

math NEWS

Volume 124, Issue 4
Friday, February 28, 2014



*math*NEWS Attempts to Vote for Democracy



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lookAHEAD**mathNEWS**

February 28	Issue 4 goes into the start menu
March 10	Issue 5 gets stuck behind a table and a trainer
March 14	Issue 5 gets released into the wild

MathSoc

March 14	Pi Day
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Math Faculty

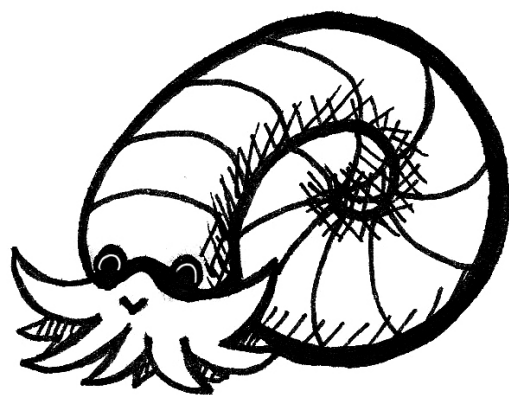
March 12	Computational Mathematics' Free Sushi Night
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CECA

February 28	First interview cycle ranking opens 1PM
March 3	Advisors available for first interview cycle job consultation: 10AM-1PM
March 3	First interview cycle ranking closes 2PM
March 3	First interview cycle match results 4PM
March 5	Continuous interview cycle starts

University

March 1	March Break Open House
March 3-8	Fall 2014 Course Selection Week
March 10	Last day for students to make changes to their exam schedule
March 21	Drop, penalty 1 period ends
March 22	Drop, penalty 2 period begins



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Air Jordan (Murphy Berzish), Bird Jesus (Julie Sturgeon), Lord Helix (Rachel Wiens)

mastHEAD

The Editors continue to be too uninspired to provide a blurb with the *mastHEAD*. The question asked this week: "What will be your answer to next issue's *mastHEAD*?"

Beyond Meta ("42"); Ice Nine ("Whips and chains"); himyma-meis ("sexy macarena"); wibz ("echo papa tango"); MuffinED ("3 Chilean llamas and a hot dog"); Deressimist ("Bleak. Hopeless. Unforgiving. Like humanity."); unit ("Ask me again in two weeks."); GingerbrED ("All of them, especially the goldfish"); Element 118 ("Post-modern sex toys"); Stubbs ("Pink fluffy unicorns dancing on rainbows."); ScruffyED ("Probably the same thing I wrote in the issue before that one."); MustardMap ("I killed him."); tesseract ("The real question is 'How many times have you had sex in the past week?'"); xoxo ("Positive thinking and dessert."); (define this (not cool)) ("My answer to last week's *mastHEAD* question."); Soviet Canadian ("One bottle of every kind."); Zethar ("The magic of—wait, I cannot divulge the secrets of the conspiracy until the time is right."); Biomy ("ONWARD"); theSMURF ("A Brazilian prostitute doing a line off of my chest while Steven Harper and Carl Weathers engage in an epic air guitar duel."); k! ("The emergency pile of Imprint sitting in my living room, whose primary use is as bunny litter.")

Are you a math student? Do you love FREE sushi?

Computational Mathematics would like to invite you to attend a Sushi Night to learn more about the program here at UW.

It will be an opportunity to socialise and enjoy some good sushi and a variety of Japanese cuisine! CM seniors and alumni will share their experience in CM.

It will take place on Wednesday, March 12th in DC 1330 at 4:30PM. It is a free event however we need to know if you plan to attend.

RSVP with Patty at p2robins@uwaterloo.ca by March 5th if you can come. Hope to see you there!

Are you a math student? Do you love FREE pizza?

You don't even have to be a math student! All you have to do is write or draw for us, and submit your work to mathnews@gmail.com. You could even earn your pizza by writing something as small as this filler here, or through drawing stuff like the pointless bunnies strewn throughout the issue. Amazing!

Stéphane Sez

Thank you!

Stéphane Hamade
Vice President, Academic

Open Forum Event for CS Undergrad students!

Free Cupcakes!

Do you have complaints about your CS Undergrad Program? Don't just complain on reddit.

Come and complain to the CS Undergrad administration on March 5th at 2:30 in MC 2066. We will also talk about some changes to the CS Program, which may impact first and second year students, as well as incoming students.

We want your opinion. Also, we have cake.

Simone Paull

spaul@uwaterloo.ca

Meet the Exec: VPF

Josh Tsai

Vice President, Finances

vpf@mathsoc.uwaterloo.ca

The Vice President, Finance (VPF) of the Mathematics Society (MathSoc) is responsible for overseeing the MathSoc account and the Capital Improvements Fund.



The Vice President, Finances' duties include:

- Keeping track of all money-related matters inside the society
- Drafting budgets
- Processing expense claims
- Sitting on all finance-related committees under MathSoc
- And more!

The VPF of MathSoc should be someone who is a serious and committed, and someone who is able to communicate well with others. When Josh first started at UW, he was very involved as he was an office worker for MathSoc along with being on the funding council of the Math Endowment Fund. Eventually, he became an executive of the Math Endowment Fund, which gave him a better understand of how finances worked in the school. Considering how demanding, yet rewarding, this position is, you must be a committed and knowledgeable person to do this job well.

The MathSoc experience can be very rewarding. Josh gets the opportunity to meet new people, both in and out of the Faculty of Mathematics. He is constantly improving his leadership, teamwork, financial, and communication skills. Getting involved early is very important, so check out the MathSoc website (mathsoc.ca) to see how you can get involved today!

Success Coaching in Math Tutorial Centre

Hi Mathies! My name is Melissa McNown-Smith and I'm a Success Coach from the Student Success Office. Starting on February 25th, I'll be available in the Math Tutorial Centre on Tuesdays from 11am to noon. You can drop by and talk with me about things like:

- Effective problem solving and study methods
- Time management
- Test preparation and test anxiety
- Note taking and reading skills
- Goal setting
- Procrastination

Not sure if you need help from a Success Coach or from another campus resource? Drop by and I'll be happy to point you in the right direction. I'm also always interested in talking about who your favourite Doctor is and why (mine is 10 but I can appreciate the others), Sherlock (two more years until season 4, seriously?), and board games (fun but they have the power to ruin friendships).

I hope to see you on Tuesdays from 11AM to noon in the tutorial centre!

