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mastHEAD

"WHAT'S THE FIRST THING YOU'LL DO WHEN IT STARTS SNOWING?"

I miss snow!!! I want to feel the little blossoms of cold on my skin, the bite of the wind as it blows flurries across campus… The endless traversal of slush and over-salted pathways, it calls to me… The Canadian core memory of navigating the orange haze of sodium-vapour lamps, illuminating each falling snowflake as they fly through the cones of light… In my hometown of Calgary it was snowing in late September. It's so messed up that we do not have snow here yet. Curse El Niño. This is the worst thing that climate change has ever caused.

The first thing I will do when it starts snowing is frolic around on my walk to or from the bus stop (depending on the time of day), followed by doubling over from despair as I realise how much more unreliable the transit schedules are going to become when the roads get slippy and slidy. I guess there are some downsides to snow after all. Growing up, school was never cancelled in Calgary, no matter if it had snowed 40 cm overnight or if the windchill temperature was -40 °C; if our buses never came, we simply had to walk or find our own way.

On one such bus-less occasion, while I was walking to school through the snow with my friend, a stranger in a car with his kid stopped next to us and offered a ride. Despite the previous repeated warnings of every adult in my life, I did end up getting into the car of the stranger; he did indeed drop us off at our school, but that could have also ended very unfortunately. All this to say, I was amazed when the University cancelled classes for snow a couple times in the previous Fall and Winter terms. Yet another reason I yearn for snow.

In non-snow-related happenings this issue, we have many rankings and reviews of board games and video games alike, as well as NHL jerseys and a continual dissertation on the young adult book series *Keeper of the Lost Cities*. If you find yourself feeling chillier as winter progresses, there's no better way to warm up than with a nice hot cup of **mathNEWS**.

birdED
Editor, **mathNEWS**

Cover art for this issue provided by arrow.

MrBllueSky	Shovel it in Flip Flops
beef	probably drink water, it's important to stay hydrated
fingersinsockets	idk cry
is.all.on	make a snow angel
	handle it
Dollar Store Person	give up.
Lars Nootbaar	Buy the finest No Name Corn Syrup, the finest popsicle sticks (no splinters) and make the finest maple taffy in the University Ave snow pile
axon_terminal	go sledding!! granted my sled is at my parents' house but at this rate the first snow honestly might be when I go home at the end of term
BeesKnees	Go inside
writing123	text everyone "it snode (it snew)"
crimson	nom nom nom
ignis	night time walks :)
Ryan Cikoja	Walk in the snow and hold hands with Ethan
lychee	frolick around all joyously for .2 seconds before going back inside

ARTICLE OF THE ISSUE

This issue's AOTI is *writing123*'s *Powerscaling Disambiguation Pages*! A very creative idea indeed. Let's hope the Michael Smiths of the world can catch up to everyone else soon. For making us laugh, and making me imagine a horrible world where my last name is also "Smith", please come pick up your prize in MC 3030.

barkED
Editor, **mathNEWS**



Why do I feel like I need to talk to someone about finding my gun?

AWAB QURESHI, mathNEWS EDITOR FOR FALL 2026
ALONG WITH AUBRIE CHAN, ARIEL CHEN, MADIHA MANSOOR,
SARA NAYAR, NOAH NAZARETH, AND ALEXANDER NOVIKOV

mathASKS 162.5

FEATURING THE LOCAL TIRED AND OVERWORKED NEW EDITOR SCREWED

REVIVE: GIVEN ABSOLUTE DICTATORIAL CONTROL OVER mathNEWS, WHAT IS ONE THING YOU WOULD CHANGE?

Good question! I think **mathNEWS** is honestly pretty fire as is, I think it's been around long enough that a lot of things run pretty smoothly and any attempts I'd take to meddle would probably change things for the worse. That being said, one thing I might want to change (or rather, bring back), would be the disorganisational meeting/Beginning of Term/whatever it's called. One of the other editors told me (I think maybe I also read it in an old orientation guide from the early 2000s?) that **mathNEWS** used to have a beginning of term event for writers and editors to just… hang out? I think that might be a fun idea to bring back; as is, **mathNEWS** doesn't have many (or really, any) purely social events, so having a designated event to just chill and hang out before everyone gets cooked by midterms could be fun.

WAFFLE: WHY IS THERE A RACCOON LIVING IN MY WASHROOM FAN. DID YOU PUT IT THERE? WAS IT A PRESENT? PLEASE TAKE IT BACK.

[Contemplative noise.] Ok, I can take a look! *[Whispers to raccoon.]*

Aww, little buddy just wants to be friends! He just wants to chill with you for a bit (and rent is *rather* expensive, as we all know). I'd recommend just getting to know him, and who knows! Maybe you'll end up with a raccoon army of your own!

REVIVE: GIVEN ABSOLUTE DICTATORIAL CONTROL OVER PMC, WHAT IS ONE THING YOU WOULD CHANGE?

Ooooohhhh… someone knows ball 👀

So yes, for those of you who may wonder where this question is coming from, (because, like, PMC? That's so random! There is DEFINITELY not an incestuous relationship between these two MathSoc funded organizations, nosiree…[1]) I was in fact PMC president last term. It's a great club, and if you're at least tangentially interested in any of pure math, applied math, or combinatorics and optimization, I'd recommend you check it out! But anyway, back to the question, I feel like the free food offered at events could probably be brought up a notch. It's definitely not *bad* now, but so many other clubs seem to blow it out of the park with offerings like bubble tea, catered food, etc. However, that *would* involve asking for more budget…

FARFROMHOME: WHAT'S YOUR FAVOURITE DAD LORE STORY?

This is also a really good question! (Or at least, a question whose answer can go in very many different ways…)

One story that comes to mind (due to the fact that I still don't know how I pulled this off) was that time I straight up pretended to be super rich in order to get really good treatment at a high end jewelry store. I have no idea how this worked, honestly, I was about 17 and definitely *not* dressed like someone drowning in money. Somehow, this worked, and I ended up trying on 1) extremely fancy watches, 2) >$6000 diamond encrusted earrings (how the hell does anyone unironically not bat an eye at spending that much on earrings that small???), 3) fancy rings I forgot the price of (probably also valued in the thousands, honestly. I remember there were also real diamonds involved). I guess that's the power of larping: if you're confident enough, you can pull it off.

MRBLLUESKY: WHAT'S THE CRAZIEST DAD LORE YOU GOT?

Interesting companion to the previous one, which probably means I can't tell the same story. I guess in this context, I'll interpret "crazy" to mean remarkable or unbelievable.

I think something "crazy" (according to that interpretation), as in, something I can't quite believe, is how many really random things I've done and how different they are. I mean, when I was really young, I was convinced I was going to be a professional ballerina, and I actually got pretty close. I was at a pre-professional school pulling hours basically equivalent to a full-time job, while in school. When that didn't pan out, somehow I decided that I was going to do digital art and animation and ended up animating (as well as hosting) a kids' show for CBC. Somehow, I'm now here studying math and computer science, so yeah, I think the story of that trajectory is pretty crazy. Sorry if that wasn't the kind of dad lore you wanted to hear, you can find me pretty easily and ask for a more satisfying answer if you want!

FINGERSINSOCKETS: WHAT IS THE WORST PIZZA YOU CAN THINK OF THAT CAN BE SUBMITTED FOR prodNIGHT?

Funnily enough, I was actually talking to someone about this before last **prodNIGHT**. Some contenders I put out were the giant cracker (well done crust, absolutely *nothing* else), the all olives pizza (black olives, green olives, sundried olives; as you can tell, I do *not* like olives), and… hey wait. Some of you are getting ideas, I can just tell.

Maybe I'll stop here…

FLOWERYYY_: WHY DID YOU WANT TO BECOME AN EDITOR FOR mathNEWS?

I first found **mathNEWS** in 1A after being lured here by some of my friends with the promise of free pizza, and I liked the vibe. I also like how **mathNEWS** presents itself, that is, as a publication where people can just express whatever they want to say, without any judgement. Like, when reading **mathNEWS**, you'll find articles like "yeah so I just wrote this for free pizza lmao" alongside extremely well-thought-out, highly informative pieces of writing. I also *did* kind of miss working in journalism, and so I guess I found **mathNEWS** a nicer way to get involved in the field again, without the stress of it being my job and having to uphold rather rigorous publication standards. (Not to say that **mathNEWS**' standards are on the

floor, but at least they don't regulate your pronunciation of kilometre.)

CAZBER CLINT: IF PLATO'S THEORY OF THE IDEAL WORLD IS REAL, WHAT DO THE PEOPLE IN IT SMELL LIKE?

Being so for real, I'm kind of noseblind (haha, over a decade of really bad seasonal allergies will do that to a person). I could probably tell you what the people in the ideal world *don't* smell like, which is:

1. Not like my elementary school's locker bay. I had a locker there in grade 7. HOLY Axe body spray and BO… not a fun experience in the slightest.
2. Not like any MC classroom full of CS (and yes, oftentimes math) majors. No windows + no showering = not a fun combination. Ever since becoming a math major, I haven't been able to do computation, but the above is *definitely* still something I can compute for myself.

AXON_TERMINAL: DO YOU KNOW ABOUT OUR QUEEN NESSIE RACCOONMILF, AND IF SO, DO YOU HAVE ANY OPINIONS ON HER RESEARCH?

Hmmm, give me a second. *[Quickly Googles.]* OH YEAH, HER!

Yeah, I've seen a couple of her reels pop up on my Instagram feed. (For those of you who may not know, she's @lochlanoneil there, and her research focuses on pygmy raccoons in Cozumel, Mexico.) To be completely honest, I don't know too much more about the specifics of her research, but I do know that the specific raccoon species she studies is critically endangered as a result of human activity (sadly, like very many other animal species), so drawing attention to them in order to aid conservation and raise awareness to the negative impacts people's actions can have on wildlife is pretty much always a good thing. (I will eat my words if the way this creator does it is controversial, though)

BEESKNEES: FAVOURITE BUG?

Ooh, I don't think I've ever thought about this before!

I think a strong contender could be the Death's Head Hawkmoth (i.e., all species of the genus *Acherontia*) because, well, they look REALLY cool (seriously, that's amazing aura) and they have a name to match. I mean, Death's Head Hawkmoth?? That's fire. Even better yet, *Acherontia* is derived from the Acheron (i.e., the river of woe), and the names of the three subspecies are also similarly derived (*A. atropos, A. lachesis, A. styx*), with the first two species names being derived from the Moirai (the Fates in Greek mythology) and the last one coming from the river of the dead.

I mean, isn't that just fire? It scratches both my inner Edgelord Emo Kid™ and Greek mythology-obsessed middle schooler itches.

DOLLAR STORE PERSON: HOW THE FUCK DO YOU HAVE TIME TO DO ADVANCED COURSES AND URA AND mathNEWS EDITING TF TEACH US (ME) SOME TIME MANAGEMENT SKILLS PLS

Uhhh… I've got news for you… I don't.

No seriously, I basically *[Editor's note: not basically, I most definitely]* have no life. Every single week has at LEAST three non-trivial assignments due, alongside midterms (I had at least one midterm every week between the week before reading week and last week, and I have two more this week!! I am writing **mathASKS** answers instead of studying for them, it's great!!!) and who knows what else. It's bad. I really need to do fewer things.

I guess a better answer could be, I just got used to it? I was basically juggling school, two jobs, and extracurriculars in high school, so I figured I could pretty much do the same in university (yeah, no, I don't think I can keep it up for much longer). Basically, due to this, I got extremely used to forcing myself to do things I didn't want to do for very long periods of time, at the cost of my mental health. Seriously, I'm at the point where I regularly am studying/doing responsibilities for 8–10+ hours a day and have no hobbies…

So yeah, TL;DR: I'm basically doing all of this by having extremely unhealthy habits. Honestly, it's not worth it. I'm sorry this advice wasn't better…

SMALLMOUTHBASSHATER: FAVOURITE FISH?

[Cackles] hehehe, I'm *so* tempted to say smallmouth bass right now. It *would* actually be believable, given that smallmouth bass was the first fish I ever caught the first time I went fishing when I was like, eight years old, but no, I'll spare you, haha.

I think if I had to say, it's probably the Caribbean Sharpnose Shark, given that I'm about 90% sure I ended up swimming on top of one while on vacation. It was pretty awesome to see what was most definitely a shark, especially considering that was my first time ever seeing one in the wild. I think that experience had me really interested in sharks for the next little while after, and it was awesome. Sharks are cool.

RAINBOWKITTEN: WHAT'S YOUR FAVOURITE UNCONVENTIONAL EDGELORD SONG? (E.G. ONE WITH UNIQUE INSTRUMENTS, LYRICS, VIBES, ETC)

Honestly, midterms have been hitting hard and I haven't had time to listen to much music lately 😭. I don't quite think this fits the definition of "edgelord" but one song I found really cool was "Kiss of Death" by New Order. It was released as the B-side of *The Perfect Kiss*, and to me, the vibes are definitely on point. I highly recommend listening with headphones on.

1. https://mathnews.uwaterloo.ca/wp-content/uploads/2026/01/mathNEWS-160-2.pdf#page=43

A GUIDE TO RUNNING AWAY

AS SOMEONE WHO'S NEVER DONE IT

[Content warning: depictions of poor mental health—this is fictional!]

1. DECIDE YOU WANT TO RUN AWAY

In the first place, you might be wondering, wouldn't someone reading this guide have *already* made up their mind? But the thing is, running away tends to be something both premeditated and not. You think about doing it for ages and ages, toying with it, but nothing more. A fantasy that stays in the back of your mind—and maybe you bite the bullet, maybe you don't. But what's most important is that you need to have decided by the time you read this, because running away is meant to be something consequential. There's no turning back now.

2. FIGURE OUT HOW (OPTIONAL)

The beautiful thing about GO Transit is the remarkable ease in getting around most of Southern Ontario. The 30 Bramalea will bring you to a train station where you can then take the KI to Toronto. There's VIA Rail at Kitchener GO. The world is your oyster.

Or maybe you have grander plans? Maybe you have a car? Depends on how spontaneous you want to be. Because—every step you take between deciding and actually doing it, is an opportunity to waver. And a calculated escape isn't really running away—you need to feel the rush of freedom and the uncertainty of the future. But not everyone's the same, so here we are.

I mean, I've thought about it. Traced GO route maps, traversed Google Maps, made nonsensical travel plans to some fuck-off town near Hudson's Bay. If I wanted to. If I had to. Hey, there goes the 17, maybe I might as well just—

3. GO FOR IT

It might've been a spur-of-the-moment decision. Who knows. The Hamilton GO bus is in front of me, door open, and like crossing the street I simply tap my PRESTO card and enter the bus. I go upstairs. I sit down. No one's here, which is expected—classes are still going on. Who's going to Hamilton right now?

Well, me, apparently. I look out the window and pretend that I'm just taking a convoluted path to class. It's fine. This is a normal part of my commute. I watch students with backpacks walk the opposite way. Mine is on the seat next to me. Not that I believe in seat hogging, but there's maybe two others on the bus.

Oh, look. We're moving now. I know I could get off if I wanted to. Kick up a fuss, get off early. It's never too late to back out.

—No, I can't. Like I said, it needs to be consequential.

❦

I feign sleep so I can try to fool my body into relaxing. Actually, I'm nervous. Really nervous. I'm missing classes, I have assignments due tonight, no one knows where I am, I could just go missing and the world would continue on as always. I mean a lot to people, but in ten years, fifty, who'd care? Human memories are incorporeal. Flimsy.

But that's something to—

4. THINK ABOUT THE CONSEQUENCES LATER.

You're running away for a reason. Let future you take care of the rest. Maybe you'll never need to take care of it. More importantly—running away is about the present. So I look outside—I've never been to Hamilton before. I know a few people who went to McMaster for university, but I haven't seen them since graduation. I wonder if they think of me, like I do of them.

Wouldn't that be funny? If I bumped into one of them. *What are you doing here?* Superimposing what they meet over what they knew in high school—I thought about it in high school, too, but never did it.

My hands jitter and I can feel a bone-deep frigidity about me. The AC is blasting. Should've brought a sweater. Should've brought *anything* with me, actually. But no, that doesn't matter, *that's the whole point.* And I'll figure it out once I get sick of Hamilton. Or maybe I keep going.

Maybe I never figure it out.

