He sees their legs floating in the air, but they both hold strong. With such potent forces on both sides the paper can't handle it anymore and rips in two. Joey sees the person let go of their half, being dragged into nothingness. He shudders as the words "Help us..." echo to him.

Joey finally gets a good look at the piece of paper he has. All it says is "DON'T TRUST BIG P—" before encountering a clean rip. He scours to find the second piece and reads "ARMA'S MICROCHIPS."

He looks puzzled; it feels like something important is missing. Oh! Joey perks up as he realizes what the note meant, there is something gone from the note! His mission is now clear: make sure to spread the warning that this mysterious person has bestowed upon him: "DON'T TRUST BIG PHARMA'S MICROCHIPS."

Totally Ununimodular

SERIES SUGGESTIONS!

Go watch Link Click, guys! The soundtrack, the character design, the plotting, everything is absolutely stunning and watch-worthy!

[take_that_money](#)

MARINELAND UPDATE: IT'S OVER

(WELL, MOSTLY)

This is a sequel, of sorts, to my article from 152.4, entitled [Marineland Is Unethical. And Worse. A Bad Theme Park](#). I recommend reading that first for context as to what the hell I'm talking about.

For brief context, Marineland is a dying theme park in Niagara Falls, ON, notorious for their incredibly shoddy maintenance, poor treatment of captive marine animals, and *extremely* stubborn ownership who refuse to make any changes.

So what's happened since then? Well, it's not quite over, but it's as over as it could possibly be without it *technically* being over.

It's been an open secret that Marineland has been looking for a buyer for the last couple of years, ever since the founder passed away and operational control passed to his wife. I didn't mention this in my original piece because, in all honesty, I did not believe it.

In my mind, Marineland is a fixed entity, unchangeable by anything. Not the ravages of time, not the demands of protestors, and certainly not by mere capitalism. Hearing this honestly reminds me of how I felt when the Queen died—I didn't particularly like the Queen, but I still assumed she'd outlive me.

But it seems that Marineland's luck has finally run out. They announced at the start of this season that they had found new ownership, and will be implementing a "modified" operational experience. Translation: every ride is closed and ticket prices have been slashed by 80%. All that's left is the scant handfuls of animals left alive and a *lot* of empty space.

The new owners haven't confirmed much, at least not publicly, but most people can read between the lines. Marineland, as we know it, is coming to an end. In many ways, it's *already* over.

There's still a lot of open questions, though. *Something* is changing, but does that mean that they're prepping to close? Or for a radical overhaul of the park? Will they keep the animals? What will they do with the animals if they don't? Who are the new owners, anyways? There's been no confirmation as to who the buyers are. Wikipedia says it's the "King Waldorf Company" (a reference to the park's mascot), but there's no sources for this anywhere else I can find.

The company did not return a request for comment.¹

Marineland was always a zombie park, limping on despite every expectation that it would be keeling over at any moment. What's happening now feels different. It feels like watching a flipped car slowly skid to a halt—still moving, technically, but only out of inertia. The end is a matter of time and physics.

You know what? I think I need to see it for myself.

Dick Smithers

1. No, really, I emailed to ask. Marineland doesn't have a publicly available press contact, so I had to email their customer support team with my questions. They, rightfully, ignored me. I could have called them, but that would force some underpaid Niagara teen to have to answer for corporate decisions made way above them, and I have too much shame to do that.

GOODBYE

SO LONG, AND THANKS FOR ALL THE PIZZA

It's my last meeting of my last term here, so I just wanna take this space to say thank you to all of the **mathNEWS** team, whether you be artists, writers, editors, etc. You all have made me laugh and discover cool new things, and made every other Monday a blast over the past five years. I would always look forward to grabbing the latest issue off the shelf, but all good things have to come to an end.

Thanks everyone, new and old.

PlatypusGod

PROCRASTINATION

A SHORT POEM

Many nights I spent awaking
Doing the projects I felt not making
Due Dates, Deadlines, all draw near
Sleep deprived, my thoughts unclear
Finally done, filled with regret
Cause I haven't begun exam prep yet

Catboy Supremacy

YES, I HEARD THAT YOU ARE IN MONTREAL

AND SAYING THAT SUMMONED ME

I expect you to be fully fluent in French when I return. Failure to comply means that I will be sad :(

Shahabee

P.S. Le Mont Royal est en fait une grande montagne. Si tu penses autrement, c'est parce que t'as jamais pris le calice d'escalier qui commence à la rue Peel.

SQRT(CAUSE) PARTICIPATES IN THE PHOTOVOICE PROJECT

PART ONE OF THREE

I am fascinated by placemaking.