Melissa McNown-Smith

Success Coach

melissa.mcnown-smith@uwaterloo.ca

Centre for Knowledge Integration and Department of Sexuality, Marriage & Family Studies
University of Waterloo

STUDENT PARTICIPANTS NEEDED FOR ONLINE SURVEY:

(DIGITAL) CONNECTIONS: STUDENTS, TECHNOLOGY & RELATIONSHIPS

We are looking for **college/university students** to take part in an online survey examining the role computer communication plays in the formation and maintenance of **student relationships**.

HOW TO PARTICIPATE? As a student participant in this study, you would be asked to complete an anonymous, 40 minute or less computer-based survey **found here:**



https://www.surveymonkey.com/s/Digital_Connections

In appreciation for your time, you will have the option to enter into a draw for a chance to **win a Tim Horton's Gift Card**

Mental Illness in Math

Our Meeting with Professor Furino

In January, a small group of students met with the Faculty of Mathematics' Undergraduate Associate Dean, Professor Furino, to discuss managing mental illness within the Faculty. Among things discussed were policies and general concerns of those with mental illness attending university. This originated as a small protest against the university's Mental Health Awareness week, which we felt spent more money on spreading the wrong messages than helping people with mental illness.

We addressed some problematic policies within the Faculty, such as limited course attempts. According to Professor Furino, this stems from the original faculty-wide policy of completing all 48 courses required to graduate within 48 attempts and within eight semesters.

We have made progress in some policies, with the allowance of reduced course loads for example, but this does not properly accommodate students who might lose weeks at a time due to their illness. The Arts Faculty, for comparison, does not have a maximum number of course attempts, and following their example will make it easier for people to withdraw from courses and semesters in response to crises.

It is not uncommon for students facing a crisis to withdraw from an entire semester, resulting in numerous WDs all at once. Several instances of this, then, would result in a student being kicked out of the Faculty, lest they petition to have the semesters zero-credited. Removing the course attempt limit would make this unnecessary. The question, however, is how this new policy could be abused by other students. Following this, another pressing question was raised: at what point is it in a student's interest to no longer attend university?

Mental Health Awareness week describes students with mental illness as a statistic and does little to educate beyond this point. It is common for those with mental illness to spend a long period of time denying their illness, and to pass it off as poor study habits or poor time-management skills. By saying, "One in five people suffer from mental illness," we imply that mental illness happens to other people—not you or me.

The university's Mental Health Awareness campaign does little to inform students how to know that they suffer from mental illness; or, once they do, what course of action to take, outside of advertising the university's poorly-funded services, like as Counselling Services, Health Services, and AccessAbility. Since these services are not mandated by the government, it is unlikely that they will be improved in the foreseeable future.

If you have any comments you would like forwarded to administration, or if you have any questions, about dealing with mental illness in the Math Faculty, please email me at ktu@uwaterloo.ca, or anonymously through the **BLACK BOX**.

k!

Invisibly Disabled

I live with hearing loss in the lower frequencies. Somewhere along the information transfer from outer ear to brain, something goes wrong, and sound is muffled, or muddled, or even not there. Any male who has ever had a conversation with me probably has had to repeat himself a few times. Currently I'm going through the process of simultaneously being a full time student and being told that my hearing might get worse, to the degree of profound deafness. Hearing aids don't help, they're a pair of tiny, expensive speakers of constant static fuzz from any contact with my hair. Multiplying the sound in my outer ear obviously isn't the solution. Implants are out of the question, due to both costs and heaps of physical therapy afterwards, with high risks and lower quality sound afterwards. I can't reasonably expect anyone who wants to communicate with me to learn to sign, let alone one of many sign languages that exist. So what am I supposed to do about this? So what does any person do when they're on the verge of losing an entire sense?

I'll still have to attend lectures, make phone calls, interact in day-to-day settings like buying things at a store, still have to use context and lip reading and body language as my crutches to have simple conversations with people who can't begin to understand how frustrating it is to lose one of the "big two" of sensory interaction, or how much you wish there was some way for science to advance enough to even know how hearing works, let alone to correct it. Hearing aids and cochlear implants are not magic on-switches for someone who has lost their hearing entirely.* And if the problem is past the mechanical parts of my ear, and into the neurosensory zone? Well, that looks even less promising.

What is interesting though, that people seem to get annoyed when I ask them to repeat themselves, because they mumbled, or weren't facing me, or there was a ton of background noise while they were speaking. If you're so intent on your message being conveyed the first time, then perhaps speaking to someone who is hard of hearing is a bad idea?

Also if anyone has ever been to the ListenUP! Canada website, you may have seen how poorly set up it is for their main demographic: people with hearing loss. There's some lady who just keeps talking like an auto play video on the right side every page, driving it home that "Yes, you have hearing loss! Come buy our product!" and there is little information about each individual location, only not-so-helpful "call our toll-free line!" and "call to book your hearing test!"... sigh.

I'm not sorry for the time or energy you waste repeating yourself to me. I'm sorry that society is so poorly setup for people with hearing loss. I'm sorry that you can't empathize with the invisibly disabled.

yourlocalWHETHERgirl

*CIs and hearing aids may work wonderfully for some, but really, has amplifying poor sound quality and feeding it though a damaged system worked well?

Romanticizing English

English is primarily a Germanic language at its roots—but as other places eventually invaded England, and the Angles invaded other places, they brought their cultures with them, and English gained a lot of loanwords from Latin-based languages, and became more and more of a Romance language externally. It only makes sense that given all the globalization that is happening nowadays, we try and make this change happen internally as well, in the ways and manners that it hasn't already.

One first step we could take is to reintroduce “thou”. In almost every other language, there is a separate word for the singular and plural second-person forms (“tu” and “vous” in French, “tú” and “vosotros” in Spanish, “du” and “ihr” in German). English is (relatively) unique in this quirk, having only the word “you” available, and requiring inferences from context for something as simple as the plurality of a pronoun. We still sometimes use it today, but it has become a word that evokes antiquity, or perhaps images of God as Christians who use the King James Bible sometimes still use this to address him. This would, of course, require us to bring back “thee” as the object and “thy” as the possessive form.

I imagine that the reader will appreciate this change eventually, as I continue this journey into improving the English language. Of course, thou couldst keep using “you”, as it would still be the polite form, but it would imply unneeded cordiality, or would even incorrectly refer to the plural.

Secondly, we would remove capitalizations on demonyms. We speak english, not English, and are canadians, not Canadians (or americans, if you're into that). English would be a singular proper noun of some sort—say, Johnny English. This again puts us in line with every other romance language out there.