5. KNOW THAT IT'LL BE OKAY

Arguably, this is rather similar to Step 4. But there's a difference between ignoring it and accepting it, because there are consequences. You will feel them, because thinking about it later is a *step,* and "later" will be soon; will be *now.* But it'll be okay.

Things will be okay. And if they aren't—

6. DO IT ALL OVER AGAIN

planet b612

A blackBOX a day keeps whitespace away.

A HEALTHY mathNEWS EDITOR

RATING CHESS VARIANTS

This article was partially inspired by the article *Ranking Sudoku Constraints* by *thepuzzler* last term in **mathNEWS** 161.5. Decided to give a shout-out to thank her for being the only person other than my parents, Gnosis, and Kal'tsit to remember my birthday. I might have just doxxed myself, but whatever.

WESTERN CHESS (8.0/10)

The game we are most familiar with, given a high score just for being classic. Much like everything else in this list, it is derived from the ancient Chaturanga. The rules are pretty simple (compared to its Asian cousins), and it is a game where everyone can have fun as long as they know how the pieces move. I would recommend watching games that are not at the very top level, though, as that is where people actually want to fight instead of grinding each other out in a theoretically drawn game.

SHOGI (9.0/10)

From Japan. It is played on a 9x9 board instead of 8x8, and has one of the weakest piece sets — you have just one rook, one bishop, two rooks that can only move forward, and the rest are all short-range pieces. It is unique for its drops: once you capture an enemy piece, you can drop it pretty much anywhere you want on the board as yours, including to checkmate. As a result, players are forced to balance offence and defence, usually spending the opening moves to construct a fortress for their king. It is fun to watch — even computer games give many decisive results thanks to the much larger game tree — but not quite beginner-friendly, as the rules are pretty complex and if you play an illegal move, you lose instantly. But unlike chess or xiangqi, it is a lot harder to get instantly checkmated.

XIANGQI (8.5/10)

The variant from China that I play with my uncle. In chess, having an extra rook in the endgame is a decisive advantage, but not necessarily in xiangqi due to "defensive pieces" — they can only move on your half of the board. This is why strategic pawn or even piece sacrifices are common in the middlegame, because even if your idea doesn't work, you can always start defending and trading down into a drawn endgame. Of course, you should always go for your opponent's king whenever possible, which is made easier by the board being much more navigable without all those pawn chains. Oh, and perpetual checks are not allowed, while stalemate is a loss for the stalemated player, if you hate those rules.

JANGGI (6.0/10)

Very similar to xiangqi, popular in Korea. The rules and pieces are pretty much the same, but uniquely, you can choose to pass your turn if you wish. That could result in a lot of draws, since even lopsided endgames in chess often require zugzwang to win. But to compensate for that, there is an additional rule of counting material points to decide a winner. Personally, I think that is a pretty boring rule, which is why I gave it a rather low ranking.

KING OF THE HILL (6.5/10)

Regular chess with the extra win condition of getting your king to the center of the board. The problem is that in the middlegame, carelessly pushing your king forward can easily get yourself checkmated. Hence, this variant is not that different from regular chess in the opening and middlegame, but still keeps your eyes peeled for a king-rushing opportunity, should one arise. But overall not that fun, in my opinion.

3-CHECK (0.0/10)

Win by checking your opponent three times. It is very imbalanced as White has a huge statistical advantage due to having the first move, and it is even suspected that White has a forced win. The annoying thing is to remember that you can always throw all your material away to give three checks, but in my opinion, variants are supposed to be fun tweaks of the original game, not throwing everything pre-existing out of the window.

CRAZYHOUSE (7.0/10)

Chess with shogi's drop rule. It is annoying as you need two sets to play it (shogi pieces are not colored but rather determined by the direction their wedges point). Also, the drop rule in shogi is interesting because shogi pieces cannot easily retreat, are much weaker than their chess counterparts, and promotion isn't as overpowered. In crazyhouse, material is pretty much nothing (a pawn is more powerful than a bishop as you can drop it directly on the 7th rank), and initiative is everything. Maybe this is not neutral, but that is not really my style.

HORDE (3.0/10)

One side has the regular pieces, and the other side has an armada of pawns. Like 3-check, it is very imbalanced — Black, with the regular pieces, has a huge statistical advantage, and is suspected to have a forced win (Stockfish gives an evaluation of -5 for the starting position). But at least it is fun, and there are some tactics involved!

4-PLAYER CHESS (9.0/10)

Double the players, double the fun, and quadruple the tactical opportunities! King safety is very important here — if you (Player 1) are checked by Player 2 and Player 4 hangs their queen to attack yours, you have to answer the check and let your queen be captured. You will often find people joining forces to attack — although explicitly making alliances is not allowed — and just as often, they betray each other. This is the variant where you should *never* resign, since stalemating yourself gives you just as many points as checkmating someone, and you never know when your enemies will start

fighting each other to the death, only to leave you to put in a few swords to kill them both.

Gardener

AN INTRODUCTION TO THE JAVA® VIRTUAL MACHINE CLASS FILE FORMAT

Most Java programs come with a `.jar` file. It is a zip file that contains the `class`es Java needs to load, plus some information about the entry point to run among other things. Java files compile to `.class` files, which are then loaded and executed by the Java Virtual Machine (JVM). Chapter 4 of the JVM specification is all about the format of the class file.[1] That, alongside Chapter 6 (which is about the instruction set), is most you'll need to consult if you're working with reverse engineering Java. Unless you're writing your own decompiler/parser, most people now use tools like Recaf[2] that should have just about everything you need.

After recognizing the magic value `0×CAFEBABE` (weird) from the beginning, the next interesting thing is the constant pool. This stores all kinds of constants: integers, floating point numbers, strings, and class and method names. The strings are encoded using a scheme that modifies UTF-8 called CESU-8 (though not exactly since it treats `\0` specially).[3] Under this scheme, all codepoints below `0×FFFF` are encoded as UTF-8 as normal (though again, `\0` is encoded differently), but codepoints above that split into two fake codepoints called surrogates in an UTF-16 fashion. This surrogate pair is then encoded as UTF-8. Other than that, the size of the constant pool is encoded as the actual size plus one. So the valid indices to the constant pool are 1 to (encoded constant pool size) -1. Now, for some reason, JVM spec authors decided that the entries for the Long and Double constants (numbers taking 8 bytes) take two entries instead of one. So you have to account for that too. This resulted in the following humorous quote being seen in the JVM spec since Java 7:

> *In retrospect, making 8-byte constants take two constant pool entries was a poor choice.*

After parsing the constant pool, you get the flags for the class, the class's super class and interfaces, fields and methods, and attributes. One interesting access flag is SYNTHETIC. Because Fernflower, the Java decompiler built-in to IntelliJ IDEA, hid any methods or fields tagged as SYNTHETIC, some anti-circumvention programs (obfuscators) inserted SYNTHETIC flags for all methods.

Attributes are variable length sections possibly attached to fields, methods, or classes. One such attribute is called `Code`. It stores the code associated with each method. Because attribute names are strings in the constant pool, the string "Code" appears at almost every Java class due to having to encode the `Code` attribute. One blog post reuses the "Code" string as the method name in order to save space, which is arguably a more interesting read than this one.[4]

A sibling to the `Code` attribute is the `StackMapTable` table. This stores information about the size of the stack and the types of the values on the stack and used in the locals. Generating this for arbitrary bytecode is hard since it requires static analysis. The OW2 ASM library supports this by just setting the `COMPUTE_FRAMES` flag appropriately. But reverse engineering people still sometimes struggle with this and some programs they distribute require verification to be bypassed using `--noverify` when launching.

That's about it for the things to talk about. No effort was made to make any of this information accessible (sorry), although it's not that this is super useful information. I'm only writing this because I know a bit on this and I couldn't think of other things to write. Go read *Aphyr*'s article, I guess.

beef

1. https://docs.oracle.com/javase/specs/jvms/se27/html/jvms-4.html
2. https://github.com/Col-E/Recaf
3. https://en.wikipedia.org/wiki/CESU-8
4. https://aphyr.com/posts/341-hexing-the-technical-interview

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UW'S BASTION OF ERUDITE THOUGHT SINCE 1973

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PHOTOGRAPHS

"There you go," I said, handing my phone over to Ethan so that he could type the name of the restaurant he planned to take me to next weekend for my birthday.

After typing the restaurant into my phone's notes app, he then accidentally tapped on the photos app. I was greeted with a picture that I screenshotted from his orchestra's Instagram from his first year. His dark blond hair—though his hair now looked light brown given that there was less sunlight—was combed to his right and gently falling over his forehead in the picture. He still had his rectangular, non-photochromic glasses back then.

"Ryan?" he said, grey eyes looking up at me. *Oh no.*

"Uh… yeah? I…"

"I brought back the haircut for you, actually." Ethan reached out to my hand. "I guess I was figuring out how to how to attract you; I knew you preferred my hair to look shorter like that, and I thought the middle part look was too messy anyways."

I gently squeezed his hand. "I didn't know that you brought back this look *just* for me," I said, running my thumb slowly against his hand. "But at least I didn't need to look at the same picture of you all the time to see you with that look."

"Yeah!" he said. "What other pictures of me have you saved?"

"I got one from when we ran into each other last October," I said. I tapped on the *Favourites* album and opened it up. "It's kind of too bad you had new glasses by then though. I wish I could see your eyes."

"Yeah, but now you get to see them all the time!" Ethan said, gently turning my face towards him. I smiled and briefly glanced at the mole below his mouth. "I can't believe we didn't know we liked each other back then."

"I honestly kind of knew from the way I want to hug you after *every* class, but I guess some of the signs have always been there," I said. "Can I kiss you?"

"Yeah, of course," Ethan said, gently squeezing my hand.

I leaned in to kiss his forehead, and he ran his thumb against my hand as I did so. "I… the first day I saw you at MATH 108, I literally ran over to said how you 'looked great,' " I said. "So I guess that was a sign."

"Yeah, that was *definitely* a sign," he laughed, just like the "lol"s he sent over text. "But it gave me the confidence that I'll make friends here. Or even something more." He then kissed my lips, tongue running over them as he did so.

"I've been wanting a boyfriend so bad," I said after he pulled away. "And I didn't know I'd get one here."

"I get it, I didn't know I'd love you like this at first," he said before getting his phone and tapping on it. "I actually have a picture of you saved too."

I sighed. "I don't think I look *that* good, honestly."

"That's what you think," he said. "I often look at it when I want to imagine myself with you." He then showed me an Instagram post from January where I was interviewed as part of the Rhetoric Student Union's post on students in the rhetoric programs.

Ethan pointed to the *Ryan Cikoja (he/him)* on the right. He said, "I liked how you added your pronouns."

"Yeah, I always thought of it as a way to quietly signal to like-minded people. And 'Ryan' is a unisex name, so it's more relevant that way."

"Oh, okay," he said. "I also like how you put 'I have two middle names' as a fun fact."

"I thought about putting 'I left data science' on there, but I don't think I should be talking about other programs like that in the post."

Ethan nodded before zooming into my face. My dark-brown hair was combed to my right, somewhat like his look but not falling over my face. I only smiled slightly in the picture, with the corners of my mouth curving upwards, as my light grey eyes shifted towards the RSU logo on my right. "What do you like about the picture? It probably isn't just because I said I had two— sorry," I said.

"It's fine," Ethan said, smiling. "I like it because it shows how much you enjoy the minor. I don't think you'd be doing this with data science!"

"Oh yeah. I like it so much that I'd rather keep it than DS, so that's a thing."

"And I think you look great too! I like your expression," Ethan said, holding my hand again. "I'm glad that you could have those sorts of experiences that aren't just you getting burnt out."

"Yeah, you helped me a lot with that," I cupped his chin, thumb landing on his mole, before kissing him on his lips this time. "Being in data science sounds cool, but I think being able to have that picture and say 'I have two middle names' is much cooler than that."

"You always say that the name 'perceptrons' sounds cool but actually isn't," he said. "It reminds me of that."

We both chuckled. "Not when the COMP 314 homework on MLPs took me two *days*!"

"You could put it as a hot take or something one day."

I laughed then nodded. "For today, I just need to get the new COMP 314 homework on transformers out of the way. And, Ethan?"

"Hey!"

"Do you still have the tux and your old glasses with you? I wonder whether you can wear it the way you did in the orchestra picture so I could pretend—"

Ethan gave me a peck on the lips. "Of course, Ryan."

Greyson Campbell

AN ODE TO CIV 6'S STEAM ACHIEVEMENTS

Sid Meier's *Civilization VI* has sold millions of copies and received wide critical acclaim. It has also elevated the Steam achievement to an art form. The game has 320 possible achievements and every single one features a name containing a clever joke, pop culture mention, or historical reference.

I would give my right arm to meet the genius behind these.

There are plenty of music-related names, such as "Purple Reign" (a play on Prince's "Purple Rain" and referencing the purple colour scheme of Dido, the leader capable of unlocking this achievement), "And The Wall Kept Tumbling Down" (lyrics from the song "Pompeii," unlocking by playing as Rome and having a city lose 6+ citizens from one Vesuvius eruption), "Nobody's Business But The Turks" (playing as the Ottomans, capture another player's capital and then rename it, with the name being lyrics from the song "Istanbul (Not Constantinople)"), and "Irish Heartbeat (unlocked by wining a game with the difficulty set to "Chieftain," which is the name of the band that, along with Van Morrison, released the album *Irish Heartbeat* in 1988).

Sometimes the names veer into the art of film, with achievements like "One does not simply walk into Ngauruhoe" (a "One does not simply walk into Mordor" for times where you discover the Ngauruhoe volcano) and "Nobody Expects the Spanish Inquisition" (a famous *Monty Python* quote, unlocked by launching an inquisition as Spain).

They're even occasionally self-referential. Since the game's release, the "Buying Your Blue Jeans and Listening to Your Pop Music" achievement has been awarded for winning a Culture victory. After Mongolia was introduced in the Rise and Fall expansion, "Buying your Deels and Listening to Your Throat Singing" was added for Culture victories achieved specifically as Genghis Khan.

(As an engineering student, I'm also partial to "An Engineer's Dream," unlocked by having a canal, dam, aqueduct, railroad, Golden Gate Bridge, and mountain tunnel all in the same city.)

Other miscellaneous favourites of mine include "Missed That Day in History Class" (clear nuclear contamination with a Roman legion), "Elcano's Revenge" (unlocked by being the first player to circumnavigate the world after Ferdinand Magellan has been recruited by another player, a reference to Juan Sebastián Elcano, the navigator who completed Magellan's planned circumnavigation after his death and is often overlooked by the general public), and "A Man A Plan A Canal Panama" (earned by building the Panama Canal as Teddy Roosevelt and named after a famous palindrome).

I've often chuckled at seeing achievement notifications pop up in my game and I've genuinely learned about history through researching their names. It's such a small detail in a 20+ GB game, but I am forever thankful they took the time to add them.

trolleyproblem22

BRENDA

Hi, nice to meet you, I'm Brenda and I only exist within the bounds of my article (which is looking disappointingly short)! I'd love to talk more, but sadly it looks like my article's writer is a bum as I have only been afforded four measly sentences to express myself.

Oftentimes, you have more control over your circumstances than you think, but I am by the nature of my existence constrained by the whims of my author, who can write me as someone who rebels against my inevitable end by having me write extremely long run-on sentences, but ultimately I can only go against the bounds that were set as long as the writer is having fun writing me—whether that means finding entertainment through continuing to pushing the length of my penultimate sentence further (whether through excessive use of parentheticals (like so), or just plain old punctuation abuse (which is far less interesting than nesting parentheticals deeper and deeper (but it does feel less like cheating))), or, in the best case scenario, through developing enough motivation to forgo the previously established boundary and writing a lengthier article with my character, which has been woefully underdeveloped so far and thus I am not feeling optimistic about the prospects of an expansion to this article that blatantly ignores previously set bounds, or something like a complete re-edit of this article to erase the four-sentence limit from existence so that I can be written about at length free of constraints and I can start again from a blank slate; but even under those conditions I would still not be free of the writer's influence…

What an unfortunate position I've found myself in.

WRITERTHOUGHTS #7

QUESTION: WHAT IS A SPECIAL INTEREST YOU COULD GO ON FOR HOURS ABOUT (AND CAN YOU EXPLAIN IT A BIT)?