In the course of my six years at Waterloo I've been lucky enough to watch the evolution of space on campus, and finally in that sixth year participate in the process of effecting change. As part of the ongoing design of campus, the PhotoVoice Project emerged in 2011 as part of *WayFinding WATERLOO* – a design handbook; a book published by the School of Architecture (and my #1 summer read recommendation). The work focuses on the pedestrian experience of campus, and at current is being run anew by Mike Pereira of the Research and Technology Park, albeit with heavy alterations. It was a curious use of time going about finding quintessential examples of what sticking points were most in need of change, and where the built environment best reflected the humanity within. If you've got a free couple hours in the next few weeks, give it a shot!

Now, on with my rendition:



This, as far as many students are concerned, is the entrance to campus. Taken from the exit to WCRI next to the South Tower of the ICON building on Phillip St, this shot shows how many obstacles block both sightline and path to approach classes and communities. Especially around rush hour, the road clogs with traffic, only further hindering any connection between neighbourhood and campus. A row of traffic obfuscates a parking lot, with a row of busses flanking the next crossing even further beyond. Fields of concrete exist between the life at “home” and the life at “school.” If one chooses to cross the tracks at E5 they encounter yet another lot, and the possibility of many a dumpster. For what is effectively the main entrance, it lacks the grace and docility that one expects. Pedestrians move on both sides of the road, waiting for gaps in traffic to have chance to sneak through. It is a depressing zone, the cheery yellows of the bus station doing little to liven spirits. (Though, admittedly, it is oddly beautiful past 2am.)



The hallway of the Dean of Science does wonders in physically communicating the intent of our new Dean of Science, Chris Houser, to increase his openness with the Science community. With offices on both sides of the hallway, it gives a sense that the hive of activity includes those who walk through. This corridor is never too busy, but always friendly enough as to not alienate. The choice to avoid secluding to a top floor or corner office adds much to the friendly disposition. I worry that it may be distracting to the employees of the Office for such a layout to continue, but it does send a clear message that this is a place where all are welcome to linger and contribute. The benches and chairs don't encourage nose-in-book studying, but allow for those with some time between classes to add some joy to what could easily have been a very dreary hallway. What I find is the greatest joy in the space is how well it's been utilised. Of course, it's not perfect, but it does wonders towards setting a go-getter reputation for the Dean.

Spaces that I love blend various needs together well. They focus our minds on how we can compliment the work and life of others without substantial intrusion (at least as far as I can tell 😊). They play with our sense of scale, and handle differing numbers of people, but always feel intended for the groups that do use the space. There is no off-kilter occupancy, the room is neither too large nor too cramped.

Spaces that I see a place for change are all interfaces between two worlds. Whether that be the edge of campus, the transition between our built and debuilt environ, or the space secluded but intended for all. These are places where our ideas of space are most in flux, and poor connection makes itself obvious. The lack of clear direction to enter or interact makes a space hostile rather than welcoming.

In the next edition I'm off to EIT to continue exploring our shared built environment.

More to come in 156.1...

THE EVOCATION OF WATER THAT FALLS

Picture this: it's 9pm. You're in Toronto for a company onsite. Hurricane Beryl's last exhale has finally blown over the city, and you're trying to reach an AirBnB you reserved online that, for all you know, might not even exist. Who can say without having seen it. It's an easy ride along Line 2 to get there, but with the rain having let up, every building, every brick, every rail, every stone gains new depth.

As though for the entire city, someone had spellcast it into colour.

You end up walking for almost half the journey. Red neon signs shelter every kilometer as you turn away from the holes through which commuters come up for air. Stores shut as you pass, the city locks itself tightly, seeking small shelter before the day begins anew. Laughter rings out from the bars, and still, on lucky occasion, the nails of panting dogs click along the sidewalk tiles below. All the while, the blanket of the moon and stars settles over the landscape, casting the streetscape into shadow, hue, and memory.

The night grows too dark, and you take the subway. *You emerge into a cold, dark, and quiet street. Clueless as to your destination, you follow through the darkness until you're brought to an open door. Through tight stairwells and carpeted floors of your grandparents' time, you're welcomed into the home of strangers. People you've never known. The incandescent golden light of the urban hearth hallows the cold exterior, and amid the unknown darkness, there's safety.*

You cross out from under the streetlight's golden glow. Only your footsteps echo against the ground, disturbing the slumber of a city that never sleeps. A bird chirps goodnight, and the next subway rumbles beneath. Another wanderer emerges from the side street, leash in hand. You look down, *and understand why that golden space feels like home. In that space, the eyes of their dog stare back at you, infinite yet without secrets, they join with his smile of childlike joy. You pet hair softer than the fresh-fallen snow; though not peaceful, he's peace-bringing all the same.*

The wanderers pass by. You search the night for the sidestreet of your destination, and your eyes glance over the signs of darkened stores. A high-end school *you'd all made fun of the next morning. A subway station containing trains they tell you the dog loves to ride. A pet supply store you'd explored, all five of you, dog included. Each moment a glimpse of a stranger. Each moment the gift of trust.*

All the while, your eyes search. A single glimpse of white fur, a single step of the people you'd so briefly known. The friends of a past time. Does it make sense? What would you even say? If you waved, would they even wave back?