I hope that thou wouldst stay tuned for the next article in this series, as we take even more steps into the madness experience of transforming english into a romance language like french and spanish. Rest assured, the language thou speakest today will be much different from the way you know it now.

Ender Dragon



#hockey #winning

So, apparently Canadian athletes of both genders are quite accomplished at pushing objects around on ice. Several million Canadians tuned in to various electronic devices to watch this event. Then we won things, and people were overly joyous for a long time. Fortunately, our politicians had a rare moment of foresight, and changed liquor laws as appropriate beforehand, which was a total waste of time since no cop would have arrested anyone, as they were too busy waving flags around and yelling things. For Canada.

In the spirit of things, here is a list of reasons why Canada should not have won:

- The Swedes had a centre disqualified for using allergy medication.
- Canada's national self-esteem and reputation are already tied waaay too closely to hockey. We do other things well and celebrate them.
- Not cleanly sweeping things would be a good reminder that luck is always a factor and you can't win everything.
- People can be really obnoxious when they win.
- Silver is a nice metal. I like silver.
- Improved Canada-US relations over the next couple of days. Or years.

tesseract

Why I'm Jealous of Engineering's Hell Week

From what I understand, engineering will try to schedule their midterms to all happen in one week (software engineering aside, since they have to take math courses too). And although engineers have one week each term with daily exams, an awful experience they've taken to calling “Hell Week”, I'd rather have what they have than whatever's going on with my midterms schedule.

Since all my classes schedule their midterms differently, and have different numbers of midterms throughout the term (from one to five), I have a delightful spread of exams from the third week of school to the last. Yup. My so called “midterms” span basically the entirety of my term. In fact, I only have 3 weeks where I have no exams to worry about at all.

And I still wasn't able to avoid a sort of “Hell Week” of my own this week: four midterms in four days. And unlike engineering's “Hell Week”, I still have to attend all my classes and turn in assignments. Throw in interviews and you can imagine I'm a little swamped over here.

Gripping aside, I understand that Math will never be able to schedule midterms like Engineering does since even the people in the same programs don't take all the same classes at the same time. But it's hard to feel sorry for Engineering when getting all my midterms done with in one fell swoop with no other commitments sounds so appealing right now.

wibz

Facebook Friend Roulette

Like Chatroulette, Hopefully with Less Genitalia

Last Friday night, I was “busy” filling out a form and sending e-mails, when at one point I clicked back to Facebook and noticed that I had missed a video call from a friend of mine. There are multiple red flags here; I’ll let you take a second or ten to think about them.

... Okay, now that you’ve thought about them, let’s see if you were correct. Red flag #1: Facebook does video calls?! Oh right, that’s a thing, yeah. #2: *I* got a video call?!?! I haven’t video called/Skyped anyone in at least a year and a half, and really that was just for a cousin’s wedding. #3 (which is cheating since I haven’t mentioned anything about said friend): I wouldn’t expect said friend to call me.

Upon inquiry, it turns out that she and a friend were playing, in her words, “chatroulette with our facebook friends”. She said it’d been fun so far, and that some people get caught a little bit off guard; it’s probably rather surprising for the recipient of the call, in truth, but depending on the person, it could be either hilarious or somewhat disturbing, or more likely somewhere in between.

Thus, I think it deserves its own name, and so as per the title of this post (and after two pages of Google Search telling me a similar thing exists), I am calling it Facebook Friend Roulette (with a space and proper capitalization, because I prefer decent grammar.) Let us investigate the nuances of such a game, and pursue the finer details thereof.

Disclaimer: I do not claim to have invented the idea of this game, nor do I suppose that I am the first to publicize it. My research into the area of “has someone done this already” was reading two pages of Google Search hits for “Facebook Roulette”. Thus I apologize if this is nothing new to people. Carrying on, wayward sons:

Firstly, a mechanism for blindly/randomly selecting call partners should be specified. Without doing anything technically savvy, one such method is to, while playing with a partner, have them scroll through your friends list while you have your eyes closed, and then you jab a finger at the screen or otherwise indicate a selection, without opening your eyes until the call starts, to maximize surprise on your part. Alternatively, your partner could just select someone, which works much better if they don’t know your friends that well.

RIP February 29th

It was nice to know you, in years past. But sadly, this year you will not exist. An extraneous quirk of the calendar, only emerging from hibernation on dire occasions, when our alignment with the heavens has been thrown dangerously askew. But the rest of the time, we carry on as though you do not exist, steamrolling violently into March 1st. Though I mourn your timely demise, I look forward to your resurrection in 2016.

tesseract

However, this seems very arbitrary, and we live in the 21st century, so we can, say, write a script to parse through your friends list, and call someone (pseudo-)randomly. At least, I assume we can; there are enough CS students here to justify the claim that the only reason this wouldn’t be possible is if the data weren’t actually available, which seeing as the friends list is visible, seems unlikely. This would be more like the actual Chatroulette experience.

It is quite unlike the Chatroulette experience, however, in that because your potential partners are limited to your Facebook friends, most of whom you perhaps don’t despise, you’re much less likely to encounter nudity/masturbation/murder scenes/hilarious costumes/etc. Unless your friends are into that stuff, I suppose, but I digress. In this way, theoretically it would be a much more enjoyable experience, and would allow you to stay in touch with your Facebook friends, in more ways than just wishing them a Happy Birthday on their Timeline every year. I mildly regret having missed that call, mostly because it would’ve been nice to talk to my friend again, regardless of how awkward it would’ve been, hah. (... It is quite possible that one only plays this game while drunk and with friends, in retrospect.)

Lastly, a brief expository of roulette-style games for Facebook should be given. As mentioned before, Google Search brings up something called “People Roulette”, which is basically Chatroulette where the pool of chat partners is exactly the set of people who use that app on Facebook. This may or may not be a nicer demographic than that of Chatroulette, but it’s also much wider than the set of one’s friends. The other main item is the now-defunct app “Social Roulette” from about 9 months ago, which was a version of Russian Roulette for one’s Facebook account: 1/6 of the time, your account is permanently wiped clean, and the other 5/6 of the time, you post a message on your Timeline saying you survived. Facebook very, very quickly banned the app, citing violation of the terms and conditions of the site. Observe that this is radically different than the other games mentioned here; it should be discussed solely for the thought-provoking hilarity.

I’m not sure I’m brave enough to bother playing such a game as Facebook Friend Roulette, but perhaps it’d be fun, and perhaps it could keep people in touch a bit better. After all, isn’t connecting with your friends one of the main points of Facebook (besides the obvious data mining and content generation)?