With time, all things change. The bright sun that you saw as you walked out of your 3:30–4:20 class has been replaced by ever-increasing dark clouds. The wind only gets more bone-chilling with each and every day. Soon snow shall be arriving as well. The weather, to say the least, makes you want to curl up inside your bed, open up your computer, and fall down a rabbit hole; and what better rabbit hole but one of your own special interests? In honor of this, today's question is: **What is a special interest you could go on for hours about (and can you explain it a bit)?**

AURELIO

Bird. I love birds and I want to work with them for my career :) anyone who goes outside with me WILL learn about birds whether they want to or not!!!

JMHEXAGON

The lore of many, many works of alternative historical fiction. I fucking love alternate history. Also *Risk of Rain 2* lore. Or perhaps *TF2*. Perhaps *Yakuza/LAD*. Perhaps *PAYDAY*. Perh

PLANET B612

my name is planet b612 and i am (almost definitely) autistic. i've had a couple of long-running special interests but i'd say the longest one is vocaloid. i've been into vocaloid since grade 3 and i've been listening ever since — it's been roughly 12 years! i won't explain it since many, many authors have already detailed it better than i ever could (*Please Get it Right* by *beef* in **mathNEWS** 162.3; *Akita Neru Is Not Even A Real Vocaloid — Stop Calling Her The "Yellow One"* by *>:3* in **mathNEWS** 162.2), so instead i'll talk a little about my own personal history. i can confidently say that getting into it so young has permanently fucked up my music taste, i think generally it's an acquired taste and i genuinely prefer the almost robotic nature of the songs to real voices. in the first place, i have really bad auditory processing skills, so not understanding the lyrics (even when in a language i know) has never bothered me, and if anything makes the experience better because it's all just sound to me, but with official meaning! here's some niche(r) recommendations, happy listening!

1. john (artist, produces music also under TOOBOE and made one of the EDs for chainsaw man AND the summer hikaru died 👀👀👀👀)
2. *synchronicity* series by hitoshizuku x yama (the third song is the best one, hitoshizuku x yama is GOATED at making duets)
3. i love you guys so much i'll reveal my nichest song that i like. "the new millennium" by shuujin-P

BEEF

thinking. pondering, theorizing, rationalizing. it's like writerTHOUGHTS

<3

MrBllueSky's language innovations — iykyk[1]

MRBLLUESKY

History, I do not know why but I love history and the way society's have formed, way they have progressed, and how it connects to modern day, and the various issues that we as a society face. A side connection to this is Paradox games, because for some reason my brain loves it when in *Victoria 3*, I get the highest standard of living, get the highest GDP, or destroy the British Empire. Writing this out really makes me realize how likely it is that I am undiagnosed.

DOLLAR STORE PERSON

ngl my depression comes with anhedonia so my interests are very unspecial and nonexistent but i can ramble a decent amount about various mistresses to different european nobles and how they tactfully rose the ranks of society to survive as examples of many women under the strict historical patriarchy. either that or this minecraft youtube series i like but i am NOT explaining that

ANONYMOUS

Astarion from *Baldur's Gate 3*. I feel like a lot of people get his character wrong and it pmo like a character can be an asshole and pitiful at the same time but then people baby him and are like nooo people who romance him are so evil he just wants a friend and like !! He's genuinely, OBJECTIVELY more emotionally mature than, say, Gale, who doesn't realize he was groomed and is lowk childish . And no hate to Gale I love him he's sweet but Astarion is a grown ass adult he's 200+ years old I think he knows what he wants esp when the player gives him time to figure that out. And also people who go all dramatic and say like they'd never like him if his personality stayed the same as Act 1 throughout. Let's be SO for real he's still an asshole at the end he doesn't do anything that doesn't benefit him which, fair. I can fix him tho — I'm kidding. He can make me worse.

FINGERSINSOCKETS

Jon Bois. Sports writer but possibly one of the best storytellers I've ever had the pleasure of coming across

AXON_TERMINAL

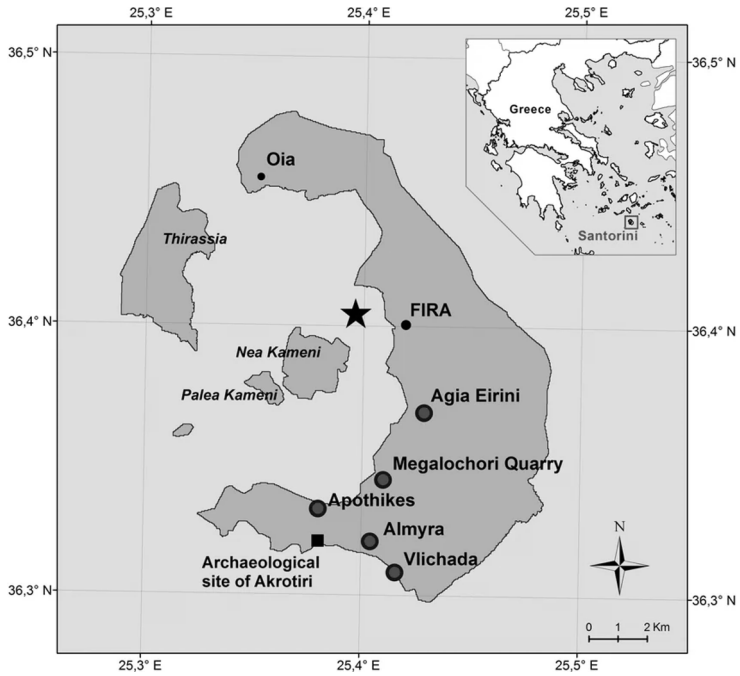
reconstructive memory and schema theory!!!! so basically there's this fairly common misconception that episodic memory works like computer files in that you store away the memory as a file and then can call it back up again (think *Inside Out* (2015)). really, though, as far as researchers and theorists can tell, it's more that you save just the skeleton of the memory and then fill in the blanks when you call it up. a schema is your overall understanding of what a certain concept can be. that's a little abstract, so it's easier to explain with an example: your schema for a classroom probably includes that classrooms have desks, whiteboards/blackboards, and probably a projector screen. so following reconstructive memory theory combined with schema theory, that suggests that if you're calling up a distant memory that occurred in a classroom (especially one you weren't in consistently for a full school year), your brain probably remembers the information more unique to the memory and then fills in the background based on what you expect to be in a classroom. wow this ended up being longer than I meant it to be

writerTHOUGHTS

1. *MrBllueSky*'s response: Shhhhhh don't expose me

N ISLAND FACTS — SANTORINI

Following up on the Aegean sea from last issue, I have a fascinating viewer-requested island for this week! Shockingly I hadn't heard of this island before, despite it being ranked by U.S. News as the world's top island. Shows what I know! This is Santorini:



- A small group of Greek islands in the Southern Aegean Sea (roughly 8 411 km North East of **mathNEWS**)
- The island group is the remains of a volcano caldera. The main island and the smaller Thirassia form the rim and the central Nea Kameni and Palea Kameni are the inner cone
- When you search up "Greece" and see images of blue domed buildings overlooking the ocean, you're almost certainly seeing pictures from Santorini, specifically Oia, in the North
- Humans arrived on the islands in the late Neolithic, but the first "civilization" to settle there was the Minoans, who arrived from Crete around 3000BCE. The main Minoan archaeological site is today called Akrotiri
- Akrotiri peaked between 2000–1600BCE, and was incredibly advanced. They had **hot and cold** running water for the city over 4000 years ago! In 1600 BC however, the Santorini volcano erupted, entirely destroying the town in mere days. This event has been proposed by some as the origins of the Atlantis myth!
- Due the incredible preservation of the site following the eruption, Akrotiri has been likened to a Minoan Pompeii
- After the Minoans the Island was uninhabited for a while, and then was occupied by the Phoenicians, the Dorians, the Ptolemaic Empire, the Romans, Ottomans… really too many cultures to list. At one point it was even Russian!
- Modern day Santorini is still volcanically active. Just last year a swarm of over 200 earthquakes struck the island, causing concerns of an eruption. Luckily nothing so far, though the last major eruption was less than a century ago, in 1950
- The island is very popular with tourists, hosting some 3.5 million every year (compared to the permanent population of just 15 000)

That's all on this island, let me know if you have an island you want me to cover! (fatcullen2@gmail.com)

FATCullen

LAZY

This article is lazy

Just like me

I'm resting my head on the table as I type this

lazy

TAKE ONE

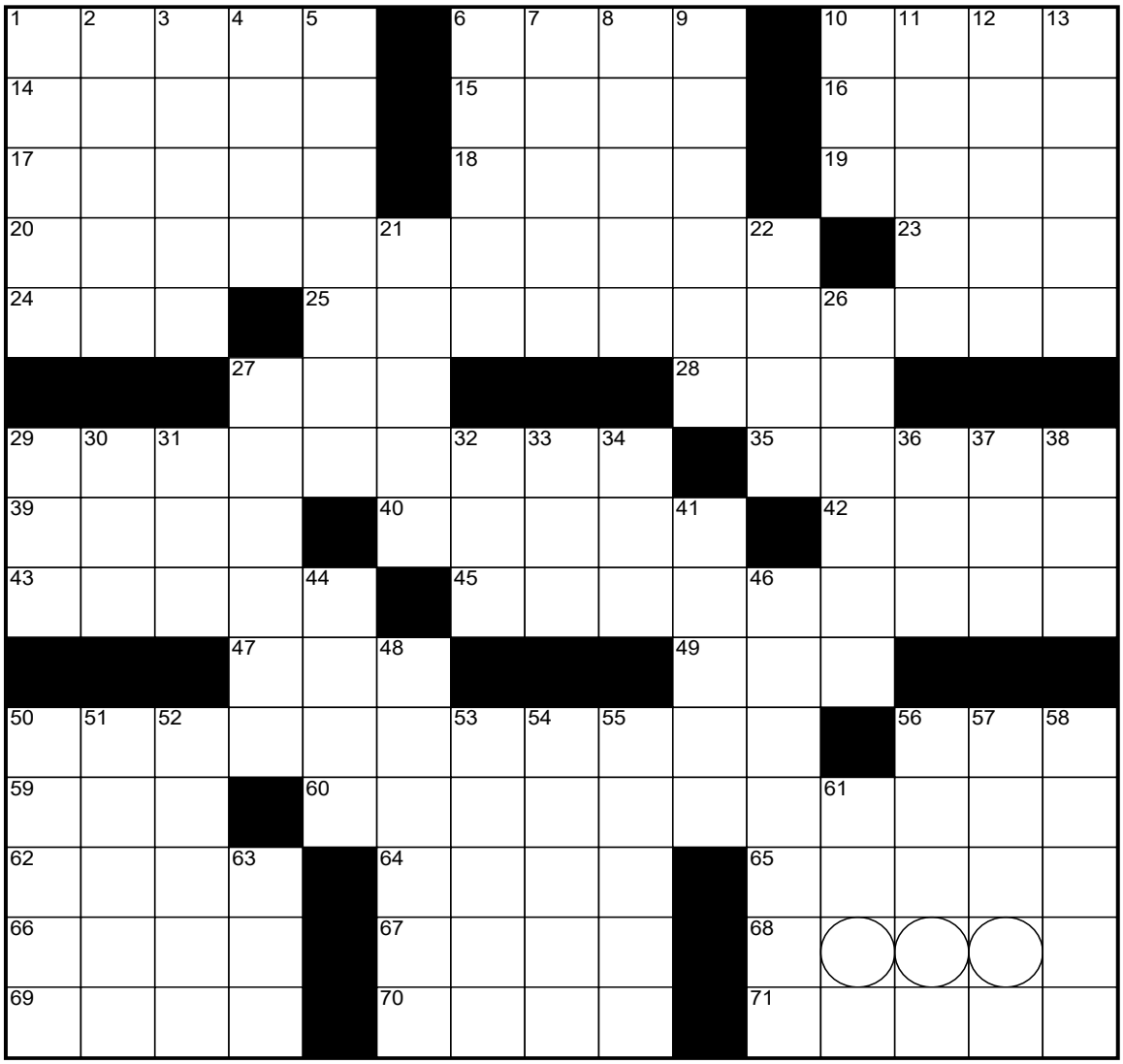
A CROSSWORD BY TINKERTAILOR AND AMIRDADP

ACROSS

1. Five lines for notes?
6. Surrounded by
10. ___ and doe party
14. Misfolded protein
15. "___ Lisa"
16. "I just bombed that quiz!"
17. Inflexible
18. Actions at the WUSA bike auction
19. Gently hit, in baseball
20. Increases your sexual desirability, allegedly
23. Quiet
24. "Chat, are we there ___?"
25. Broken MacBook?
27. Rhythm game!
28. Kinda sorta
29. Took control of
35. Australian pseudo-bear
39. Radio ending?
40. Austrian but not Swiss dough
42. S, A, B, C, D or F?
43. Home to a NASA mission control centre
45. Unlike the furniture in RCH 101
47. Curly, Larry and ___
49. Devoted sister
50. Room on a train, say
56. ___-cities, such as KWC
59. Notable District 11 Tribute
60. Sledge hockey player, perhaps
62. "___ boy!"
64. It's coarse and rough and irritating and it gets everywhere
65. Fill with happiness
66. Plant with fronds
67. CFNY Brampton The ___
68. Unprepared exam taker, perhaps
69. Horse's gait
70. Beginning to end?
71. Begin

DOWN

1. Can come after hair or pepper
2. Low effort trash
3. Okay, slangily
4. To see in FR 101
5. Recommend on LinkedIn
6. Scope of influence
7. Like tasty cake, perhaps
8. Like Princess Cinemas
9. Hated water brand
10. To do in December, April and August
11. Heavy knock
12. Crash a wedding?
13. "I've no idea how to prove this!"
21. Drench
22. Grad House storage?
26. First place in a particle race
27. Entrance to Conestoga Parkway
29. Like UWP or CLV during the summer, say
30. Brief Monopoly ending?
31. Does the NYT crossword
32. Respond to a copyright violation
33. Don't do it on an exam
34. Peter Heller's ___ Stars
36. AOL's messaging service
37. Hawaiian necklace
38. Intel's graphics
41. Oldest Corleone son
44. Less artistic form of opera
46. Eggnog spices
48. Keyboard : delete key :: Pencil : ___
50. Like all good beer
51. A kind of space?
52. Offers a Selection of groceries
53. An alternate path from academics
54. Comics read backwards?
55. Church board member
56. The princess of The Princess and the Frog
57. One who fills out Student Course Perceptions
58. Like krypton or xenon, say
61. You may lose it
63. Unwelcome guest in a residence



An online version of this crossword is available on Crosshare via https://tinyurl.com/take-one-crossword.

Please let us know what you think either via commenting on Crosshare or more anonymously via this Google form: https://tinyurl.com/take-one-form.

The authors would like to thank the referee, *contentED*, for their diligence with this paper, and for their very helpful comments. *Auf wiedersehen?*



RANKING EVERY MAYNARDS CANDY

Maynards makes the best candy in the world without a question. If you bring me Maynards candy, I will love you literally forever. That said, some Maynards candies rank supreme, and as I sit here eating them it's very important I tell you more. From best to worst, Maynards candies rank:

1. Fuzzy Peaches
2. Swedish Berries
3. Swedish Fish (all red)
4. Sour Cherry Blasters
5. Sour Patch Kids
6. Swedish Fish (all colours)
7. Original Gummy Bears
8. Sour Watermelons
9. Wine Gums
10. Sour Patch Kids Tricksters
11. Wine Sours
12. Sour Patch Kids Strawberries
13. Sour Patch Kids Chews
14. Sour Patch Kids eXtreme
15. Swedish Berries (Very Berry)
16. Sour Patch Kids (Tropical)
17. Swedish Berries (Tropical)
18. Swedish Berries (Creme)

If u see this pls send candy I need it <3

BeesKnees

INDIE ANIME REVIEW: PLAYING SISTER

THE STORY OF HARUMAKIGOHAN

My friend recommended me to watch *Playing Sister*,[1] a three-episode indie anime by Gohan Studio, and I gave it a try. It was a suspense/mystery anime about the story of a doppelgänger. In the distant future, Akane and her sister Sui live in a remote mountain village known as Kagami Village. Here lies the local mystery: "Behave yourself, or a Double will come for you." One day Akane receives a call: "The girl at home with you… isn't your sister."

Playing Sister was very good. The story was very metaphoric, and I love the art and music a lot. harumakigohan, a famous Vocaloid music producer who is known for tracks like "Empurple," "Melty Land Nightmare," and "Reunion," is the director and animator of the show. As of today, two episodes has been released. The final episode will likely be up sometime next year.