Is this, too, lost?

Eventually you make it to the AirBnB. It's cozier than you could possibly imagine, a basement studio with a turquoise kitchen from a time when spacefaring was a dream that seeped into all things. You reconnect, self-actualize, respond to an

email from a worried incoming first-year. The next morning, under the morning sun, you journey again. For all the journey's mortar and grime, there's nothing else like it. You breathe deeply of every second. Even of the frantic return trip to the AirBnB in the late afternoon to retrieve your forgotten jacket. Yet with all the completeness of the open road under your feet, your eyes search still.

Hurrying back to the train station, you pass by a cafe, *and hiding deep within from the morning light, you enjoy brunch like you'd not had in years. The four of you talk about the city, about the world. About those they see as instruments of oppression. Despite your efforts to be unconditionally agreeable to your overnight hosts, your words betray your disagreement without you even knowing it.*

"New queer or country queer?", they asked about you after a moment's pause. "Country", your partner at the time responded for you. The conversation moved on.

Minutes later, you would figure out what had happened. Days later, you'd still think about it. Weeks, months even, before you register the way anger had skipped the disagreement. Rebuttal, conflict, dropped to make room for background. For making time to understand you, despite your differences.

For the empathy of someone good.

The GO train's engines kick online, and the skyline accelerates past.

The moments of kindness remain.

molasses

POKÉMON BY MERSENNE PRIME NUMBER

- Ivysaur
- Venusaur
- Charmeleon
- Squirtle
- Weedle
- Pidgeotto
- Rattata
- Nidoqueen
- Poliwhirl
- Muk
- Hitmonchan
- Pinsir
- Unfezant
- Litwick

(How tf does Gen 2–4 get skipped? That's a mystery)

Torchic

SLAY THE SPIRE: THE GAME THAT WILL RUIN MY STUDYING SCHEDULE

After going to CUMC, I met a guy who told me to play Slay the Spire because I said I like roguelikes and deck-builders. That guy must have fucking hated me because now I am unable to spend any time on anything else. It's gotten to the point where I've downloaded it on my laptop to play at work, purchased it on my phone, and have it downloaded on my PC.

The game is super addictive, to the point where my boyfriend *watching* me play it snuck into my room at night to go on my PC and play. You know a game is bad when you don't even bother looking up the meta because you've played so much that you've just discovered it on your own.

Upon announcing I was playing Slay the Spire, at least five people in PMC went "yoouoo I love that game." Someone recommended I play Balatro (a game I have been recommended about six times now since starting Slay the Spire—a testament to my gambling addiction/love of poker.)

I have an exam on Friday, I have assignments due all this week, I have projects awaiting my typing hands; but what I do not have is time, for it is dedicated to Slay the Spire.

(please recommend more roguelike deckbuilders)

bsgcg

SLEEP LIKE ME

I hate 8:30 classes, I'd rather sleep.
Now I sleep from 1 am to 9 am.
I hate 9:30 classes, I'd rather sleep.
Now I sleep from 3 am to 11 am.
I hate 10:30 classes, I'd rather sleep.
Now I sleep from 5 am to 1 pm.
Last year I slept from 7 am to 3 pm.
Last term I slept from 9 am to 5 pm.
Last month I slept from 11 am to 7 pm.
Early this month I slept from 1 pm to 9 pm.
Last two weeks I slept from 3 pm to 11 pm.
Last week I slept from 5 pm to 1 am.
A few days ago, I slept from 7 pm to 3 am.
Yesterday I slept from 9 pm to 5 am.
Today I'm going to sleep from 11 pm to 7 am.
Or am I? Nah, maybe I'll sleep from 1 am to 9 am.
Wait, that's technically tomorrow. Oops.

Don't ask me where all the even hours are. I hate 2, and nobody can convince me to not hate 2. What a fucking odd prime.