Scythe Marshall

Drop your Minecraft username in the BLACK BOX or email it to us at mathNEWS@gmail.com to be whitelisted on our Minecraft server (129.97.134.134).

Europa Universalis IV: Genocide

I'm a nice guy. I always try and do favours for friends and I'm nice and friendly to everyone I meet. Just Sunday, I picked a friend up from the hospital after she broke her ankle. I bring this up because my British Empire is becoming more and more unethical with each passing year. It's not entirely my fault though, part of it is game mechanics simply working/pushing me to make incredibly unethical decisions.

So, as England I made a lot of countries vassals under me (think puppet states) and then integrated them into my empire. One of these countries was Scotland and so I was able to form Great Britain. Also integrated were Aragon, Provence, Holland, Sardinia and Lorraine. Switzerland and Genoa are also vassals but I'm holding off fully integrating because they have claims on surrounding provinces I want as well and Austria is pissed at me as it is. I've also been having major wars for territory in Europe to go along with this diplomatic expansion. As a result, Great Britain now considers the entirety of the British Isles, France, the east and south of Spain, and what would be the coast of Belgium and the Netherlands part of her core territory. None of this I deem too immoral; after all war, against a European power of equivalent technology level is generally considered an okay thing to do.

What is immoral is the way I've expanded in colonial regions. I've been accidentally getting the natives sick, stealing all their wealth, and committing mass acts of genocide. Oops.

It started with the rush to colonize the Americas. I sent an expedition to explore the new lands and find good territories to colonize and once I did I sent colonists to settle. I made the decision to be nice the indigenous populations I came across and trade with them to increase revenue and help support the new colonies. The natives were having none of it though and kept on raiding the settlements.

So I killed them all.

All of them, I had them all slaughtered. WHAT WAS I THINKING? Well, I didn't have the funds to constantly rebuild the torched towns and killing entire populations was cheaper, so off with their heads.

Next, I came across Native American nations like the Iroquois. What happened next was I realized I could easily take all their land for no penalty whatsoever. So, I stole all their land and money. Well, all but one of their provinces became mine. I then left them to their reserve. I did this to two other Native American nations. Two! Out of the ashes of their homeland we built the Thirteen Colonies, Newfoundland, English Louisiana, English Mexico, the English West Indies, English Columbia, English Brazil and Argentine.

The focus then shifted to Africa for expansion. The first colony I planted down produced... slaves. I went to Africa to export slaves. So did the second. The third exported gold, which is marginally better, but still, I'm plundering their natural resources for my personal gain.

Again, thousands of African natives died to diseases that we brought with us, and I chose not to help them because it would have cost 10 gold. And I was saving up a few thousand gold to build a fleet to fight the Portuguese, I couldn't afford to help them.

In the end, then died for the glory of the British Empire. Their sacrifice will not be in vain and neither will India's, who may or may not find themselves having subjugation forced upon them... I may have a problem.

Stubbs

Russian Reviews: Dark Souls

Slow, Methodical, Hopeless

A giant club slams into the ground the knight was standing on a second ago. As the monster recovers its weapon, he quickly stabs it with his spear then raises a shield and retreats. It advances again as he positions himself as far as he can from the cliff face and waits for the next chance to strike.

For those not in the know, Dark Souls is a difficult game. The game has enemies swarm you in open places where you are surrounded, and where giant foes chase you down narrow pathways. Death only takes one mistake. Whether you play as a heavily-armoured brawler, a quick-slashing assassin, a mage, or whatever you decide to be, the game will throw a stream of challenges at you. To surpass these challenges, you will need to test out your enemies and environment, find out how everything works, and use it to your advantage. That boss that has been blocking your progress for the last hour actually has a weakness to fire, and it can't hit anything that is on its right side? Throw fire bombs and roll to its right.

Travelling across the world of Dark Souls, you will find and learn to overcome many enemies, discover secret paths, and learn about what has happened to cause the world to slowly sink into destruction. You will face serious difficulties, foremost being other players invading your world to kill you and take your hard-earned souls (this can happen at any time so long as you are online and you have reversed your hollowing (are human)).

If you were to get this game, I would suggest getting it on a console, as the PC version is not the best of ports. If you do get it on PC, find mods to fix the graphical issues, and capture/hide your mouse cursor. Either way, good luck little undead, ring those bells.

Soviet Canadian

**RED! There's no surfing on
AIIIIIRRR here!**

Snow Days in Pennsylvania

I went home for Reading Week to Pennsylvania, during which they had two snow days. They'd had two snow days the week before as well, meaning my sister was basically not going to school. I have nothing against snow days—in fact, I love them, and would enjoy a few more of them if I could. It was the reason why they had the snow days that rubs me the wrong way.

The first day, there was a solid three inches on the ground of snow, all of which I had to shovel, and that is a decent enough amount of snow. Maybe not enough to warrant a snow day, but the school district has to make the call before they actually know how much snow there will be. So maybe there was some misjudgment going on.

The second day, there was a little bit of rain. And they called a snow day. Believe me, I understand it was cold out and it froze a little on the ground making conditions maybe slightly hazardous. But seeing my sister have a full day off school because of a little drizzle? Maybe I've become a hardened Canadian up here, but I do not understand.

On a different note, I got the hockey games from a completely different perspective down there. No one was pleased with the outcomes. Especially not the first one.

Punbelievably Bad Puns

wibz

I was getting tired during my driving lesson so my instructor suggested I take a brake.

Two Canadian cats are drinking milk. One cat says to the other: "You know that we're lactose intolerant, right?" The other cat replies: "Cheese that's a dairy of a situation, eh?"

A drunk squirrel is jumping on the roof of a bar. The bartender says: "I knew I should have given him something with less hops, this racket is nuts!"



Element118

(Mis)Adventures in Depression, Part I

(A two-part adventure. Trigger warning for suicide.)

My clinical depression began around my sixteenth birthday. I had begun to hate myself again, when half a year earlier, I was genuinely liking myself for the first time in my life. I constantly felt lethargic and apathetic with bouts of unhappiness; and the world around me felt dissociated, as if in a haze from a fever. I told two adults: my English teacher and my mother. My mother told me that she went through this as a child as well, and said that everything would be gone by my seventeenth birthday. "Until then," she advised, "don't think too much."

In April, I convinced my mother to take me to the local doctor, who told me I could not possibly have depression because my grades were high. She told me to join more clubs, go outside more often, and find more friends. I attempted suicide the next day.