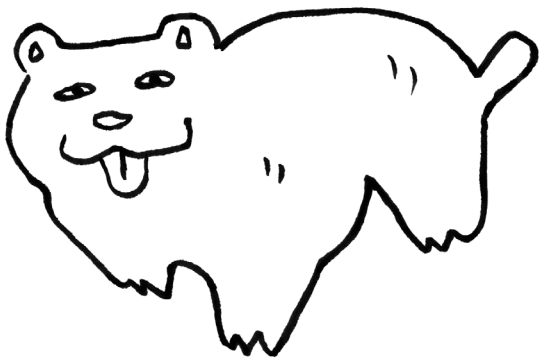
Along with the anime release, harumakigohan also released music videos together with the episodes. "Doppelgänger feat. Hatsune Miku"[2] was the theme song of the first episode. The lyrics corresponds to the story of the first episode and hints at the cliffhanger. What's more, part A and part B of the lyrics narrate in two different perspectives! Definitely give it another listen once you finish episode one. The music and melody feels very denpa. For example, although the tempo is very fast (180 BPM-ish?), the music pauses at certain moments of the song, creating a strong unresolved tension. The acoustic guitar used in the outro contrasts well with the electric guitar used in the chorus. "My Bad"[3] was the theme song of the second episode. We got a new character this time. Mari is a detective from Tokyo, who has just arrived at Kagami Village, investigating the local folklore and her past. Just like "Doppelgänger," we got another perspective of her story in the second part of the music! Both the music and the animation are very gorgeous. "The flower of lingering summer" appears multiple times in the MV, hinting at the upcoming plot.

When looking at the credits of the anime, I felt so excited that I recognized two other musicians that I like! isekaijoucho (ヰ世界情緒)[4] is the voice actor for Sui, who is a famous virtual singer from Kamitsubaki Studio. I have long been a fan of her work and even bought her concert album *Anima* when it was first released in 2022. Her voice acting was so good! She sang a cover of "Doppelgänger" together with Erika Miyazaki, the voice actor of Akane.[5] What a amazing crossover (梦幻联动)!

The other one is Shannon (シャノン),[6] who helped with the animation. Shannon has produced many gorgeous Vocaloid tracks like "Bereavement" and "Solitary Industrial Revolution." Some of Shannon's music also feels very post-apocalyptic, *Daiichi Shouchou Taikei* (第一象徴体系) being the most iconic work in that style. When I first listened to "Doppelgänger," it reminded me of his art and music. I wonder how these people got to know each other and how they started making indie anime together. It was truly inspiring! Will I be able to be part of a group just like Gohan Studio and make something cool like they do? It might be a dream that feels worthy to chase.

eralogos

1. https://youtu.be/0q6uIpgQpGE
2. https://youtu.be/RD-g6a56XKU
3. https://youtu.be/BBCRBlHT_Go
4. https://www.youtube.com/@isekaijoucho
5. https://youtu.be/3IjT_4F-i5o
6. https://www.youtube.com/@shannon_music



EXTREMELY TERSE REVIEWS OF EVERY SINGLE VIDEO GAME I'VE PLAYED

(ACTUALLY, JUST THE ONES I'VE OWNED, OR ELSE THIS WOULD BE WAY TOO LONG. AND IT ALREADY IS.)

***Mario Kart 7* (2011):** Underrated.

***Super Mario 3D Land* (2011):** Even more underrated! It's awesome!

***Mario Tennis Open* (2012):** Not quite underrated. It's alright.

***New Super Mario Bros. 2* (2012):** A few too many coins, maybe.

***AR Games* (2011):** The dragon looked pretty cool.

***Face Raiders* (2011):** The bosses are kind of terrifying.

***Mario Party Island Tour* (2013):** Not the best objectively, but I have fond memories of it.

***Mario Kart DS* (2005):** Possibly the best Rainbow Road.

***Tetris* (1985):** It's tricky to control on DS.

***Minecraft* (2009):** I never managed to beat the Ender Dragon.

***Papa's Burgeria* and numerous other games in the same isomorphism class (???–Present):** Fun up to a point, but eventually their monotony becomes… strangely realistic.

***Geometry Dash* (2013):** Fun fact, my friend said the game would be dead in ten years. That was in 2017. Not so, evidently!

***The Escapists* (2015):** Hugely underrated! The stealth and strategy mechanics are a ton of fun.

***Papers, Please* (2013):** Short, but effective. Great sound design.

***Among Us* (2018):** Was legitimately fun, once. That might have been hampered by overabundance of "sus" memes, though.

***The Stanley Parable* (2013):** Intriguing, though *very* short. And I don't know if I'd venture to call it fun.

***Understand* (2020):** Very intriguing. And it makes you feel like a genius what you finally get it. So basically, it's like math.

***Terraria* (2011):** Absolute cinema.

***Terraria: Calamity Mod* (2016):** Absolute cinema squared.

***Portal* (2007):** A certified hood classic. Though possibly a little nauseating if you aren't used to the trippy look-through-portals stuff.

***Portal 2* (2011):** I don't think I can actually give a review since I haven't finished the game. I got stuck on that one room with the white stuff coming out of the pipe.

***Kindergarten* (2017):** Very comical little game, if a little disturbing.

***Kindergarten 2* (2019):** Not quite as charming as the first, but hardly bad.

***Celeste* (2018):** Tough, but rewarding. And spectacular music!

***Detroit: Become Human* (2018):** Very unique, as a game. And a lot of fun in its mechanics. Great voice acting too. But I still don't think AIs are people.

***South Park: The Stick of Truth* (2014):** A fun time if you're a *South Park* fan (which I am). Though probably not as much otherwise.

***South Park: The Fractured but Whole* (2017):** Possibly the most similar thing to *Fire Emblem* that I've played, combat-wise. Kinda makes me want to try some *Fire Emblem*.

***Hollow Knight* (2017):** Absolutely beautiful, aesthetically and musically. It's pretty hard though, maybe too much for me. I only ever got to 90%.

***Clash Royale* (2015):** Another certified hood classic. I hear it's still active, though I stopped playing around 2020.

***Brawl Stars* (2017):** As a (former) El Primo main, it was good back when there were 18 or 19 brawlers. I don't know what Supercell is smoking these days.

***Clash of Clans* (2012):** Perhaps an even classic-er hood classic? But it's been so long that I barely remember Clash. Was it even that much fun? Just placing troops around bases? Dunno…

***Jetpack Joyride* (2011):** Solid and memorable as far as endless runner games go, but that (admittedly) isn't all that far.

***Geometry Dash Meltdown and Subzero* (2015, 2017):** They were alright, I guess. For all of ten minutes.

Various free-to-play mobile games whose names I no longer recall (circa 2010–2015): They couldn't have been that good if I don't remember their names.

***Angry Birds Epic* (2014):** No joke, maybe the best mobile game I've played after Terraria. I will forever mourn the day it was taken from us (de-listed from the App Store).

***Angry Birds* and its many spinoffs including *Bad Piggies* (circa 2011–2016):** Not bad, at their core, but repetitive before long.

***Little Alchemy* (2010):** Does this qualify as a game? Who knows. It was definitely cool to uncover new stuff in it, though.

***Bouncy Ball* (2012):** Yes, this is the actual name of a real video game. Look it up. It even had a neat little level editor! Fun times.

***Wii Sports Resort* (2009):** Or, perhaps, "Swordfighting, Plane Flying, and some other stuff I guess." (I jest, of course, it's a great game.)

***Skylanders Giants* (2011):** There are other people who played *Skylanders*, right? Right? It's awesome. And this is the best one by far.

***Super Mario Galaxy* (2007):** Simply the best.

***Gold's Gym: Cardio Workout* (2009):** "We have *Wii Fit* at home." (I got this for like ten bucks at a thrift store, though, which isn't a bad deal.)

***Skylanders Trap Team* (2014):** Still *Skylanders*, so still awesome. But its music has nothing on *Giants*.

***And Yet it Moves* (2009):** Very cool concept and art style. But I only ever had the demo.

***Pokémon Rumble* (2009):** This is ultimately the reason I have a Pokémon profile picture (and also the reason I know most of the original 151). It's very goofy, but in a legitimately fun way.

***Nintendo Land* (2012):** The Mysterious Murasame Castle representation in the year of our lord 2012. Enough said.

***Mario Kart 8* (2014):** I don't think this game gets enough credit for how detailed and intricate its race tracks are, gameplay and music aside.

***Super Mario 3D World* (2013):** This was arguably the start of Nintendo's now well-established jazz era.

***Super Smash Bros. for Wii U* (2014):** I loved this game, despite how "slow" it's now regarded as compared to *Ultimate*.

***Super Mario Galaxy 2* (2010):** Doesn't quite have the same magic as the first one, but is still great, especially with the post-game green stars.

***Super Mario Maker* (2015):** Hugely underrated, one of my absolute favourite Wii U titles. But man, I can't believe it's dead now. All my levels… returned to dust from whence they came…

***Skylanders Imaginators* (2016):** This one was just… very meh. A less-than-stellar end to the Skylanders franchise.

***Minecraft Story Mode* (2015):** I… I only remembered this existed when I went to compile this list.

***Pokemon Rumble U* (2013):** Somehow not as fun as the original? And the music isn't as memorable either. They fell off, methinks.

***Mario Party 10* (2015):** Like *Mario Party 9*, but without even the redeeming quality of the charming Wii aesthetic.

***Super Smash Bros. Ultimate* (2018):** Adding Steve may have been a step too far.

***Tetris 99* (2019):** I never got good enough at *Tetris* to be competitive in this.

***Super Mario Maker 2* (2019):** A solid improvement to the first, and still alive! For now. But one day it too will perish…

***Mario Tennis Aces* (2018):** I think this was better than *Open*, and certainly better than its questionable Wii U predecessor. But I also played it for all of like ten minutes.

***Baba is You* (2019):** Probably the single most unique and creative game on this list. But also among the hardest. I never got around to finishing it…

***Super Mario Bros. Wonder* (2023):** A pleasant return to form for this series. And a really hard final level. Like, *Celeste*-hard.

***Super Mario Bros.* (1985):** The physics are janky. Which like, yeah, it's the first one, but still.

***Super Mario Bros. 2* (1988):** Less janky physics, more characters that would go on to be *Mario* mainstays. Certainly an improvement.

***Super Mario Bros. 3* (1988):** This one actually controls like a modern *Mario*, which is more than can be said for the previous two. It's a shame the hammer suit never came back, though.

***Wario's Woods* (1994):** Honestly just a really fun block-puzzle game.

***The Legend of Zelda: A Link to the Past* (1992):** My second-favourite SNES title after *EarthBound*, the dungeon-crawling and explorative gameplay is really satisfying and still holds up today.

***Super Metroid* (1994):** It doesn't get more Metroidvania than this. And fantastic sound design too! You can really tell that the sound programmer was also the composer.

***Super Mario World* (1991):** Overrated, possibly? A classic, sure, but the gameplay isn't mind-blowing or anything.

***Yoshi's Island* (1995):** Considerably funner than *Super Mario World*, in my estimation.

***EarthBound* (1994):** Amazing! Really fun setting and dialogue. I hate the exploding trees though.

N BOND GIRL SUGGESTIONS (IN NO SPECIFIC ORDER)

IN HONOUR OF ROBERT PATTINSON BEING ANNOUNCED AS THE NEXT JAMES BOND

- Kristen Stewart (funniest option imo)
- Viola Davis (not as a love interest, I just know she would knock it out of the park)
- Naomi Ackie (Her and Pattinson were *so* good in *Mickey 17*, them together would be great)
- Olivia Dean
- Olivia Hardy (Wasia Project)
- Havana Rose Liu (not as a love interest)
- Manon from Katseye (I'm only half joking with this pick, also not as a love interest)
- Zendaya
- Lily-Rose Depp
- Jennie from Blackpink (I think she was trying for an acting career in *The Idol*? idk if she has the acting chops for it but if she does she may be a fit for it)
- Maya Hawke (also not in a love interest way)
- Hailee Steinfeld
- Jensen Huang (he has the time now)
- Robert Pattinson in drag
- Adam Sandler in drag (shoutout *Jack and Jill*)
- Nicholas Hoult in drag
- Callum Turner in drag
- Josh O'Connor in drag
- Daniel Craig in drag
- Daniel Radcliffe in drag
- Timothée Chalamet in drag
- Jack Lowden in drag
- Nickolas Galitzine in drag
- Pedro Pascal in drag
- Nathan Fielder *not* in drag
- Jonathan Bailey *not* in drag
- Mickey 18
- Chris Hansen
- Edward Cullen
- Taylor Lautner
- Ryan Gosling (idk I just feel like it would work)
- Ben Affleck's Batman *also* not in drag
- Eggward Cullen
- Tom Holland
- Mads Mikkelsen (PLEASE PLEASE PLEASE PLEASE PLEASE PLEASE PLEASE PLEASE PLEASE)
- James Gunn (he also has the time now)
- the wicker man

floweryyy_

THE CASE AGAINST MULTI-MONITOR SETUPS

I recently purchased a 2-pack 27-inch monitor combo that was on sale. It seemed everyone and their brother had a multi-monitor setup except for me. So I sought to join the in-crowd and got on the bandwagon. I'm not one to be stuck in my ways. I do try novel things. I'm giving it an honest shot. And I will continue to do so but after two months in I'm not convinced.

Multiple screens look cool. You're a master of the universe. Looking productive and in control. Spiderman has multiple screens so why not you? Instead of alt-tabbing you just side glance at windows. You're in the control room. In command.

Except then the neck strain hits. Not just when looking sideways but looking up at these fairly large screens. And all these windows, are they actually helping you or sucking away your productivity? I bought into multiple monitors to help me with my productivity for my most important work. Deep focus. Yet the setup contributes to information overload.

Instead of constantly choosing where to put windows and moving them, I settled onto a default mode of putting certain classes of windows in each screen. The curse of choice leads to decision fatigue so this was easier. But still I can't help but be distracted by all these varying apps all around me all at once.

Even though I have large horizontal screens I ended up dividing them in half and putting windows in each half. This is what I've always done on my laptop. It helps with productivity.

I also can't shake the feeling that multiple monitors are suboptimal in that when you're mobile, on the move, you have your laptop screen, which is always with you and your default, basically. Habitually changing working modes, from desktop to laptop and vice versa, makes for a cluttered experience. All the wires you have to plug in and out are a hassle. Switching from one mode to the other feels unnerving. Makes it hard to really get used to either one.

Do you have such a setup, or are you looking to get one? What do you think; are you convinced?

Zuck



PLEASE SHUT UP, SUPERGIRL (2026) WAS FINE

HOW DOES THIS KEEP HAPPENING???

During the lead-up to July 31st I was unfathomably hyped up for the release of *Supergirl* (2026). I had watched *Supergirl's Cousin* (2025) in theaters and really enjoyed it; one of my favorite parts had been Milly Alcock's portrayal of Supergirl. As I counted down the days to release, horrible horrible news began to reach me… the movie was dogshit, a complete flop and barely worth the cameras it was recorded on.

This news was disheartening to me. I had already made plans to see it on release with my friends and was not slightly dreading the prospect of being stuck watching a shitty movie. Thankfully a combination of pride-celebration-related ~~hangovers~~ exhaustion and a pathetic group of vagrants in need of a drive caused me to miss out on watching the film, saving me from mediocre movie purgatory.

Fast forward to last Friday: I've completed my work for the week, played all the video games I can play and watched all the YouTube I can watch. So, I revisit *Supergirl* (2026)… lo and behold the movie is actually… a perfectly normal superhero movie.

I was quite frankly shocked at its normalcy. I obviously had some complaints: Lobo was a nuisance the whole time and the music was a little odd but asides from that it was largely fine. This was a movie of very comparable quality to any of the mid-range Marvel movies and I certainly enjoyed it more than the Snyderverse movies. Despite this I had heard **NOTHING** good about this movie, not one positive review. You would think that this movie was actively killing people mid-movie with how bad its PR was.

That got me thinking, why did this movie get such bad PR when all it did was be slightly mid? Well dear reader, because women. You see, *Supergirl* (2026) didn't just have to be a "good" movie, it had to singlehandedly claw itself out of 42 years of badly performing (or just bad) female-led superhero movies.