Amoonguss Dumpy

N REASONS WHY YOU SHOULD PLAY OLD SCHOOL RUNESCAPE

I CAN QUIT ANYTIME I WANT I PROMISE

- It is a good game and you can definitely lose yourself and dissociate from reality highly
- It is a better alternative to being roasted for playing League of Legends
- There are dragons
- Updates more consistent than even the most agile tech companies (seriously, they do like an update a week, literally how)
- You can train runecrafting for 390 hours and feel accomplished
- Capitalism
- Pretty good quests
- Sea Shanty 2
- Please, I am lonely
- In one package deal, you can go fishing, beat up things, beat up things but with friends, do silly shenanigans, and also be a grave robber! What's not to want?
- Ducks
- Being able to sell exactly 13 trout
- Being able to obtain a competitive advantage in rune scimitars
- Being able to obtain a competitive advantage in raw lobsters
- Very high skill ceiling
- It is not League of Legends, so you know it's good

andoiii

PUBLIC SERVICE (FILLER) ARTICLE

BECAUSE ALL FILLER ARTICLES SHOULDN'T MEAN NOTHING

Last Monday, Ontario Premier Doug Ford announced that the newest hospital in the Region of Waterloo, will actually be built in the North Campus of UWaterloo, in the farm fields backing on to the Environmental Reserve. The midtown Grand River Hospital will then transition into focusing on primarily emergency services. More importantly, this allows Waterloo to move closer to becoming the true M of the North. **McMaster of the North.**

Lars Nootbaar

Source: <https://www.cbc.ca/news/canada/kitchener-waterloo/new-waterloo-region-hospital-location-announcement-1.7271115>

UPDATED REVIEW ON SPRING TERM

In 155.2, I wrote a review of the spring term. The short summary was that I am a CS major and allergic to sun and a strong hater of heat, I was dreading the summer term, but at that point in time, I felt that it was fine. I have some updates.

HOLY FUCK IT SUCKS.

Everything that could have gone wrong has gone wrong. It is joever beyond comprehension. Idek how I'm gonna pass. I'm ☹️ close to WFing all my courses and moving to Antarctica for 3 years and fighting polar bears or smth...

Luckily, I do not have any more summer study terms but I am not sure how I will be able to recover from this one.

0.423

N KITCHENER MARKET MOMENTS II

- Walking up to the radishes man. The radishes man asking if you've ever had a radish. You have not.
- Buying an entire bunch of radishes from the radishes man.
- Using maybe $\frac{1}{3}$ of the radishes from the radishes man before they go bad because who in their right mind thought you alone could use that many radishes in a week.
- Realizing this was all because the radishes man gave you a free sample radish that had maybe fallen on the ground.
- Free spice.

molasses

JEFF BLOG

This issue marks the last **mathNEWS** article I will ever write. Given my inability to shut the fuck up, I now have a website where I will post articles on an irregular schedule. There are already three articles up if you want to take a look (it's all C++ right now—my deepest apologies): consteval.ca

That's all, folks! Thank you very much for enduring my dumbass articles in **mathNEWS** for five whole years. Hopefully at least one of them was good.

jeff

HAMDULLAHPUR ATTACKED BY GEESE AT CAMPAIGN RALLY

WATERLOO (mN)—At 6:02 pm Saturday, former President Feridun Hamdullahpur took the stage at fairgrounds in Stratford, Ontario, waving at the cheering crowd and settling into his regular rally speech under a scorching midsummer sun.

A few short minutes later, Hamdullahpur pointed to a projection of a chart that showed a spike in the number of corrupt math students under the man he's running against, President Vivek Goel. "That chart's a couple of months old," Hamdullahpur told the crowd. "And if you want to see something really sad—"

That's when the honks blared, at least five. Geese quickly swarmed the stage, screeching and biting at the former president before retreating. Hamdullahpur clutched his ear as dark-suited Special Constable agents dashed toward him, standing as the agents crowded around him, covering his body with their own. They tried to usher the former president offstage to his left. "Wait, wait, wait," Hamdullahpur said. He pumped his fist as the crowd cheered, and seemed to mouth the words "pi equals three" before agents hustled him down the stairs and to a waiting black SUV.

The Special Constable Service early Sunday identified the attackers as accomplices of a Mr. Goose (of no apparent relation to the Kitchener-Waterloo District Attorney who successfully prosecuted the former president).

An hour after the attack the vast field was declared a crime scene. Police found scores of droppings and a tuft of an attendee's hair at the suspected location of the attackers before the incident.

verdanik

AMAZON PRIME VIDEO SUCKS

Remember that time you were watching a paid streaming service and thought

"Wow, I wish I had a worse selection of content and got three unskippable ad breaks per hour of content"

Yeah neither do I. Suck a big one Amazon, this is a paid service, half of the stuff on your platform requires an additional subscription to STARZ to watch, and you still have the balls to put midroll ads on EVERYTHING YOU MAKE? Only way you could one-up yourself here is by posting spoilers

to your own shows on YouTube the same day they release (I'm joking of course, they've been doing that for months now).

Can't wait for The Boys Season 5 to release in two years, followed by twelve YouTube videos with titles and thumbnails spoiling the Butcher x Homelander makeout finale.