My English teacher made several efforts to have me seek professional help, which I did reluctantly, and I never returned to the same place twice. Whenever my depression overwhelmed and suffocated me, I would wander to her office or classroom and sit by her desk, or else sit in the stairways cooled by the breeze of the outdoors.

My grades did not drop until the next school year. My seventeenth birthday came and went. By then I had seen my family doctor, who was more competent and had an assistant psychiatrist. I was prescribed medication, which I did not take consistently because of what I had been told about it—that they made you feel numb, that they gave you artificial happiness, or that if you took them, you were weak. Depression, I was told, was a characteristic weakness. It meant I had low emotional intelligence, that I was too negative, and that I wasn't strong enough to handle my own emotions. The only people who encouraged me to take my medication were my English teachers. I still remember what my eleventh-grade English teacher told me, when I left her class crying one day: that I needed to take the medication because it was there to help, but the rest would be up to me.

It is my hope, in writing these articles, that people with chronic mental illness will be able to relate or learn from my faults—or at the very least feel less alone.

a subpar cat

You are never alone. If you are ever in a crisis, please contact:

Health Services: 519-888-4096
Mobile Crisis Team: 519-744-1813
Distress Line: 519-745-1166

Important Winter Tip: Be a Penguin

Now that the coldest month of winter has hopefully passed, death by hypothermia has been replaced by a new worry: ice (ice baby). I'm sure you've all noticed how treacherous the sidewalks have become. Fear not! When I find myself in times of trouble, Reddit comes to me, speaking words of wisdom: "Avoid slipping on ice by walking like a penguin!"

Okay, so Reddit might not be a very reliable source, and this might not be the most dignified way to make sure all your bones remain intact, but! There is SCIENCE (somehow involved)! Basically, you should square your shoulders and take tiny steps; think about how penguins walk, and copy that adorable little shuffle they do. The science behind this involves something about shifting your center-of-gravity over your front foot, but who cares about that when you can walk like the most awesome bird on Earth? If you're still skeptical about my source, the University of Prince Edward Island and Yale University have both endorsed this tip, so it must be legit.

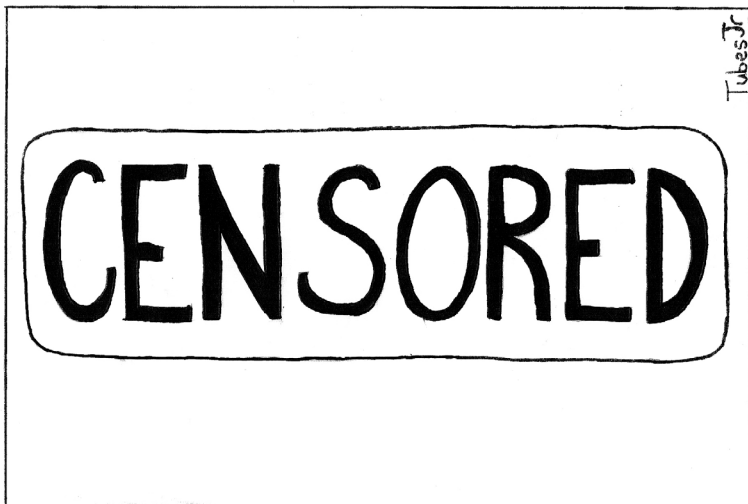
Next time you find yourself staring down an icy street, remember to be one with the penguins! Don't worry about how dumb you think you look—you'll look even dumber if you fall flat on your ass.

Disclaimer: *mathNEWS* is in no way responsible for any injuries incurred while following our advice. It's not our fault your balance is terrible, and we don't get enough funding to fight personal injury lawsuits. This article is mainly an excuse for me to write about penguins anyway.

xoxo

Monty Python in Python – The Tale of Sir Galahad

This scene has been deemed too inappropriate to be published. I apologize for any inconvenience this may cause.



Sarcasm Dominant Gene, Scientists Fear Future

There has been updated news on the study of genetics: sarcasm is in fact, a dominant gene. Through multiple studies and tests done by the scientific community, recent research shows that the descendants of sarcastic people tend to also be sarcastic.

Many people are now afraid that sarcasm is slowly spreading around the nation, leading to an increase of sarcastic people as the new generation of children are born.

There had been much discussion before about possibility of sarcasm being genetic. There were many sides to the argument against sarcastic people, some saying that they were sarcastic by choice, others claiming that you have no control over sarcasm.

Over the past decades, sarcastic people were receiving abuse from those who seemed to lack the ability to detect sarcasm. At first, scientists and people alike believed that detecting sarcasm and being sarcastic were mutually exclusive. However, further studies show that those who could not detect sarcasm could not actually be sarcastic.

"This study is so great, now people will stop shaming me," said Alan Poe, possessor of the sarcastic gene, "Now people can finally say it's genetics, and I have no control over it whatsoever."

Scientists fear that in the next 100 years, nearly 90% of the population will have the sarcastic gene. The government has issued a state of warning, claiming this to be a national crisis. Currently there are steps to prevent sarcastic people from producing offspring with none sarcastic people in order to keep people pure.

John Smith, *mathNEWS* Reporter
The Alley

A dark alley lies ahead, how long I have been already traveling, I am unsure. Looking back and ahead is equally gray and dim. Deciding which way to walk. Back? Forward? Maybe I have turned around before... Which way is which? I would rather not be here at all. I have a lot of homework to do, actually. Can I leave, please?

I have lost count of how many days it has been. I do not know how I got here. Nothing exists but this tunnel. Or was it an alleyway? There is no sky above so it must have always been a tunnel. So where is this dim light coming from?

I was born on this path in this cave. No, I was not born, there is and always was just me. I am the cave. I am the moist walls and dirt floor. I think I am done with this. This meager existence. Somehow, despite never being anywhere else, I know there exist others somewhere that isn't this cave. I see no way out, no way, no light in here. No smell or sound other than my footsteps.

EVERYTHING IS AWESOME!!!!

EVERYTHING IS AWESOME!!! EVERYTHING IS COOL WHEN YOU'RE PART OF A TEAM! Everything is awesome! Like... pies and kittens and Darth Vader and Twilight Sparkle! And dinosaurs and rockets and ice cream and nuclear fusion and rainbows! And me! And youuuuuu! And pies! Dang, wait, did I say that already? Uh... and chocolate cake. And midterms! NO, WAIT! Those aren't awesome. Um...