That's right, this is by no means an isolated incident. Instead, the history of female superheroes is bookended by two *Supergirl* flops in 1984 and 2026 respectively. From the day that the original *Supergirl* debuted to $14.3M on a budget of $35M, times have been dark. In the entire history of Superheroes, filmmaking and humanity in general, only six have an audience Rotten Tomato score of above 60% and all of these movies were released after 2017 (despite this, most of these movies break even, so at least they are financially viable, just not very good).

This means that any new superhero movie positing to have a female lead is facing a legacy of garbage and shouldering a responsibility to prove the cinematic worth of women in superheroing for the next 40 years or so. As such, it's not enough to come out with an alright movie like *Supergirl* (2026), only smash successes like *Black Panther 2* or *Wonder Woman: Glory to the IDF*[1] are acceptable, even when male-led superhero movies have preformed similarly with little comment on their destruction of an entire gender's worth of protagonists.

TL;DR: Supergirl was fine actually? DC make a GOOD Wonder Woman movie. PLEASE. Two of the big three got good movies. PLEASE. PLEASE. PLEASE

Lyssa V33

1. Beyond any political grievances I have with Gal Godot, she is a generally bad actress AND *Wonder Woman* (2017) was a mess.

GIRL WITH SOCIAL ANXIETY GETS A JOB

LYCHEE'S RECENT HYPERFIXATIONS (AND RANDOM LIFE STUFF IG)

honestly, sometimes i forget that i have been diagnosed with social anxiety! it's interesting isn't it? you'd think that i wouldn't forget, but i do…

you may be wondering, how does one forget? the answer is simple. i remain in my own little bubble almost all the time. all of my friends from high school went to this university alongside me… in fact, they're my roommates too.

now, what reminded me of my social anxiety was that i got a part-time job! i'm employed! woo!!! that's all fun and dandy, but now that i'm employed, i'm forced to face my fears head on. my job is simple. i cold-call students and ask whether or not they want to sign up for an appointment with the dentist's office. simple, right?

WRONG. LOUD INCORRECT BUZZER. i wasn't thinking much at the time when i applied and went to the interview! however now that i've been accepted and have now been added to the team, it hit me real hard that i have to actually go up to strangers and talk to them…… it's unfortunate, really. you might be wondering why i don't find another position…

it's because as much as i'm scared of people, i realize that i need work experience. i also realize that if i keep avoiding my fears, i will probably not get anywhere…

anyways, wish me the best of luck. i'm sorry if you become a victim to my attempts at… doing my job.

lychee



profQUOTES

AMATH 271: FRANCIS POULIN

❝ I didn't really understand the physics content that well, but because I could compute partial derivatives I did pretty okay in the course. It seems to be a pretty fundamental part of the field.

AMATH 333: FRANCIS POULIN

❝ I did warn you all in lecture one, that you can live a very happy life never learning calculus on manifolds, yet you're all here.

AMATH 353: MATTHEW SCOTT

❝ In this case, we assume that, as we head from low density traffic to high density traffic, we decrease our velocity, because you would be a maniac if you speed up into a traffic jam.

AMATH 462: BARBARA ZEMSKOVA

❝ So what can we do about this, aside from hopelessly cry?

❝ This isn't a "let's all get depressed" class, despite my "everything is uncertain" claims.

AMATH 473: GRAEME SMITH

❝ Measurements don't really exist; they're just a convenient delusion.

AVIA 210: GULNAZ BÜLBÜL

❝ The risk will be zero if you are all dead.

BIOL 240: JOSH NEUFELD

❝ I'm putting my foot up on the projector, I don't care. It's very interesting.

❝ It's really remarkable how much you can accomplish when you don't have to worry about having a girlfriend.

❝ I am a professional streaker, and today I want to show you how it's done.

❝ *[While dressed as Walter White]* My wife says this is just what I normally look like.

❝ *[After Remembrance Day moment of silence]* I was hoping we wouldn't be talking about flesh-eating disease at this moment.

BIOL 251: REBECCA ROONEY

❝ You can sort of torture snails however much you want.

❝ Once you get caught in the web, you're just cooked.

CO 442: LUKE POSTLE

❝ The average of the midterm was low to mid 30s, with the highest grade being 42… out of 50. That's still not good though.

CO 485: SAM JACQUES

❝ Who votes "for all N"? Who votes "for random N?" *[Only 2-3 people vote in the room]* Well, just for engagement.

❝ Maybe a throws an error, and says, hey, I'm part of the simulation, I want to leave the Matrix.

CS 137: VICTORIA SAKHNINI

❝ What happens when this is `const` and this is `const`? I call it Catholic marriage. No divorce, no change, they are stuck forever.

❝ I'm not here to teach you how to hack systems, I'm sure you can do that on your own.

CS 137: BRANDON NGYUEN

❝ I am not here because I know more about C than you; I'm here because I have more experience getting touched by C.

CS 145: TROY VASIGA

❝ Feel free to go to Seattle, Washington, and cause Microsoft to no longer be on the face of the earth. I would support that.

❝ I can't do this with a quantum computer. *[Puts phone in pocket]* Quantum computers like to be at absolute zero. My ass does not.

❝ One is one more than one.

CS 246E: BRAD LUSHMAN

❝ By show of hands, how many of you have done something in your life that your parents don't know about? *[Everybody raises their hand]* Look around. What's the lesson here? Never trust your children.

CS 349: ADRIAN REETZ

❝ The average person does not exist.

❝ We don't care about elderly people with dementia.

❝ How can I interact with my device while still holding my child?

EARTH 123: ANDREA BROOKFIELD

❝ Sixty-six-point-six-six-six-six-six-six-six-seven — eugh.

EARTH 223: RANDY STOTLER

❝ What's my office number? 🤔

HLTH 290: JOHN MIELKE

❝ My daughter is going through a phase, where she is heavily interested in Japanese anime, in particular *Jujutsu Kaisen*, or *JJK* as she calls it.

❝ The king of English at the time was invested in the sort of activity that many English kings and queens over the years have been invested in; that is, warring with the French.

❝ Oh and don't worry, they did not do this with undergraduate students, they did this with laboratory rodents. Just to quell some concern.

MATH 117: SACHIN KOTECHA

❝ There's something spicy about the $\cos$, and that is that it doesn't say x inside. It says $2x$!

MATH 135: MICHAEL RUBENSTEIN

❝ *[Blows whistle]* Whispering is loud in the front row. It's okay, you guys can clarify among yourselves. I just wanted your attention. I just want attention.

MATH 235: JERRY WANG

❝ *[Student: Is Legendre polynomials testable content?]* Ain't nobody got time for dat.

MATH 237: ZACK CRAMER

❝ You've got nothing to lose by voting, except my respect for you. Just kidding, you lost that a while ago.

MATH 245: JERRY WANG

❝ Why do we care about commuting normal operators? Because they show up in real life: when you prove the modularity of elliptic curves.

❝ *[To a student who came late]* You missed the proof of Fermat's Last Theorem.

❝ I didn't realize that MATH 237 wasn't a prerequisite for MATH 245.

❝ *[Student: Are you ahead of all the other 235 classes?]* No. They're all behind me.

MATH 247: SPIRO KARIGIANNIS

❝ What symbol do we use here? Circle with a dot. By circle with a dot…

MATH 580 (MCGILL): NIKKI CAMRYN

❝ Where is the eraser? You have to be joking… *[…]* Okay, commercial break! *[Steals eraser from another lecture hall]* All this is doing is making another person mad.

PHYS 256: FIL SIMOVIC

❝ If you've ever seen an oil slick or soap… hopefully people use soap.

PHYS 474: MICHAEL BALOGH

❝ So now we have an accretion disk of planets and gas and stars and kittens and stuff all orbiting the black hole.

PMATH 367: TY GHASWALA

❝ When you have a $\mathbb{RP}^2$ in a connected sum, it just spreads like a virus!

❝ You can rename the sides whatever you want as long as you rename all of them. You can even rename them… *[student's name]*.

❝ It is true, in fact it's a little more true than I would like.

❝ If you're in the surface, if you're a real projective Pac-Man, you don't know there's a point here.

❝ Good job, everyone, four down and one to go, and then the final. By which point, you'll have forgotten everything and have to learn it again.

❝ Mathematics is not vital to our existence.

❝ It doesn't matter if you're not getting enough sleep, if you're not getting enough sleep your brain doesn't care about the fundamental group!

❝ *[Talking about groupoids]* As my friend said, "If it ends in -oid, it's best to avoid."

❝ You can't talk about functors if you haven't seen the fundamental group! Tell your friends.

❝ You have now become grown-ups, congratulations! You may now use functors responsibly.

❝ If someone asks you about categories, don't be that guy who says "it's *[verbose category theory jargon]*" … *[Sticks up middle finger]*

PMATH 453: NICO SPRONK

❝ I guess overcooked chicken is better than undercooked chicken, isn't it?

STAT 202: RILEY METZGER

❝ Every single person in my population now must vape a million times per day.

❝ So what I'm going to do is, I'm going to make my life miserable.

❝ That's eight degrees of freedom, although you guys only need to get one degree for freedom.

❝ Let's talk about peeing in a pool.

STAT 231: CHRISTIAN BOUDREAU

❝ I haven't looked at a table in real life for decades.

❝ This looks painful… This is painful… If we asked you to do this by hand, it would be painful…

❝ Doctors love knowing I'm a statistician. When I sprained my ankle and they were wrapping it up, they said "You know, if you sprain your ankle, the chance of spraining it again doubles." And I said "Great! Great!"

❝ I always make a point to talk about girls' medical stuff at lunch time

STAT 333: STEVE DREKIC

❝ Last time I checked, $\frac{3}{8}$ is less than 1.

DOWN WITH THE CROSS PRODUCT

Linear algebra is the most useful and powerful field of math. And like all fields of math, it has its deadweight concepts and definitions that have stuck around because nobody is brave enough to change them. Number theory has its LCM, trigonometry has its cosecant, and linear algebra is stuck with the cross product.

The cross product is an operation on two 3-dimensional vectors. It operates according to the "simple" and "intuitive" formula $A \times B = (A_2B_3 - A_3B_2, A_3B_1 - A_1B_3, A_1B_2 - A_2B_1)$. A cross product enthusiast will say that it's immediately obvious what this does, but in case the reader is a normal person, this will generate a third vector perpendicular to the original vectors A and B (probably, zero might be involved), with a magnitude related in various ways to their lengths. Can you see how boring, how abstract this is? Does knowing about the cross product provide any joy to your life? I didn't think so.

Compare this to its (far superior) cousin, the dot product. The dot product takes two vectors and outputs the length of the projection of either vector onto the other. It instantly tells you how similar two vectors are—it's zero if they're perpendicular, positive if they point in the same direction, and negative otherwise. If you take the dot product of a vector with itself, it gives the length of the vector[2] (whereas the cross product gives you a useless zero). And it has a super simple formula: $A \cdot B = A_1B_1 + A_2B_2 + \ldots$ Note that this works in any number of dimensions, not just the three the cross product demands! You can simplify things in 2D, jump to 77D, and the dot product will be by your side the whole way. Why do we have a cross product when the dot product is just better?

Now, cross product enthusiasts might jump in here, defending its "extreme practical utility" and "numerous applications." These are plain lies. Compared to the dot product, the cross product is a pain to calculate and use; it requires memorizing an obscure formula and doing a bunch of calculation to get an answer that gives zero insight. And in terms of applications, it has exactly two—calculating torques and magnetic fields. Both of these are niche physics concepts that should be of no concern to an ordinary math student. Compare this to the dot product, which has hundreds of applications all across pure maths, such as changes of bases, inner product spaces, and neural networks. It even has uses left over for the physicists, like normalization of wavefunctions and calculation of work.

It's plain to see that the cross product is overcomplicated, overshadowed, and underused. It should be removed from the mathematical lexicon as soon as possible. If we really need another vector operator besides the dot product, I propose the free pizza operator—it takes in two vectors, and points in the direction of the nearest free pizza. While this has no mathematical interest, it at least provides pizza, which is more than the cross product can say for itself. Today is the day to switch.

tau over pi

2. squared

HIP NEW THING TO DO IN WATERLOO

The Waterloo Potters' Workshop is having their Fall Sale this weekend (Nov 20–22) at RIM Park. I am not at all associated with them but I think it's cool and you should go. Maybe get a holiday gift for your mom. That's what I've done for the past three years and every time it's been a success. Everyone loves a good artsy plate, I promise.

normalparameters

INTERESTING TIDBITS FROM JENSEN HUANG'S WIKIPEDIA PAGE

I GOT DISTRACTED BY STUDYING FOR CS 251 (REAL) (NOT CLICKBAIT)

- why does he look so sad and concerned in that cover photo? his eyes are like bambi after his mom died
- … nvidia was launched from a denny's???
- his early life is written like a hero's training phase before their major battle and success. like they go into his long path to learning english,[1] how his parents gave their all and sold all their possessions to get him an academy that wasn't as prestigious as thought, a trade with his roommate that taught him bench press skills, his time spent cleaning toilets, etc., and it feels like it's all trying to make me unsuccessfully root for him. and i guess it's kinda cool and like good for him but also i do not need to know how he played *super star trek*. good on him for excelling in table tennis though
- i cannot imagine 14-year-old him on *sports illustrated*. like i guess this makes sense given last tidbit but i still don't expect children on my sports magazine covers
- again they spend so much time on his childhood only to be like "yeah he went to university. got a degree or two or something"
- yeah naming your company after the latin word for envy, that's not an evil corporation thing to do
- wow how inspiring, your ex-project members realized how good you are at reconciling their differences and managing and they put you as ceo of your startup :) oh wow
- love the recency bias in the president and ceo subsection! definitely not interested in the earlier nvidia days before zuck called him the tech taylor swift!
- omg motivational speaker with no watch over here telling us now is the most important time, how ticking true
- "jensanity."
- always love when they have to clarify when two people with the same last name are not related (this is real genuine statement i think it is funny)
- what's with ceos having affairs with subordinates??? it's not hot and so risky i will never get it. i could write a whole article about it because this sort of sex scandal is so unavoidable, just don't fuck people that work for you!!! it's not that hard!!![2]
- the scandal part is well written overall, concise and generally neutral
- missing the part where his wife divorces him… where is that part lori?
- it is very funny that his cousin is ceo of amd, runs in the family. guess she'll have an affair with a potential spy next!
- tattoo of abstract nvidia logo is cool i guess but god you think you'd know the idea of permanence of your actions
- not the leather jacket being sold for almost $1M! you could buy some property with that!
- oh and yeah they donate things to seem somewhat charitable yeah yeah we're done **immediately clicks on related article that got me here**[3]

Dollar Store Person

1. I do want to add that I know it is extremely difficult to learn English; I have seen this first-hand from my immigrant parents. However, I hate how this is so explained for this man in power when other immigrants are not given the same benefit of the doubt and are often criticized for their understanding of the language. Perhaps this is just me being mad at privileged men getting privilege and being written like a victor because capitalism sees him like a victor.
2. well i guess some things were hard
3. what is life if not going on a wikipedia rabbit hole searching for knowledge

MY BIRTHDAY WISHLIST

BY SMALLMOUTHBASSHATER

dear gentle reader,
what I want for my birthday is:

- world peace
- birks
- wallet (the elastic band isn't enough anymore)
- LEGO Star Wars™ #75457 Executor Super Star Destroyer™ $1,099.99 CAD Available Now
- lifetime coke zero supply
- academic validation
- proof that P=NP
- my own personal kitchen with all the trinkets and gadgets
- *dune part 3* tickets
- a nice steak
- the full *lord of the rings* book collection and extended dvds with 12 hours of extra footage
- LEGO Art #75467 A New Hope Movie Poster $399.99 CAD Coming soon on January 4, 2027
- to make my family proud
- the death of all smallmouth bass

gifts can be sent to me via carrier pigeon to your mom's house.

sincerely,

smallmouthbasshater

SI PT. 2

Pain shoots through his his arm as the syringe injects spreading cold. It crawls up his neck, and upon reaching his head, the world brightens, sharpens, and the pain fades away. His mind immediately begins racing. He thinks ahead, considering his situation.

"It won't work. This is wrong. They won't let me out. I'm trapped."

His eyes dart around the room. He looks down at his restraints. Acting calm, he smiles at the grad student and waits for the operator to release his restraints. Springing to motion, he throws the empty syringe at the operator. He hears its point make contact as he leaps onto the grad student. His nails shred their face, ripping open their blue medical attire. Blood, hair, and cloth are thrown in all directions. Suddenly, the sound of the door slamming shut cuts through the room's screaming. Vents in the ceiling open, exhaling thick white gas. His lungs are burning with exertion and force him to breath it in.