But hey, they're just a little indie company scrounging for scraps. I'd hate for Amazon to feel like they aren't making enough money.

goodtime

GOEL TESTS POSITIVE FOR LAZEEZ POISONING

WATERLOO (mN)— President Vivek Goel tested positive for Lazeez poisoning while traveling Wednesday in London and is experiencing “mild symptoms” including “general discomfort” from the meal, the Office of the President said. Officials say Goel will self-isolate and will continue to carry out all of his duties fully during that time.

The president's physician said in a note that Goel “presented this afternoon with gastrointestinal symptoms with general malaise.” Goel's diagnosis comes amid intense scrutiny of his health and stamina after a disastrous debate with former President Feridun Hamdullahpur that sparked a flurry of concern among partisans that Goel is not up to the rigors of winning another presidential term.

Health officials have warned of recent upticks in Campus Plaza visits and resulting hospitalizations from Lazeez. There has also been a pronounced increase in positive test results in much of the Waterloo region.

verdanik

GOOD TIME

About two and a half years ago, at my first in-person prod night, I nervously and quietly sat near others who I barely knew. That night, I wasn't sure that I would return to the next one.

Today, in exactly the same spot of the room, hardly a single moment passed without good conversation. Coming back after my first prod night was the best choice I made in my time here.

mathNEWS has grown, and that's been surprising. But I'm thrilled to know that more and more others will have a place where they, too, can become who they want to be.

cutlet

N KITCHENER MARKET MOMENTS III

- Stopping in at the Latin American variety store down the road from the market. Being confused about whether it's a restaurant or a grocery store. Buying items including:
 - Good-smelling tea that you'll later discover is pretty much only consumed as liver medicine.
 - A tasty paste that you'll later discover is pretty much only consumed on meat. (You almost never cook meat.)
- Trying to actually make a purchase at the Latin American variety store. Realizing there's no checkout, there's just a guy at a desk in the corner.
- Bringing the items to corner desk guy.
- Watching as corner desk guy doesn't even scan your items.
 - He just looks at them.
 - Intently.
 - You start to wonder if you found the wrong guy.
 - I mean is he even the cashier?
 - Maybe he's just some guy.
 - Is he offended?
 - Should you apologize?
 - Corner desk guy intones a single word.
 - “Eleven.”

☹

- Praying the CRA never discovers corner desk guy.

molasses

EPISODE 65: PERMUTATIONS AND SYMMETRIC GROUPS

MathSoc Cartoons presents episode 65 of the MathSoc Cartoons series: PMATH 347— Permutations and Symmetric Groups!

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 cartoons@mathsoc.uwaterloo.ca.