**weeeooooo weeeooooo weeeooooo* WARNING. WARNING. Below-average happiness detected. Protocol 010012 dictates that the complete happiness of the students must be maintained at all times. Student #1304182, your level of happiness is insufficient. Failure to improve happiness levels will result in immediate discipline.*

Crap, gotta get it together. Crap. Uh... BEES. BEES ARE AWESOME! And butterflies. And milkshakes and helium and puppies and sunshine! And chaos theory! And algebra and statistics and my balding professor who failed me on that last midterm! Screw that class... uh, no! Not what I meant!

**weeeooooo weeeooooo weeeooooo* WARNING. WARNING. Student #1304182, your happiness level is insufficient. This is your final warning. Failure to improve happiness level by at least 4.8% in the next 60 seconds will result in immediate discipline.*

Oh no, think happy thoughts, think happy thoughts... KIT-TENS! COTTON CANDY! Uh... um... I'M HAPPY! REALLY HAPPY! Please! I want to be able to see my mom's face again... My dad would be so disappointed... NO, please, I DON'T WANT TO DISAPPEAR! I'm a human being! I'm happy! Look how happy I am! Cupcakes and teddy bears and radioactive spiders! Glitter glue! Uh... I'M HAPPY! I'M HAPPY I SWEAR! WHAT ARE YOU DOING, GET AWAY FROM ME!!!

**beep boop beep* Student #1304182 has been deemed defective and is being repurposed. Student #1304182, please follow the transporter quietly. Resistance is futile. All other students are advised to ignore the proceedings and continue their business. Please remember, your happiness is our priority. :)*

No... *sobs* ... I don't want to be repurposed... I don't want to be brainwashed... This wasn't what was supposed to happen... please...

EVERYTHING IS AWESOME WHEN WE'RE LIVING THE DREAM!

BlueberryMuffin



How to do PD homework

For this week's PD, I gotta write feedback as Sarah to her co-worker and friend Damien, because people are apparently disliking the fact that he eats lunch alone. The exercise is all about "formal" and "professional" tone and providing feedback constructively but without angering the person. This is my first draft:

Yo D,

You eating alone have somehow resulted in people not trusting you. Yeah I know, makes no fucking sense to me either. I don't even know what they're talking about half the time, saying things like "synergizing bandwidth and picking off low hanging fruits with minimal overhead" either (does that sound like innuendo to you too?), but it's all about putting up a show! At the end of the day, no one actually cares about what work you got done; it's what you appear to have done that counts. Just come sit with these idiots for a bit and it'll be all good.

My loins hunger for you,

Sarah

theSMURF

N Reasons I Will Never Be a Teacher

Whenever it becomes known that Waldo studies math, a common question arises: "So what will you do? Teach?"

- I'm an awful planner and wouldn't be able to come up with so many lesson plans.
- If I don't have enough patience for PMATH 340, how can I expect to be patient with an entire room of youngin's?
- I'm afraid my own health will impact my potential students.
- I'm likely going to be a terrible influence.
- I don't feel I'll be responsible enough.
- There are too many teachers right now and I will contribute nothing to an already over-saturated field.
- I don't want to spend another few years getting certified in something I do not currently have any passion in nor expect to develop a passion in any time soon.

waldo@<3.LE-GASP.ca

Follow us:
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or in person (MC 3030)!

Leave Your Mark On the World by Peeing On Things!

*In all my life I'm never gladder,
than when I relieve my bladder.*

One of the defining qualities of living organisms is homeostasis, or maintaining a constant internal state. We eat things to provide energy, but this (along with everything else about our metabolism) produces waste byproducts, which we want to get rid of. As living systems, we want to minimize our internal entropy, and to do this we export entropy — or waste — to the rest of the world. In other words, because we are alive, we pee on things. Thus, the pleasant rush of urine leaving your bladder is a bold and courageous statement, calling out to the world, "I am alive!"

In fact, peeing on things means leaving your mark on the world in more ways than one. Urine contains not just water, salt, urea, and ammonia, but also small amounts of broken-down proteins, and maybe even the DNA of a few cells if you're lucky. Every time you pee, you're leaving your unique signature behind. Of course, in our society, we normally flush it away immediately, in yet another tragic installment of our disposable, individuality-suppressing culture. But it's there for a moment.

In conclusion, if you're ever feeling down or depressed at your place in the world, like you've become meaningless in the face of this huge uncaring world, then a) please talk to somebody about it, you don't have to feel that way; and b) take solace in peeing. Rejoice in being alive! Leave your mark on the world!

In our next issue, we'll examine other ways of leaving your mark on the world, besides urination.

tesseract



MATHLEMORE

All Hail Helix

Our Helix
Who art in ITEM
Hallowed be thy name
Thy kingdom come
Thy will be done
In PC as in ITEM
Give us this day our daily struggle
An forgive us our "democracy" votes
As we forgive those who vote "democracy" against us
An lead us not over ledges
But delivery us from Eevee
For thine is the kingdom and the power
And the glory forever and forever

Now is not the time to use that.

Stubbs

N Things Done Over Reading Week

*Waldo found herself enjoying reading week despite
being on co-op and doing no ACTUAL reading.*

- Doing actual work, because co-op
- No school-related things, but then again, I haven't really been doing that for the past 2 months anyways
- Sleeping in (SLEEP OH GLORIOUS SLEEEEEEP)
- Watching various shows and videos online
- Spending time with my friends and family
- Indulging in art and spending time at the theatre
- Internet (especially tumblr)
- Watching the Olympics and all the controversies surrounding it
- Watching the hockey games (the women's gold medal game was the best in MY personal opinion, YOU GO LADIES!)

waldo@<3.LE-GASP.ca

C++ Column: String Literals

This issue, our topic is string literals. And this article will be pretty useless this time around, but I think it's interesting.

Let's take the following program, compile, and run it. What does it print?

```
#include <stdio>
int main()
{
    const char * foo = "Hello";
    if (foo == "Hello") {
        printf("Yes: %s matches\n", foo);
    } else {
        printf("No: %s does not match\n", foo);
    }
}
```

When I tried it with gcc and clang, I got "Yes: Hello matches".

Wait, what? Shouldn't we be using `strcmp` to compare strings? What magic is this? msvc prints "No: Hello does not match", so does that mean it's buggy?

Let's consult our friend, the C++ standard^[1]. Section 2.14.5 paragraph 8 says that a string literal has type `array of n const char` where `n` is the size of the string. Section 4.2 paragraph 1 says that the array can be converted to a pointer. So our program isn't comparing strings, it's comparing the pointers.