"Urgent. Think. Remember. How did I get here?"

He never agreed to this. He was captured. Taken from his family. They took him from the van to a locked room. They held him there for several days. He remembers the grad student. They were always nice, called him by his name, and made him feel less afraid. Maybe he can change their mind.

The moment they step into the room he begins wailing. He pleads for them to release him. He pleads for his life. Through the tears, he sees their face cool, from hope, to duty, to a frozen mask. A quick motion of their hand indicates for a loop to be put around his neck, and they walk ahead as he's tugged out of the room.

He leaves notes in the lunchroom; small and stuck underneath the tables to avoid discovery. He makes contact with several other subjects released at different times. Most of them think the idea of escape is silly, and don't want to be involved. One reports the forming of a plan to the facility, and the next time Michael leaves a note he's caught and thrown into solitary.

"More. What happened while I was held? Robbie."

When Michael was brought in, Robbie had already received his injection. He took an interest in all the new subjects, but spent the most time with Michael. Michael liked music, and Robbie was excited to have someone to teach during his free time.

He remembers the gifts. Robbie saw promise in him, and brought a small gift each day after. First was a folded piece of paper which he couldn't read. Second was a scrap of rubbery black cloth. Last was a twig with a smooth green leaf on it. He couldn't carry them along, so he cherished them in his mind.

"Robbie is freer than I would ever be. They trust him; why? Is he less dangerous? Less intelligent?"

Click. The door to the operating room unlocks.

He finds Robbie in the lunchroom. Robbie meets his plan with a sigh. He's tired. Slow. Sick. Robbie responds by humming a tune expressing Michael's hope, his own resignation, and of their inevitable defeat. Michael, undaunted, needs a way to save himself and his friend. He pleads Robbie for more information. Acquiescing, Robbie quietly sings of the halls beyond the lunchroom, of a window without any reinforcements, its short drop onto a small attached building, the wooden fence beyond it, and of trees.

The curious face of the grad student steps into view and looks past him. A cold metal stethoscope presses against his hairy chest.

Michael swipes a keycard and escapes the lunchroom with Robbie carried under his strong arm, his desk lamp swinging precariously around his neck. Setting Robbie down momentarily, he smashes the window with the lamp, instantly setting off an alarm. Wedging the cord into a nearby door lets them climb down a metre to lessen the fall. Robbie screams alarm as two people in thick black suits rush onto the lawn below them. More will surely follow. In a split-second decision, Robbie leaps out from Michael's embrace to the soft grass below.

The room is too bright, the lights burn down on him.
The room is too hot, sweat drips down his skin.

Robbie trills of escape, and Michael considers the distraction. Even if he makes it past the fence there's no guarantee how much further he'd get, or whether he'd fit in when he got there. So, he jumps towards the suits instead of the fence. He howls as his nails tear into the exposed face of the guard approaching Robbie, but the crackling baton of the other stops him as it slams into his lower back.

He begins to shake. "There must be a way out. Where's the solution?"

A mask is pulled over his face. The air is cool, sweet. It calms him.

He snaps back to the present as the world around him cracks open. Everything is fighting. Evil. He bites, gnashing at the demons flying through the dark rift in the air. Their processors

My brain, it's just... gone.

PROF. MARK GIESBRECHT

overheat and burst into flame. Angels of culture, artworks, vulnerable emotions: all corrupted. Their ash collects on the ground, black carbon amalgamating into a pulsating mass on all sides. The grad student doesn't notice it pooling around their feet, running up their ankles and disappearing beneath their blue scrubs. Its thick veins throb with countless stolen souls. They scream of news, recipes, open source code, and opinions nobody asked for. A face forms with a sinister laugh. There's no breath left to protest as it touches his face. He feels the bland grey conglomerate, with a metallic glimmer and soft warmth but devoid of any joy or true invention. It splashes into his eyes, seeps into his ears, and pulls at his thoughts.

Michael is gone.

blather

N REASONS I WOULD BE A GOOD SERVICE DOG

- I develop deep bonds quickly and am fiercely loyal
- once I've been trained for something, I carry it out well
- when faced with an emergency I have been prepared to expect, I can take charge in a calm but directed manner, and I'm good at identifying the immediate priorities
- I respond well to clear, direct commands
- once I know someone well, I can usually identify their emotional/behavioural cues and tells fairly well and learn how to positively respond to them
- I like going on walks with people
- I am very food-motivated, which is useful for training
- when given leave to do so, I am perfectly happy to chill on the floor waiting for someone to complete their tasks beside me
- while I am often not great at giving directions, I'm great at leading people to places I've been to before
- I become very happy when I feel useful

axon_terminal

N REASONS I WOULD NOT BE A GOOD SERVICE DOG

- I would definitely be a herding dog (part Aussie shepherd for sure) and apparently herding dogs are usually not recommended for service dogs (the internet is split on this one, though)
- I am easily distracted and have difficulty staying on task (note: just after typing this point, I noticed that my laptop was on 6% and then started doing the Cornell Blird Game. my laptop died.)
- my ability to adapt to routines changing is hit-or-miss
- I get overstimulated in very loud or otherwise overwhelming environments
- I take a long time to recover from burnout
- I am very tired most of the time
- I have a terrible sense of smell
- I bite out of affection

axon_terminal

WHAT IS YOUR FAVOURITE POKEMON?

- Mimikyu x2
- Charizard
- Morelull
- Gengar
- Incineroar x2
- Ditto x2
- Bidoof
- Vaporeon
- Groudon
- Porygon2
- Arbok
- Eevee x3
- Starly
- Blaziken
- Pikachu (that's the only one I know)
- Sylveon
- Magneton
- Jirachi
- Palkia
- Snom
- Mew
- Sandslash
- Reshiram
- Fenniken
- Snivy
- Wailmer
- Snorlax
- Toxapex
- Squirtle

mathgeek

POWERSCALING DISAMBIGUATION PAGES

These are the ten most common names in America.[1]

1. James Smith
2. David Smith
3. Robert Smith
4. John Smith
5. Maria Garcia
6. Michael Smith
7. James Johnson
8. David Johnson
9. Maria Rodriguez
10. Mary Smith

Let's take every single person with those names, and merge them together into one person with that name. That person will have all the abilities and powers of every person merged into them. But how do we know the powers and abilities of everyone with a certain name? Thankfully, we have Wikipedia disambiguation pages.[2]

Now, these ten people must fight to the death in a *Hunger Games*-esque arena. Who will win?

For convenience, let's call the merger of every single person with a similar name a "merged name person." Firstly, we have to consider that Wikipedia only takes into account notable people, and that many of the people with a Wikipedia page are deceased. We can sidestep this by assuming that the skillset of each merged name person without a Wikipedia page adds nothing overall, and let dead people contribute. So while this does become more of a merged Wikipedia disambiguation page competition, unfortunately it's the best metric available.

Wikipedia also lists people by profession, and many of these we can rule out as obviously useless for a fight. These include TV stars, artists, politicians, teachers, professors, and businessmen and businesswomen. We will take each person at the peak of their career, so *Mary Smith (supercentenarian)* is probably useless, but *Robert Smith (basketball player)* would still be athletically fit and good at basketball. What we also assume as useful would be any individually "spiky" skills (such as proficiency with archery, for example) that could give a contestant an advantage over another. Pretty much everyone is a engineer, computer scientist, mathematician, is proficient in all of the sciences and other academic fields, has high body strength, and would be able to forage and administer first aid to themselves, but that's not important, because they even each other out.

Much like in the Hunger Games when they assigned each tribute a proficiency score between 1 and 12, I will assign each merged name person a score, because simulating the actual games would require a second article in the next issue.[3]

James Smith has all of the abilities of a U.S. Army general, Space Force general. He is also a pro middle-distance runner, an Olympic boxer and shooter, and has the bulk of a football player. He is also proficient with horses. We will assume James Smith is an overall well-rounded player that prefers to use a gun, with a score of 9.

David Smith is a hacker, and a virologist. He has strengths in jumping and hammer throwing, and a hammer is probably his weapon of choice, although he can also shoot and drive a racecar. He's also an Air Force general and a murderer, so he has experience and a score of 8.

Robert Smith is merely a colonel, and while he is still very strong, he isn't as strong as the previous two contenders. He is good with the javelin (his weapon of choice), wrestling, and sprinting, and is also a mass murderer. He is a multibillionaire that can basically get whatever he wants from sponsors and drive the prices up (in comparison, many of the others are only multimillionaires). He earns a score of 6.

John Smith is a British general that is good at rowing. There are a lot of people named John Smith, but many of them somehow lack the relevant skills for a battle to the death in an arena. Many of these people are also on the older side, so they may not know information that is up-to-date or relevant on modern technology. For this reason he gets a score of 2. He probably uses something generic or something.

Maria Garcia does not have very many people to gain skills and abilities from, but she is a good fencer, so she probably uses a sword. One thing she has that no one else does yet is that she is a chef, so she can probably keep herself fed much better than everyone else previously. She gets a score of 5.

Michael Smith is also a murderer, and he is uniquely proficient at darts, but severely lacks military experience compared to everyone else so far. I believe he is ripe for the slaughter so he gets a score of 1.

James Johnson is a general, but has no specific weapon proficiencies. He also has not much going for him and gets a score of 2, although he is a religious atheist.

David Johnson has no military experience, but he has more social chops than you think. Being a contestant on *Survivor*, he not only has survivalist abilities but the know-how to "stay on the island," so to speak. While it is 100% an extreme uphill battle for him, with him also lacking proficiency, I believe he has a main character underdog energy to him that earns him a score of 3.

Maria Rodriguez is the most proficient swimmer in this group. Arguably she should be able to drown people because most of the other contestants are built like football players; they have high bulk and low body fat, but that becomes an issue in water when you get weighed down much more easily. Depending on the arena, she has a greater chance than you might think, getting a score of 6.

Mary Smith has no professional sports experience, which puts her at a severe disadvantage, or so you'd think. But

arguably looking like such a non-threat makes someone a valuable ally to keep to the final two, because then you have a guaranteed win. She could take advantage of this by biding her time and poisoning someone at the final 2. Unfortunately, she still gets a score of 1.

Ultimately, I think that Wikipedia disambiguation pages are missing a lot of people that could help out more. My call to action: if you have a skill, rename yourself to Michael Smith (or whoever you're rooting for) and get a Wikipedia page to help him out.

writing123

1. https://kvia.com/lifestyle/stacker-lifestyle/2025/11/08/10-most-common-full-names-in-america-and-their-effect-on-online-persona/
2. We can also assume that places or other objects/concepts with a similar name can be used as aids by said person, and that fictional characters do not count.
3. Influence what happens at https://writing123.straw.page/ (if I get ten likes I will write a part 2).

XxX

While shipping is an age-old tradition of any fandom, it's quite easy to look at a popular couple, whose entire relationship spans many chapters of the original work and its countless fanworks, and understand why fans like mashing them together. There's no shame in that, after all, these pairings are popular for a reason, whether they wear well-trodden tropes, have just the right level of angst, or are just solidly written in general. However, beneath, there is a different joy in partaking in niche and unexpected ships, commonly referred to as rarepairs.

A part of the fun is figuring out the "evidence" for the ship itself. Sometimes, the characters have a few minor, intimate, charged moments together, making it somewhat obvious to those who go looking. Other times, the narrative parallels or contrasting temperaments are the major convincing factor. Some of my favourites are hallucinated from patterns in promotional material, from connecting the ends of long yearning chains, or just straight up "it would be really funny."

The other part is being the number one champion of a pairing no one else really cares about. Some fans take it upon themselves to make it their purpose to spread their ship built off of a few canon lines and piles of hopes and dreams. They follow in the footsteps of #1 niche character enjoyers who have drawn their fave for 600 days in a row, sharing in a similar devotion and passion. From this spark, maybe the ship catches on a little, or it just fizzles out, no one else sharing the same vision. That is just the nature of the rarepair, being founded upon one's delusion of coincidence and happenstance.

N WAYS TO PREPARE FOR CHRISTMAS

IT'S TIMEEEEEEEEEEEEE

For me, Christmas starts after Remembrance Day. So I'm starting to get the holiday spirit, and here are *n* ways you can prepare for Christmas as well:

1. **Christmas Music:** this is Mariah Carey's time to shine
2. Make a list
3. Check it twice
4. Find out who's naughty or nice
5. 'cuz
6. **Santa Claus Parade:** Santa Claus is comin' to town
7. **Sparkles:** explore St. Jacobs at night!
8. **Bake Cookies:** now im hungry thinking of warm cookies fresh out of the oven
9. **Christmas Movies:** personal favourite: *Frosty the Snowman*
10. **Have a Hot Drink:** Starbucks and Tim's on campus already have their Christmas menu out! Try everything on there!
11. **Make a Snow Angel:** once it snows
12. **Eat some Candy Canes:** hopefully you like peppermint otherwise you can usually find some cherry ones
13. **Wear Christmas PJs:** Old Navy pjs COOK around Christmas time
14. **See Christmas Lights:** walk around Waterloo and see all the wonderful Christmas lights
15. **Read a Christmas Book:** Indigo has a bunch on sale rn! Just bought one this weekend
16. **Buy an Advent Calendar:** personal strategy: buy one on sale on December 2nd
17. **Make a Gingerbread House:** grab a group of friends and make it a friendly competition

Hopefully this gave you some ideas to get you in the Christmas spirit! Happy holidays everyone!!

is.all.on

I REALLY SHOULD BE WORKING ON MY GROUP PROJECT RIGHT NOW...

I really need to…

I just watched the editors play the Poople at **prodNIGHT**…

My poor group members…

Lars Nootbaar

A LIST OF N REASONS WHY MATHSOC IS DYING...

... AND A GUIDE TO RESUSCITATING IT

As a free food connoisseur, MathSoc is **integral** to my daily life. Many a time have I gone hours without food, and many a time has MathSoc provided me with much needed sustenance. That said, it is not in my best interest for MathSoc to die. In 935 words, I hope to diagnose MathSoc's condition, and tell you how ***we*** are going to remedy it.

Everyone knows MathSoc, but nobody *"knows"* MathSoc.[1] Everyone can accurately describe FanFic Club or EngPlay.[2] Sure, there's free food and more money to PMC, but at its core, MathSoc is a society of students, for students, by students, and so much more. That said, if all that comes to mind when you think of MathSoc is free food, then you're a victim of their mediocre presence.

What, then, is MathSoc's purpose? Its purpose is to benefit students via advocacy and running events. It is not the Faculty of Math OR **mathNEWS** OR any other affiliated clubs. The *Average Math Student*™ will either say *"MathSoc has their name on everything but delegates the actual work to its affiliated clubs"*, or *"Yeah I have no idea what MathSoc does."* The absence of a concrete idea of their purpose leaves room for misinterpretation and apathy, and apathetic members are a leading cause for the death of many a well-intentioned organization.

A common complaint across majority of interviews was organizational structure. MathSoc reportedly has terrible organizational structure and has been referred to as the only math-related body incapable of performing a decent transition. Elections are held too late,[3] transition notes are outdated, volunteer roles are unclear, there is little to no accountability, the executives' workload is excessive — I could go on and on.[4]

As Gordon B. Hinckley said, *"You can't build a great building on a weak foundation."* Without the necessary structures in place, it is impossible for an organization to thrive. To fix these issues, I recommend the following:

- Elections should be held a term in advance, especially as MathSoc has a termly structure.
- Transition notes should be updated frequently, typically before the end of the sitting exec's tenure.
- Update volunteer position descriptions. They should be specific and read like something that could be pasted on a resume.
- Review organizational structure. I think a Flat or Functional Organizational Structure[5] would suit MathSoc best. This would allow the workload on executives to be alleviated.

I believe these changes would introduce much-needed order into the organization.

There is an excessive amount of bureaucracy in MathSoc. Rules are wonderful. I myself am a big fan of rules. But there must be some form of moderation. According to information collected during interviews,[6] council has become a glorified budget meeting, where the Speaker attempts to convince people to run for positions. Council used to be about advocacy, and not discussing whether CSC needs an additional $550 in their budget. People who are trying to get involved should not have to read the bylaws in their entirety to understand what is going on at council. Performing simple tasks should not require jumping through several hoops to get things done.