MathSoc Cartoons

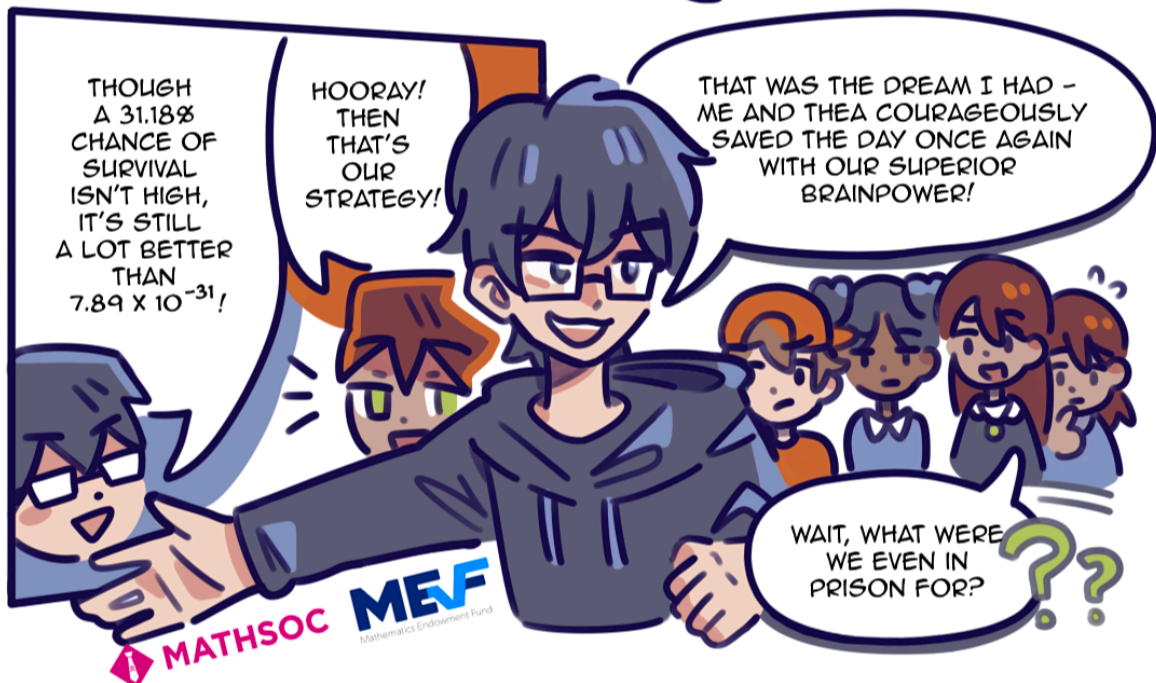
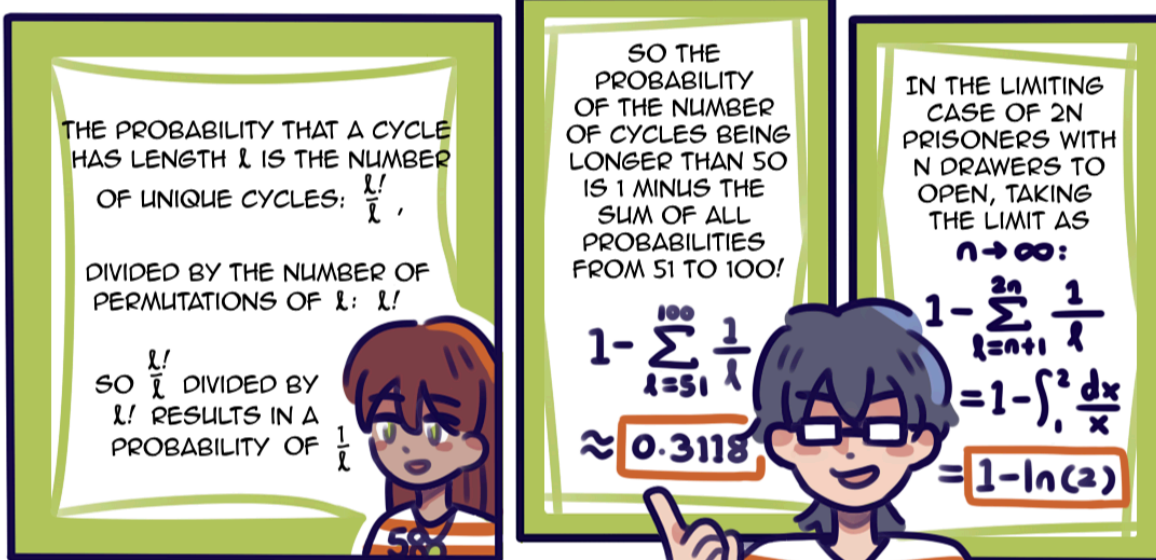
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PMATH 347: PERMUTATIONS AND SYMMETRIC GROUPS

STORY BY: BRYAN CHEN | ART BY: MINGMING ZHANG



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A PUN (PART 6/6)

REMINDER: THIS PUN TAKES PLACE IN AUSTRALIA AND THEREFORE SHOULD BE READ ENTIRELY IN AN AUSTRALIAN ACCENT. STARTED ON P28 OF 155.1, CONTINUED FROM P21 OF 155.5

It had, by this point in Mark's story, gotten quite late in the evening. A cool night air was seeping in through the door. Steve closed the windows to keep out the moths. Next to me, Mark was still sat atop his stool, his collection of empty glasses now starting to shrink as Steve's dishwashing caught up. Steve had given him a cup of water, but Mark hadn't touched it.

"Wait, isn't Ayers Rock sacred to some indigenous groups?" I asked.

Mark hiccupped. "If it wasn't yet, it sure as hell would be after my grand fair. For some bureaucratic reason, we couldn't put our rides on Ayers Rock, but we got about as close as we could. It was quite picturesque, looking down the fairway, the rides and games framing Ayers Rock behind them. It was beautiful.

"We opened to the biggest crowds we'd ever seen. Big lines are good for business, they build anticipation and even sort of feed into a sense of fair mass hysteria. Sweaty masses in line also buy more food and drinks, and it's more efficient for the staff too—if people are in line, they aren't playing games, going on rides, or getting food. Extra guests in line require no additional hires.

"We had everyone working without breaks. There was no time to lose, and we couldn't afford to waste any manpower. Normally, ride operators get to relax while the ride is running because they only worry about onboarding and offboarding, but we had so few staff that we had to stagger the ride starts in such a way that a solo operator could manage multiple attractions. Same thing with games, we had staff hopping between booths to get guests set up and then leaving while the game was being played. Any other down time was spent restocking prizes or cleaning up trash.

"Like all ride operators, for the entire day I was kept busy to the point of exhaustion. It was a hot day beneath Ayers Rock, and there was absolutely no breeze. It was noisy too. The crowds were loud, the ringing of the games' bells and whistles was loud, the rides' rattling was especially loud since we hadn't been able to perform maintenance in weeks, but the fair was back. It was so fucking back. I'm telling you, in those first hours I felt so fucking alive.