We need to consult one more paragraph in the standard to solve our puzzle. Section 2.14.5 paragraph 12 says that whether string literals are distinct is implementation-defined. In other words,

Have You Seen? (#1 – loadingreadyrun.com)

I don't know if you've noticed this or not, but there are lots of awesome and creative people doing awesome and creative things on the Internet. Sometimes, I get to discover the awesome and creative things in their infancy, allowing me the privilege of watching them grow and develop into themselves. Other times, I only learn of such works well after they are established. In these cases, there is often a large store of previous episodes, editions or updates to consume, great for binging. In this sporadic article series, I will talk about some of these things I've discovered, be they comics, writings, video series, musicians, or more. I will focus on content that has an already established following, but is not particularly popular, and notice, in my conversations, they are often still widely unknown.

This issue's choice is LoadingReadyRun. This comedy troupe, based out of Victoria, British Columbia, has been making Internet comedy videos since 2003, well before Youtube (though that is where they host most of their content now). Their longest running series has been a collection of weekly comedy sketches, released on Mondays, whose premises have little or no continuity with each other but are often based around common themes, like video games, video game culture, technology, pop culture, and current events. Nowadays, they are producing a wide va-

the compiler can choose to store the same strings in the same location, to save memory. So in our program, both gcc and clang store a single "Hello" string literal somewhere, set the `foo` pointer to that location's address, and then use that same string literal in the conditional. That's why the comparison returns true – the pointers are referring to the same location in memory.

Let's test this theory:

```
#include <stdio>
int main()
{
    const char * foo = "Hello";
    printf("%p\n", foo);
    printf("%p\n", &"Hello");
}
```

gcc and clang print the same address for both lines. msvc prints different values. This supports our hypothesis. (Of course, to be completely sure, we'd want to examine the assembly. I leave that as an exercise for the reader. [By the way, best excuse for "I'm too lazy to do it."])

Note that if you use the `/GF` flag^[2], msvc will eliminate the duplicate strings and work like gcc and clang did in our examples.

Next time, we'll look at one of the siblings of implementation-defined behaviour, which is unspecified behaviour.

notbob

[1] <http://isocpp.org/files/papers/N3797.pdf>

[2] <http://msdn.microsoft.com/en-us/library/s0s0asdt.aspx>

riety of weekly shows and podcasts, many of them themed or produced for specific audiences. This season, Season 11, will be the last season of weekly sketches. Affectionately referred to as the "YRR of LRR" (year of LRR, an acronym for Loading Ready Run), this season has been funded mostly by Kickstarter, and with the weekly sketches also comes a large variety of Lets Play's streamed through Twitch.tv.

LoadingReadyRun has also been brought in to produce series for outside organizations, such as Strip Search for Penny Arcade or Friday Nights for Wizards of the Coast, with varying degrees of creative control. Finally, this group is also the one responsible for the annual Desert Bus for Hope, a week-and-a-bit long fundraising effort for Child's Play Charity where the "worst video game ever" is played non-stop for as long as donations allow. In the past, when I've talked to people about LRR, and introduced them to the weekly videos, people have told me that they've never heard of the troupe but still recognize them from one of their many projects all across the web. Let me just say that, if you're one of those people and enjoyed anything the group has done, then you should check out the rest because it's all impressive. You can find a collection of most (if not all) of the troupe's videos and content at www.loadingreadyrun.com.

(define this (not cool))

Titanfall Beta Impressions

Titanfall has a lot of hype behind its upcoming release on March 11th. I played the beta quite extensively last week, and for the most part I really enjoyed the game. I do have a few issues with the game.

The biggest issue I have is the amount of content for the price tag. Now obviously the version of the game I played last week was a beta, and did not include the full amount of content that will be in the final release, and may have been several months old. However, there are recent rumors that the total number of maps for the retail version of the game will be 15. For a multi-player only game, I really don't think this is enough for the price tag. There were only 3 game modes available to play in the beta, and I do not have any information on whether there will be more in the final game.

Game modes, unless they change how you play a map, don't really add to the content of a multi-player game though, so I really don't think that a lot of modes will help Titanfall. To be honest, 2 of the 3 modes that were available in the beta were not terribly interesting and were pretty much standard modes. The one that was interesting was Last Titan Standing, which turned out to be a kind of deathmatch where sometimes you might get two lives, your titan's and your pilot's after ejecting, if you played smart. Both as a pilot and as a titan you could provide significant assistance to your team in order to sway the battle in your team's favour, and it was a great mode.

The control point mode, similar to Battlefield's conquest mode, is pretty standard but shifts the combat to PvP since combat is focused around the small area around control points. I say this because the mode I played the most was, the one they suggest you start off with—Attrition—and it has combat that isn't really focused on PvP. This mode is pretty much just a standard team deathmatch with a point system instead of just a kill count. There are only 6 enemy pilots, controlled by other human players, and a lot of NPC minions.

In Attrition, you get 4 points for killing an enemy pilot compared to the 1 point for a NPC minion, but the AI is pretty stupid, and you can use a pistol that can lock-on to multiple targets at once. Minions often will stand in groups of 2 – 4 and you can

easily just run around murdering NPCs to win the game. Each kill also knocks off time for your next titan spawn, but I found myself just dropping my titan in an area and setting it to guard mode while I continued to rack up points for my team. This strategy is a little more difficult to use in smaller maps since the pistol takes longer to lock-on to pilots and you will run into them more often. You will probably lose head-to-head battles against pilots with other weapons, however, since you can change your loadout every time you spawn and easily adjust to using a different strategy. This makes me think the combination of pilot and titan combat might not match up well on every map and every mode. Titans should be very useful in the bigger maps since there is less risk of a pilot mounting you and trying to destroy you, but so far I feel like the bigger maps just make you focus on killing NPCs in order to maximize your score and win. I did enjoy being the highest scorer on my team on the bigger maps, but I don't think that this game has any kind of eSports future.

The beta looked really polished in terms of gameplay and graphics, after I got it working properly. Beta is beta, and I did encounter a small technical issue with the game. Right now, my main gaming machine is a laptop, due to it being very portable, and I have a dedicated NVIDIA graphics processor as well as an internal graphics card for more power management options. Typically games automatically switch over to my dedicated graphics card for the additional power it provides; however, the Titanfall beta failed to do this. This caused the game to display incorrectly and made it pretty much unplayable, but it was easily fixed by changing settings in the NVIDIA control panel. This does seem like an oversight by the developers, which I hope they fixed for the release version. At least it wasn't hard for me to fix. I will definitely be testing to see if they did fix this issue when the game is released.