Additionally, MathSoc under-utilizes its available resources. MathSoc has access to firsties during orientation. MathSoc is looking for continuity, so the logical thing would be to market MathSoc to firsties at orientation, before they make other commitments during the term. Another example is managing the MathSoc website. The Faculty of Math has roughly 550 firsties in CS and SE combined. A lot of people out there are looking for things to put in their resume, and you are likely to find enough people to work on the site. My point here is that solutions to these existing problems do not need to be convoluted. They can easily be solved using pre-existing resources.[7]

The only thing MathSoc does for Software Engineering students is an annual article in **mathNEWS** Fall Term Issue 1 reminding us that we belong in the Faculty of Math. On multiple occasions, they have had to be reminded that Software Engineering is indeed a program under the faculty of math. While SEs may make up a small fraction of Math Students population, majority of them feel othered by MathSoc and the Faculty as a whole. I believe that if MathSoc was more welcoming to SE students, especially first years, more people would be willing to participate in MathSoc related activities.

All the suggestions here are pointless if MathSoc refuses to change. MathSoc's biggest issue is its resistance to change.[8] Many people have raised these issues before me, and many of them were interviewed for this article. But if we all keep talking and nobody is listening, then we're not being heard at all. MathSoc needs to let go of some of its dated practices, accept new things, and embrace change, if any progress is going to be made.

I apologise if this article is not up to standard.[9] School is killing me. But as an *Upstanding Member of the Society*™ I believe that this needs to be said. For now, I will refrain from using my MathSoc fees to buy Lazeez in the plaza, but if you have any questions, you know where to find me.

hinkyjinks

Please don't let me starve. I beg.

1. I conducted several interviews over the course of a month in order to write this article
2. Cum to EngPlay!
3. Not to mention poor voter turnout and engagement
4. We don't even have a president

5. http://www.forbes.com/advisor/business/organizational-structure/
6. Unfortunately, I don't have much experience with MathSoc, so this is based on interviewees' experiences. It was mentioned during an interview that previous attempts to reduce the bureaucracy were countered by the introduction of more bureaucracy
7. We have pizza at home ;)
8. Some people claim it's the recent absence of a *Public Enemy No. 1*
9. I procrastinated too long, it's now 12am, I'm barely coherent

DISCLAIMER: This article was written based on data collated throughout multiple interviews, and are not necessarily my or **mathNEWS**' opinions. I believe in boots-on-the-ground journalism and doing your homework.

HOW DOES ONE FALL IN LOVE WITH THEMSELVES AGAIN?

I MISS WHO I WAS

When I was a kid I felt like I knew who I really was. How far I've fallen from my original preconstruction of my own identity cannot be understated. Coming to UWaterloo felt like I finally knew where I should be and how to become myself.

I'm not all that productive but it seems like every chance I get to think about myself, the only thing my mind can focus on is my lack of productivity.

It's not even that I'm not very productive; I'm mostly scared that I'm not passionate about anything. I don't know how to find out more about myself and see what I want to do.

I miss knowing who I am. I miss being able to sleep at night without having an identity crisis being cut off by the guilt of falling short of being perfectly productive. I miss enjoying my school subjects.

I know university is a time of finding yourself and becoming who you truly are but I wish that didn't come at the expense of my grades. To top it all off, whenever I feel introspective like this, I get worried that I'm spending too much time in my head and not making the most out of my life and the privileges of it.

Anyways, I'm writing this because I wanted to know if anyone feels the same, and if you do, you're not alone.

numberoneespeonfan

MATH 135 SIMPLIFIED DEFINITIONS

MATH 135 PTSD

Hello first years, now that you have settled into your new lives here and any glimmer of hope in your eyes has vanished, let's talk about MATH 135. It is a course that is extremely important, not necessarily for the concepts (at least for many disciplines) but the skills and problem-solving it teaches. That being said, the course covers many basic parts of number theory, cryptography, and complex numbers, especially in the latter half. During this you will learn many definitions, corollaries, and propositions, with many having names that have little to do with the concept. Below, I, the random math student, shall make this understandable. Trust.

- *Euclid's Theorem* → *Infinite Prime Theorem* (Chapter 6.6)
- *Euclid's Lemma* → ~~Who the fuck is this Euclid guy, TOUCH GRASS~~ *Prime Division of Composite Lemma* (Chapter 6.7)
- *Fermat's Little Theorem* → *To the power of prime -1 & Mods* (Chapter 8.7)
- *Chinese Remainder Theorem* → *Linear Congruences of Coprime Numbers* (Chapter 8.8)
- *Generalized Chinese Remainder Theorem* → *Generalized Linear Congruences of Coprime Numbers* (Chapter 8.8)
- *De Moivre's Theorem* → *Polar Form to the Power n Theorem* (Chapter 10.4)
- *Riemann Hypothesis* → ~~Wait what the fuck I don't remember doing this~~ *MATH 138 Trailer: The Rise of Integral (also pi)* (Chapter 12.1)

I hope this is useful if you have a hard time remembering these random names, or you found it funny at the very least. Anyways good luck in the course, don't slack off studying or the grim reaper (your prof) WILL get you.

Mr135Sky

You may have noticed a bit of a common thing here where most of them are named after Europeans, with the few non-Western ones such as the Chinese Remainder Theorem being named after the culture of origin. This opens a rabbit hole on racism in mathematics which this article is not about but is a very good read I'd recommend it. Also I'd like to say, chapter 12 was not taught in F25 so you're probably safe from that. Anyways the only real reference is the textbook, underwhelming I know.
https://cs.uwaterloo.ca/~cbruni/pdfs/Math135Notes/M135Notes_S2018.pdf

ALL ABOUT PROJECT ENHANCER (PART 3)

BEGUN IN mathNEWS *162.3. CONTINUED FROM PAGES 14–15 IN* mathNEWS *162.4.*

Elf Land. Although you are not legally obligated to follow what the matchmakers tell you, you are risking the social standing of yourself and your family if you don't. And maybe that wouldn't be too bad, if it weren't for how super ridiculously problematic the whole matchmaking system is. But I will wait. I will. Seriously.

Look, the basic idea is that Sophie could get married even if she is Unmatchable, but the marriage wouldn't be an easy one. She and her husband (and I didn't say spouse on purpose here because, well, that giant rant I keep delaying) would not have an easy marriage. They would probably face regular social harassment. Their children would face bullying at school and in public. And Sophie + husband themselves could potentially be barred from government jobs.

That last bit is part of that whole giant rant again.

Should I just give it?

No. I will wait. I will stay on topic.

Anyway, the important part is that Sophie is new to Elf Land so I'm not sure that she's super concerned about the marriage and kids bit yet. I mean, a little bit. But she's mostly worried about people gossiping about her being Unmatchable. She's fifteen.

Fitz, on the other hand, doesn't see it the same way. He sees this as a catastrophe. His family is super prominent in Elf Land, so their social standing is a big deal. And its taken some hits in the last couple years since Fitz's older brother turned out to be a terrorist who helped [11-9-4-14-1-16] [19-15-16-8-9-5] [1-14-4] [4-5-24] at the end of Book 1. For anyone who is curious, yes Alvar's apartment is where Keefe was staying when he didn't want to move back in with his dad.

Anyway, Sophie decides to try to find her biological parents, with the help of her friends. And side note, but there's actually a really sweet moment between Sophie and Dex when she tells him that she's Unmatchable where he just wants to make sure that she's okay. End side note.

I'm not going to give too many details of the investigation because most of it is boring. But eventually, after making some progress, Sophie decides to stop searching for them. It's due to complicated and emotional plot stuff, but it is also the right thing to do.

But of course, Fitz has to have the worst possible timing and shows up at Sophie's house right when she comes back from that whole emotional thing. And he's already angry with her about *other* plot stuff.

The exact details of how that encounter went down probably aren't important and I don't remember them too well anyway. But eventually, things boil down to Sophie is going to stick with being Unmatchable, at least for now, and she can't tell Fitz why. This is a deal-breaker for him, so their relationship ends.

By the way, all of this part has been happening in Book 8, which came out in November 2019. By this point, my reading had matured a lot. I had read my first few *Shadowhunter* books, my first few Sarah J. Maas books, and more. So I was actually at a point where I could recognize that breaking up with Fitz was definitely for the best for Sophie. And it was all still in huge contrast to Keefe's behaviour during Book 8, where he was often acting as a mediator between Sophie and Fitz and would be regularly comforting Sophie after they fought.

Plot stuff, blah blah blah, Book 8 ends on a huge cliffhanger. Now, *KOTLC* books pretty much always end on a cliffhanger, but this book's was probably the largest since Book 4. And I had to wait a full year for the next book to come out.

And then blam, COVID.

That March, I ended up purchasing copies of the *KOTLC* books that I didn't have using gift cards, so I was able to read these books. I actually really immersed myself in the series during this first year of COVID. I learned the game *2048* by playing a *KOTLC* version almost constantly. I also started properly getting into fanfiction during this period.

My site of choice at the time was Quotev. I'm pretty sure I found it originally for its personality quizzes. And I was using it before lockdown, but not as much. I eventually made an account so I could comment on works I was reading (pretty much all *KOTLC* ones).

Now, as we got closer to the November 2020 release date of Book 8.5 (not Book 9, because well, that's just what Shannon Messenger did), I suppose I started really wanting to write my own ideas of what would happen in it. So I did. And then, that October, I published fanfiction for the very first time.

I had been reading enough other fanfictions that were publishing quickly that it seemed very natural to me to be putting out a chapter every day. This turned out to be unsustainable. Especially when my midterm report card came in and I realized "Oh crap, I need to get my history mark up." I was also working on a NaNoWriMo project that month too.

I eventually made it through nearly the entire fanfiction. I never wrote the last chapter, which is probably always going to be something nagging at me unfinished, but oh well. I barely even remember the ideas I had for it anymore.

By the end, the story had kind of shifted. It started as a "what do I think Book 8.5 will be" and turned into "let's just do vague plot stuff to get Sophie and Keefe together." Honestly, I'm kind of proud of some of it, even though I didn't finish it. Some of

the writing I read back and think is pretty clever. Other parts I cringe at, but oh well.

And no, I will not be providing a link. Go hunt it down on Quotev if you're that interested.

And now, it is finally time to start talking about what I named this

pencil

IMPORTANT MESSAGE

I HAVE SOMETHING VERY IMPORTANT TO SAY

Can everyone please write a bad article next issue.

I know I sound crazy and stupid, but you have to hear me out on this one.

I really want to win Article of the Issue but I'm disadvantaged by being lazy so if we all chip in to make next issue really *really* ***really*** bad, then I can come out on top and know what it's like to be talented, funny, popular, and have journalistic integrity.

I want that Math Coffee and Donut coupon *really* badly, okay? I've never been there in my lifetime of being a student, but I can dream of what it's like to have a few dollars deducted from the cost of a singular donut. It feels pretty freaking good.

And I'm also not good at crosswords, so this is what I do instead. Beg. I will beg in **mathNEWS** for us to all stoop to our lowest and churn out garbage articles for this upcoming issue.

I believe that we can make the next issue the worst one yet, with one mediocre-milquetoast-nothing-article (written by yours truly) coming out on top. Then I'll finally be able to experience the glory that comes with having my article's unoriginal and clunky name and pseudonym tolerated on the inner front cover, where the article-of-the-issuer is announced.

Please. I need this more than you do. If you have a really good idea for an article, you should wait until next next issue to post it.

[Editor's note: The AOTI prize is not a CnD coupon.]

soon-to-be article-of-the-next-issue

FASHION FOR CHANGE HOLIDAY MARKET

PLEASE COME PLEASE

ON NOVEMBER 27TH 6PM–9PM IN STC BASEMENT

COME ONE COME ALL

TO THE **FASHION FOR CHANGE CHARITY HOLIDAY MARKET**

There will be a bake sale, Photo Booth, Collage Station, as well as other crafts and LOTS OF HOLIDAY GAMES!!!!!!

There will be Fashion for Change Dances and Fashion for Change Model scenes.

It will be a winter wonderland for you to explore!!!!

All the funds from the bake sale will go to our charity for the year which is… **Nutrition for Learning**!!!!!!!

We also will have a booth where we will be collecting items for House of Friendship, a shelter in KW region.

Check out our Instagram for more information: @fashionforchange

PLEASE COME IT IS FUN AND IT SUPPORTS CHARITY!!!!!

NOTHING ELSE WILL GET YOU IN THE HOLIDAY SPIRIT LIKE THE FASHION FOR CHANGE HOLIDAY MARKET!!!!!!

papasmurf

NICHE KRILLION

1. Name a *Minecraft* mod made by Vazkii
2. Name a top-level Kotlin standard library function
3. Name a voicebank (e.g. Hatsune Miku)
4. Name an audio encoding format (e.g. MP3)
5. Name a software license
6. Name a subgenre of Electronic Dance Music
7. Name a Wikipedia user group (e.g. administrator)

beef

RANKING EVERY NHL HOMETOWN REMIX JERSEY

TL;DR: JUST A LOT OF "NON-UNIQUE SINGLE COLOUR ON DARK BASE" JERSEYS

Anaheim Ducks: C – good throwback, just hard on the eyes

Boston Bruins: F – not a great word mark, plus only the Padres can pull off brown and yellow

Buffalo Sabres: B – logo could pop on the jersey more

Calgary Flames: F – completely unoriginal, looks like a waffle

Carolina Hurricanes: B – bold and daring, feels more like a college jersey

Chicago Blackhawks: C – just indifferent

Colorado Avalanche: B – clean, could do with bolder, darker colours to make the logos and stripes pop

Columbus Blue Jackets: B – the cannon as the logo is nice, but grey doesn't pop

Dallas Stars: C – clean but looks like any other Stars alt jersey

Detroit Red Wings: F – did they even try? Just a worse version of the home jersey

Edmonton Oilers: D – the colours don't work but at least there was effort

Florida Panthers: A – absolutely incredible, just doesn't look as good on the ice

Los Angeles Kings: S – bold colours and clean

Minnesota Wild: C – could do with more colours on the jersey instead of just a lot of black.

Montreal Canadiens: B – sleeves are nice, but not much elsewhere

Nashville Predators: B – cool flourishes, could have more colour in the logo

New Jersey Devils: F – I swear they already have this jersey

New York Islanders: B – cool callback, but could've been more bold

New York Rangers: F – gimme an alt jersey with nothin'

Ottawa Senators: F – just the home jersey but the gold makes it pop less

Philadelphia Flyers: D – the grey just does not work

Pittsburgh Penguins: C – bold for sure, just could be a different colour

San Jose Sharks: S – unbelievably solid

Seattle Kraken: S – yet another clean jersey

St. Louis Blues: D – not a huge fan of the logos that look like a stamp because it reminds me of a practice jersey. The arch makes it just way too busy

Tampa Bay Lightning: C – once again, stamp logo, could just be the skull. I like the blue but could be more daring than single colour on dark jersey. Looks like the Canucks jersey

Toronto Maple Leafs: A – word mark would work better up top

Utah Mammoth: A – clean jersey, logo just a bit too simplified imo

Vancouver Canucks: A – clean jersey, just could've been more daring than single colour on dark jersey. Looks like the Lightning jersey

Vegas Golden Knights: C – indifferent, plus it's just gambling

Washington Capitals: S – clean logo, clean colours

Winnipeg Jets: A – cool concept, but makes the logo hard to look at

fingersinsockets

SAM AND FRODO KISSED

NOT CLICKBAIT

Dear readers,

Same and Frodo Kissed

Sam would never marry a random woman

All those longing looks

All the hand holding

All the (too long) hugs

They were homo

Just let it be true J.R.R Tolkien

papasmurf



WHAT HAPPENED TO AUDACITY?

I fear, as I scroll Reddit and walk around campus, the city, at home; I fear that people are lacking in the whimsy, audacity and fun that makes life more fun.

The reason I write this: I'm so sorry to who ever posted this but someone asked about if they could use their extra meal plan money from first year in their later years of education. My first thoughts were "it's money, who cares?" and if you weren't allowed to use that money I believe that would be illegal due to Canadian gift card laws, but I am not a law student this is **mathNEWS**. (I'm not a math student either but that's besides the point, look at me and my audacity)

But then I start to think, and think I do. About why people might think like this, what is the cause or whatever. I hate to let my bias (that being people in Waterloo) be my anecdotal bias. But you know what, who cares?

But, but, I don't think I personally care enough about all that to write about it. It is after all just me thinking, and hypothesizing. And I'm not high enough to write about all that.