"It took me a while to register that something was off. I thought it was the increased number of guests that heralded the extra complaints. I mean, the fair was packed, guests shoulder to shoulder, so there was a statistical certainty some people would get unlucky with bird poop. I've cleaned my fair share of it off rides, so I know it's not that uncommon. Only when I first felt a clump of bird poop land on my own shoulder did I look up and realize there were a weirdly large number of birds flying overhead. I didn't have time to clean it off since I was operating multiple attractions, so I continued working with it running down my shoulder. About fifteen

minutes later, another clump landed on my head. It mixed with my sweat and began dripping down my forehead and into my eye, so I couldn't safely operate rides and I had to rush to clean it off. On my way to the fountain, I noticed that every guest I saw had at least one dropping on them and that the fair was mustier than usual, it smelled like guano. Guests were crowding the fountain already, trying to clean off the bird poop. I pushed through them, but as I was rinsing off my face, I was interrupted as another clump landed on my back and started dribbling down. As I looked up, I noticed more and more droppings were falling from the sky—like a light hail.

"Through the crowd behind me pushed one of our game operators. His face was almost entirely covered in runny bird excrement, and he was shouting for my attention, spraying saliva and bird poop as he did. 'Look!' he shouted at me, giving me a pair of binoculars and pointing at Ayers Rock. Like everything at the fair, the binoculars were filled with sand, but they worked well enough. At first, I had trouble focusing on Ayers Rock through the binoculars since there were so many birds in the way, but after a minute or so, I glimpsed him. Duffy. That bastard had climbed to the summit of Ayers Rock with two of those inflatable noisemaker sticks and was causing a ruckus, scaring birds off by the hundred. Naturally, since it was the sharp-tailed sandpiper migration season, there were thousands and thousands of them all over Ayers Rock, and they were all being shepherded towards us, blotting out the sky and shrouding the sun. Darkness fell. The noise of the fair—all those sounds of joy—was drowned out by the beating of millions of sandpiper wings and screams for shelter. People panicked and fled, trampling each other. Birds and their crap started getting stuck and clogging the machinery. The steady downpour of feces grew until it was a torrent, no, a maelstrom of waste. Our tents were collapsing under the weight of the refuse. In the stampede, I caught a foot to the face and lost consciousness.

"I awoke, who knows how long later, to a desolate fair devoid of human life. The bird dung fell from me in clumps as I stood, assessing the damages. Tents collapsed, rides trashed, everything covered with a thick crust of bird shit, shining brightly in the sun, and all around me thousands of sandpipers were watching, staring down at me in silent contempt."

"Well," I asked, "was there anything you could do to reclaim any sort of value from the fair?"

"What could I have done?" Mark replied, despondent. "The fair's afoul with the fowl of Ayers."

The End

HAPPY INTERNATIONAL gridMASTER DAY

gridCOMMENT 155.6

top o the morning to all my gridWORDers!!

we are in the final stretch. good luck to all. that is all.

now. down to business. last issue, i asked y'all "what should the next gridQUESTION be?" and you all said:

- jeff & cutlet: *EGG*
- Rijrya: *what would you do if you found a dead body in a hotel room?*
- aphf & Lars Nootbaar: *ask, what's your crossword completion victory song*
- AHopelessRomantic: *What do you see for yourself 17 years and 3 months from now?*

ok guys do NOT read on if you don't want a spoiler for the first gridQUESTION of v156 because this is in fact the last gridWORD

of v155 ok guys are you ready 3 2 1 duhdudhdudhdudh Rijrya!! congratulations on winning the final 5 dollar math cnd gift card of the term. please pick it up at the mathNEWS office in MC 3030!!!! the rest of the questions can be some nice food for thought for you all

also, i know that in the past, we would just rerun an old gridWORD, but if you really want to do an old one, you can just go and do it yourself tbh. things are changing around here—please enjoy today's :) and anyways, as previously stated, there is going to be no gridQUESTION. thank you friends for your participation, and i hope to see you all next term :))))