So what I would like to write instead is things that I think one should do to increase whimsy in general, or audacity generally.

- Go to a club that you aren't a part of and go socialize with people. I've been having fun going to random board game nights but you can feel free to go to other clubs. I've found that eavesdropping a respectable amount is quite good. And share your thoughts. Just like don't be creepy <3.
- Say hello or hi to people as you pass them by, it's a lot easier to start with people you barely know, or people that are in your class you sit near. A simple closed mouth smile and nod is fine, too but like work up to a hello over time. Or hey, you get the point.
- Go be toxic in a game. So like I don't like when others are toxic in games, but you know what you can do so in solo games too. And like you know what, I don't know or care about people in games that are being toxic so like if that lets you be more audacious, go for it I guess?
- Say yes to say anything and follow through with the plan. Within reason. Don't go over-booking yourself. But it's quite a fun way to do it.
- Film a video of hitting your protein goals, à la eating an entire jar of peanut butter. Or something like that. I wouldn't but like I could be more audacious too.
- Go write a funny fan fiction and post it to **mathNEWS**. Or anything but I like to read the fanfic and comics.
- Talk to and treat the people that serve you like people. Within reason, don't try to talk to your barista when they look busy as hell, but if they don't look super busy, give em a yap.

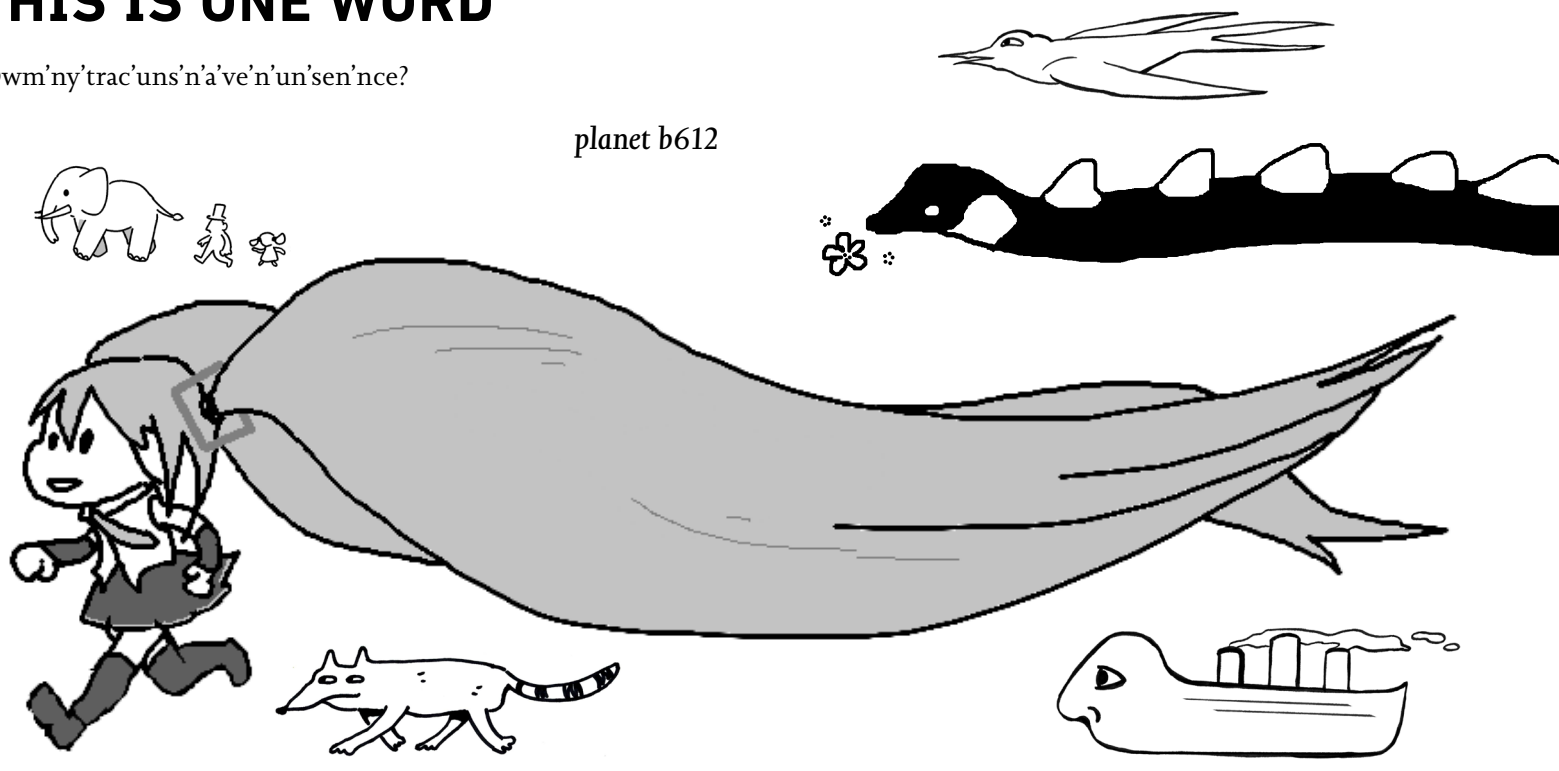
anyways I'm bored, go, be audacious. and have fun.

Ignis_anima

THIS IS ONE WORD

'Owm'ny'trac'uns'n'a've'n'un'sen'nce?

planet b612



GRIDXGRD

WARNING: GRAPHIC CONTENT

gridCOMMENT *162.5*

howdy doo **gridWORD**ers,

lots of big current events happening recently. you can probably guess the theme of this **gridWORD**, 'nuff said. some of the content could be "graphic" in nature, if you're picking up what i'm putting down hahahahaha

anyway. last time, i asked you all: what is the maximum amount of time you would be willing to spend lining up for heytea, and what would you get? and you all said:

- *subbo*: 67 min. coconut mango boom
- *sunnysideup*: I'd be willing to stand in line at heytea for all of 20 minutes, and I'd get the coconut mango bloom
- *saveferris*: two minutes and I would get coffee, but ask me again when midterms end

i went and tried all one of the suggested drinks; they did not have coffee, or the coconut mango bloom. unfortunately, spelling DOES count, so congratulations to *subbo* for being the heytea connoisseur!!!! i'm glad you have so much free time in your life. please pick up your prize at mc 3030. this issue's **gridQUESTION** (and the final one of this year) is: what theme should i make the next **gridWORD**? may the stupidest answer win. please submit your completed **gridWORD** with an answer and a pseudonym to mc 3030 or mathNEWS@gmail.com by 6 pm nov 30.

cya,

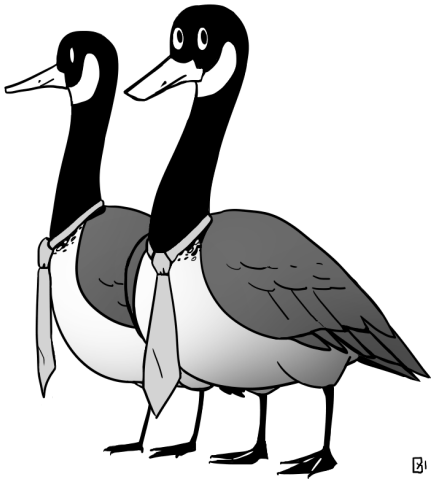
spaghettiinhalers

ACROSS

1. Parallel-computing platform by 21-Across*
5. Red-clad smurf
9. Version control software, for one
12. Whopper toppers
15. ___ Lang Syne
16. Generation
17. ___ Bobby Brown
18. Notion
19. Devotee
20. Old French coin
21. Santa Clara chip giant*
23. Kim ___-Un
24. Point
25. Actress Aniston, to friends
26. 1911 Chemistry Nobel Prize winner
27. Chemical suffix
28. "Me, myself ___"
30. Classic yo-yo maker
31. Surrender
33. Rebel
35. GB200 chip family from 21-Across*
38. Chosen one
41. Ice princess
45. Fit in
46. Nimble
49. ___ Arbor
50. Lowlife
51. Backing
52. Crock
53. Suns
54. Huang of 21-Across*
57. Haul
58. Colony member
59. Used up
60. Golf shot
62. Reduce swelling
63. Match
64. H100 chip architecture from 21-Across*
65. Actor Beatty
66. Nullify
67. Car dealer no.

DOWN

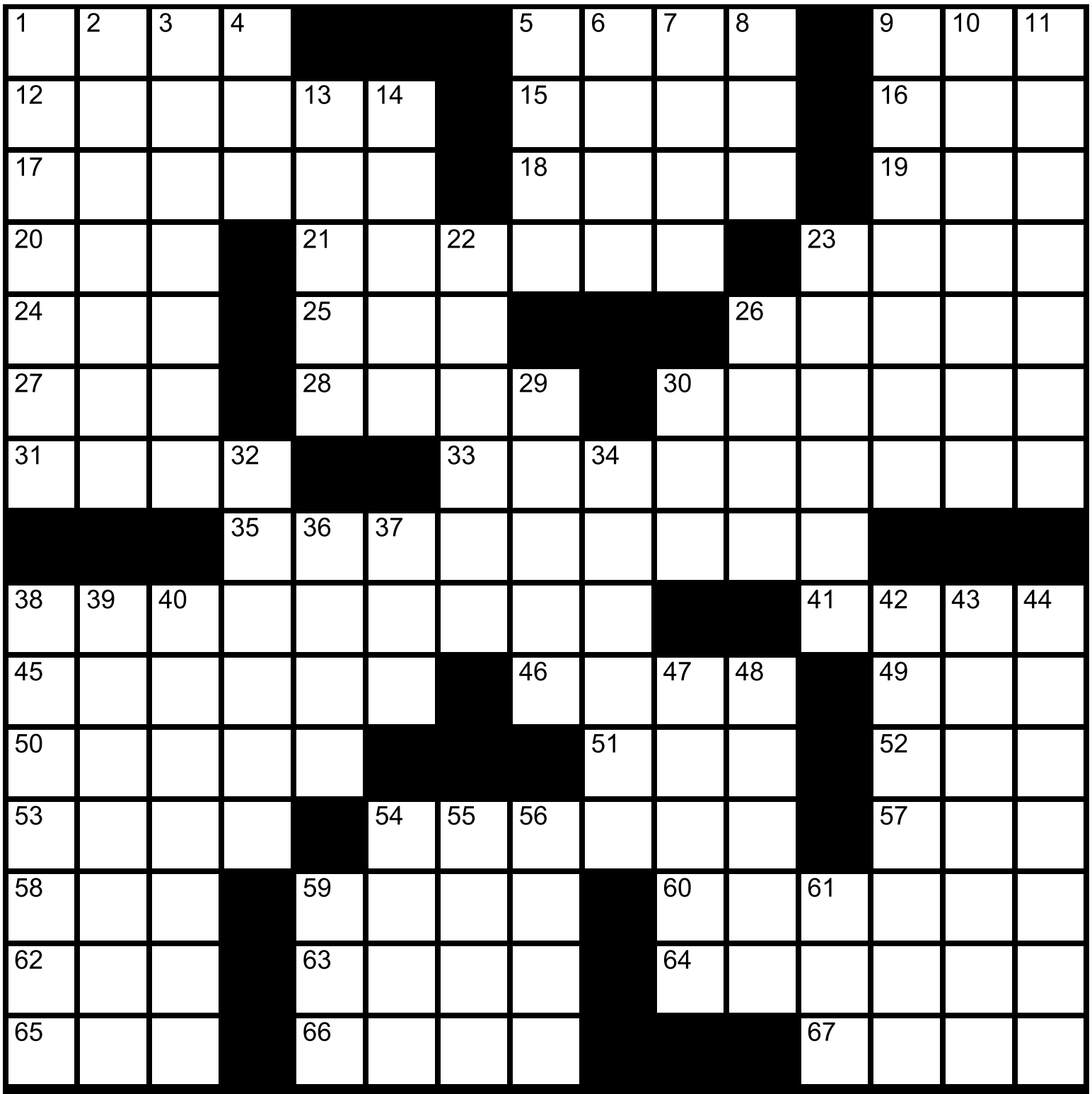
1. Funny
2. ASCII alternative
3. Watered down
4. Yahoo! competitor
5. Discharged a debt
6. German car
7. Request
8. RTX 40-series architecture of 21-Across*
9. Gaming line by 21-Across*
10. Shiraz resident
11. Sine/cosine
13. "Teenage Mutant ___ Turtles"
14. Evening hour
22. Charge
23. BLG Xun's lane
26. Hair ringlet
29. Tattooed
30. Expected
32. Kindle downloads
34. Wins everything
36. Queue
37. Geom. measure
38. Fast
39. Atonement
40. Got a garden going
42. Portable PCs
43. Billiards game
44. Belgian seaport
47. New
48. Scout master?
54. ___ of Arc
55. City west of Tulsa
56. Claudius' successor
59. Briefly, bread and butter of 21-Across*
61. Engine speed, for short



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

A PERPETUALLY BORED mathNEWS EDITOR

GRIDXGRID



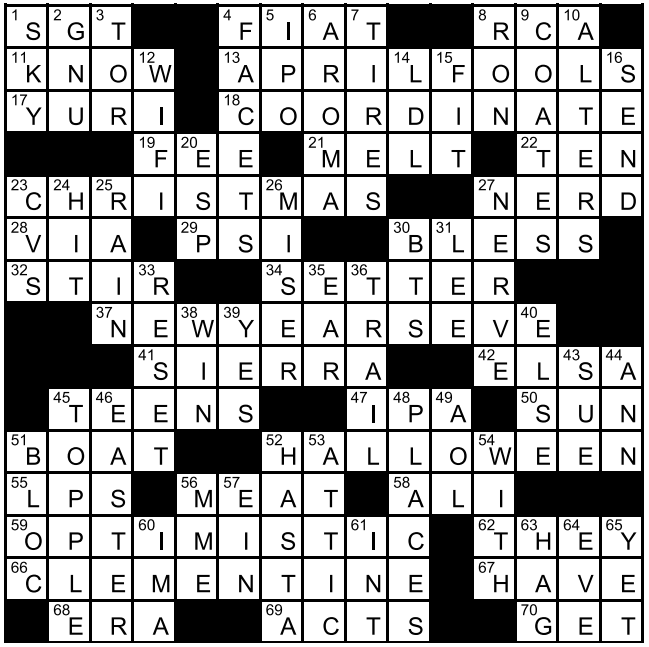
Your attitude towards your grades should be the same as my attitude towards getting them to you, in that I don't really care.

PROF. DAVID JAO

lookAHEAD

SUN NOV 22	MON NOV 23	TUE NOV 24	WED NOV 25	THU NOV 26	FRI NOV 27	SAT NOV 28
Go for a Ride Day	Drop/Add Period Begins	Drop With WD Ends Winter 2027 Add Period Begins (Open Enrolment) Cycle 3 Interview Period Ends	Drop With WF Begins Cycle 3 Employer Rankings Available	International Cake Day MathSoc Games Night, MC CnD, 7:30–9:30 PM	Cycle 3 Student Rankings Due at 2pm Cycle 3 Match Results Available Black Friday	National Alan Day
SUN NOV 29	**MON NOV 30**	**TUE DEC 1**	**WED DEC 2**	**THU DEC 3**	**FRI DEC 4**	**SAT DEC 5**
	Cyber Monday **mathNEWS** 162.6 **prodNIGHT**, QNC 2501, 6:30 PM	World AIDS Awareness Day	World Pollution Prevention Day		Hanukkah Begins **mathNEWS** 162.6 releases	World Soil Day

LAST ISSUE'S gridSOLUTION



ALBERTA UNITED CONSERVATIVE PARTY DO SOMETHING USEFUL CHALLENGE

DIFFICULTY LEVEL: IMPOSSIBLE

Why are you de-emphasizing the humanities and sciences and math in favour of making Grade 12 physical education a requirement for graduation. Why are you reducing the required number of provincially standardised tests for graduation to one. My school didn't let people take Grade 12-level classes in Grade 11 unless there were extenuating circumstances (for example, needing to fit university course requirements around IB sequencing). Which is going to be even harder now that they have to take a required physical education class. Demetrios Nicolaides (Minister of Education and Childcare) when I Get you

aurelio

Want to advertise *your* campus club or event in mathNEWS? Email us an article, or come to our next production night!

We'll do anything for more filler content.

THE EDITOR DOOMSCROLLING
mathNEWS@GMAIL.COM