spaghettinhalers

ACROSS

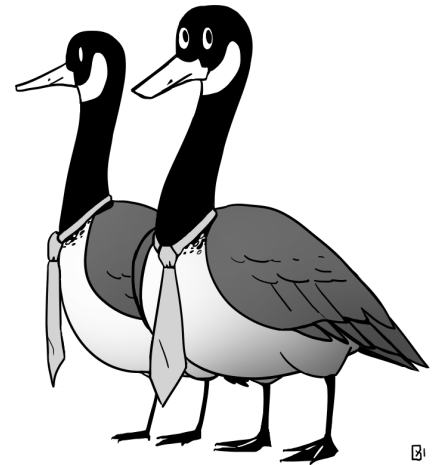
- Flat-faced dogs
- Binges
- ___ Braus*
- Hogwash
- Taj Mahal site
- Group of eight
- Small wild ox
- Dove sounds
- Feathered friends
- Predatory animal with a distinct sound
- Fart gas
- Gasket
- Finale
- Crèche trio
- Global Infrastructure Partners, abbr.
- Egyptian Christian
- Creamy cocktails
- Overact
- Pay dirt
- Does a ranch hand's job
- Surrender possession
- Skin problem
- It may be stroked
- Brusque
- Red-white-and-blue inits.
- Computer acronym
- Single-celled organism
- What 9-Across, 63-Across, 4-Down, and 5-Down would all be hearing today*
- Nothing-but-net sound
- Fertilizer
- Finnic language

- Door, in Dijon
- ___ Kornfeld*
- Skibidi gyatt rizz locale
- More fitting
- Employs
- O.K.'s

DOWN

- Sacred hymn
- Arm bones
- Hit the town
- ___ Inhalers*
- ___ Ardern*
- Past, to poets
- Rum drink
- Scarf
- Type of thought
- Blackberry drupelets
- Oddly
- Made a fool of
- Pop-ups, e.g.
- Solo in space
- Eastern discipline
- Encircles with a belt
- Worth
- Sacks
- "Looky here!"
- Budgie's "snout"
- Alpha's opposite
- Preppy top
- Frown
- Ten-event competition

- Convert into code
- Wisecrack
- Cheers
- Drunk
- Social class
- Chessman
- Potatoland, say
- Flavourful
- Proofers' catches
- Japanese citrus
- Support group?
- Vacation location
- Doo-___



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

1	2	3	4		5	6	7	8		9	10	11	12	13
14					15					16				
17					18					19				
20				21					22					
23									24				25	
			26				27	28				29		30
31	32	33			34	35					36			
37				38		39				40				
41					42				43		44			
45				46					47	48				
	49		50					51				52	53	54
		55				56	57							
58	59					60					61			
62						63					64			
65						66					67			

mathNEWS is the best thing that's ever happened to me.

A 100% SINCERE mathNEWS EDITOR

LOOKAHEAD

SUN JUL 28

National Waterpark Day

MON JUL 29

Lasagna Day

TUE JUL 30

Last day of class

WED JUL 31

Drop with WF ends
National Mahjong Day

THU AUG 1

Final exams begin

FRI AUG 2

Final exams stop

SAT AUG 3

SUN AUG 4

Final exams resume

MON AUG 5

Civic Day
Final exams stop

TUE AUG 6

Final exams resume

WED AUG 7

THU AUG 8

Sneak Some Zucchini
onto Your Neighbor's
Porch Day

FRI AUG 9

SAT AUG 10

LAST ISSUE'S gridSOLUTION

1	A	2	C	3	U	4	T	5	E	6	K	7	I	8	N	9	G	10	S	11	H	12	E
13	P	A	N	E	L	I	L	I	A	14	I	L	I	A	15	W	O	M	16	B			
17	E	M	I	L	E	18	D	E	L	P	H	I	N	I	A	19	H	I	N	I	A		
20	R	E	V	21	V	E	N	U	E	22	E	V	E	R	Y	23	E	V	E	R	Y		
24				24	E	M	O	T	E	S	25	A	L	E									
27	28	R	R	A	N	C	Y	29	C	O	L	L	E	G	E	30	31	32					
33								34	35	B	O	N	S	36	T	A	B						
37								38	S	E	I	N	E	39	S	H	M	O					
40								41	C	O	A	L	S	42	Q	U	E	E	N				
43								44	E	L	Y	T	R	O	N	45	46	E	Q	U	E	R	Y
47								47	E	A	T	48	E	Q	U	A	T	E					
49	50	51	S	A	G	E	S	52	U	S	U	A	L	53	54	55							
56								57	H	O	R	S	E	58	59	I	G	L	O				
60								61	A	D	E	N	62	F	O	L	L	Y					
63								64	R	U	N	T	65	Y	O	Y	O	S					

THIS ISSUE'S gridSOLUTION

1	P	2	U	3	G	4	S	5	J	6	A	7	G	8	S	9	S	10	A	11	S	12	H	A
14	S	L	O	P	15	A	G	R	A	16	O	C	T	A	D	17	A	N	O	A	18	C	O	S
20	L	A	U	G	21	H	I	N	G	22	H	Y	E	N	A	23	M	E	T	H	A	N	E	25
26																								
27																								
31	32	33	C	O	P	T	34	A	L	E	X	A	N	D	E	R	S	36	D	E	R	S	30	
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49																								
58	59	S	W	I	S	H	60	U	R	E	A	61	L	A	P	P								
62																								
65																								

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MAILING ADDRESS

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