I definitely had a lot of fun with the beta, more than I've had in a while with shooters. Maybe I had so much fun because I dominated in Attrition mode using a strategy that requires little skill, but I don't care because I was having fun. I can definitely say that I am looking forward to the release of Titanfall, something I didn't think I would be saying before I played the beta.

AddictedGmr

Why Sledding is Bad

Every four years the Winter Olympics give a spotlight to the sports of luge, skeleton, and bobsled. And sure, these activities look like a lot of fun. Though once you start getting involved in tobogganing, it's a slippery slope into enjoying winter. We all know that winter is a wretched season and it would be absolutely tragic if people for a moment stopped complaining about the cold to do something fun. While there are no bobsled tracks around Kitchener-Waterloo, all it takes is a crazy carpet, which can be bought at Canadian Tire for under \$5, and some snow for people to enjoy the weather. Remember, once they start tobogganing, it's all downhill from there.

Beyond Meta

Henry the Platypus

In the beginning... (No, that's a crappy way to start a story.)

Once upon a time there was a little platypus named Henry. He was a happy little platypus until one day, he realized there was something missing from his life. So he went out into the world and found himself a fuzzy pillow. And then all was well in the world and he was happy once again. The end.

The moral of this story is: the world is made infinitely better by fuzzy.

Stubbs

horrorSCOPES

Jobs, jobs, jobs!

ActSci: Tired of the boring desk jobs that you're normally assigned, you apply for something exciting. You see a listing for an active job with "life-and-death decisions!" *Your unlucky number is:* 17 weeks as a door-to-door life insurance salesperson.

AHS: You get placed at a job in the first round! You're not sure what your actual position title is, but the description says that you'll be at the gorilla exhibit facing visitors, and you'll be given free room and board. *Your unlucky number is:* 72 bananas in your pen.

AMATH: Oscillating between two potential jobs, you try to find some equilibrium by figuring out what you should do. You accept one, but periodically do work for the other job as well. *Your unlucky number is:* 2 jobs lost due to ignoring non-competition agreements.

ARCH: You want to build up your résumé and show that you have a concrete foundation in your education. Your qualifications tower above those of your classmates, completely flooring the interviewer. *Your unlucky number is:* 4 bad puns.

ARTS: You've been volunteering all term long, and now you finally have relevant experience to put on your resume! So long, another summer at Starbucks! *Your unlucky number is:* 12 hour shifts at Second Cup.

C&O: You've landed the dream job: researching alongside your favourite professor. Unfortunately, it turns out that your prof is a real arse outside of class. You get appointed "official board wiper". *Your unlucky number is:* 3 days in the hospital due to chalk inhalation.

CS: Overwhelmed by the flood of job offers from all of the biggest tech companies, you suffer a nervous breakdown. When you come to, all of the positions have been filled, except for one. *Your unlucky number is:* \$12.89/hr at a government job.

CM: You get a job monitoring the movement of the ocean floor. Computing through the numbers that the sensors pick up, you see a disturbing trend. None of your coworkers believe that Cthulu is about to rise. *Your unlucky number is:* 7 billion lives lost. They r'lyeh should have listened.

Double Degree: Due to an administrative error, UW has you registered as a Laurier student, and Laurier as a UW student. As a result you are locked out of both Jobmine and Loris. *Your unlucky number is:* 300 hours searching on Kijiji.

ENG: You're faced with a rather unique situation: there are too many jobs to apply for, but only 50 applications available. You decide to just randomly apply to 50 of the 1048 jobs. *Your unlucky number is:* 53 hours a week working in someone's basement startup.

ENV: You got a job working at a mining company. On your first day you're handed a bright yellow uniform and told that you'll be the first down the shaft every morning, and the last up. It's a coal mine. *Your unlucky number is:* 5 minutes before asphyxiation.

General Math: You try to apply for a job, but you find that you have to make a petition to even put a job on your shortlist. The next petition meeting isn't for two weeks. *Your unlucky number is:* 14 days until disappointment.

Grad: You expect to get significantly higher salary offers because of your graduate degree. As you see the numbers coming in, you realize that it would have been more profitable long-term to get a job straight out of undergrad. *Your unlucky number is:* \$5000 salary difference.

KI: Curating the museum, you find an object that you've never seen before. You bring it up with your supervisor, but he assures you that it's always been there and that you've been working too hard. You turn around to see men in suits. *Your unlucky number is:* 12 weeks mysteriously vanished.

Math Phys: Congratulations, you've landed a job at the Chalk River nuclear facility! Unfortunately, you weren't paying attention during your orientation and pushed the big red button. *Your unlucky number is:* 40 trillion becquerels of leaking radioactive materials.

PMATH: Like your field, any chances of finding a job not occupied by a grad student are purely theoretical. *Your unlucky number is:* 3rd year of mowing lawns all summer.

SCI: Spending all day in the lab, you've forgotten what sunlight feels like. You get blinded by the light as you make your way to Tatham Centre for an interview, and stumble into Ring Road. *Your unlucky number is:* 8 broken vertebrae and a missed interview.

Soft Eng: You've been working so hard on your FYDP that you've completely forgotten to apply for jobs. You're given the dubious honor of being the first unemployed softie after graduation. *Your unlucky number is:* \$7.4k of unpaid debt.

Stats: After applying to a bunch of data mining jobs, you decide to practice for your interviews by mining your Facebook friends. After enough analysis, you realize that your best friend has been hooking up with your boyfriend. *Your unlucky number is:* -2 friends.

Teaching Option: You're placed as a high school summer school instructor, teaching the kids who failed Grade 9 math. After a few weeks with them, you begin to understand why they failed, and accept their offers of cigarettes. *Your unlucky number is:* 6th stage lung cancer.

profQUOTES

“You don’t look nearly as impressed enough [at this solution].”
Purbhoo, MATH 249

“If you are still not impressed with this solution, you may leave the room. There’s something wrong with you.”
Purbhoo, MATH 249

“[If the basis was not the standard basis], we’d have to calculate the coefficients, but that’s not the end of the world... Can you imagine if the world actually ended if you had to do that?”
Marcoux, MATH 146

“We should be intimidating, not intimidated.”
Marcoux, MATH 146

“The effect of putting on your socks and then your shoes is different from putting on your shoes and then your socks, and that’s all thanks to matrices.”
Marcoux, MATH 146

“When you’re stuck in crypto, you just assume what you want. So, we’ll just assume that the RSA problem is hard.”
Menezes, CO 487

[After spending 15 minutes on logistic maps] “This obviously has nothing to do with the course, but it’s pretty neat.”
Scott, MATH 138

“If I was looking at a wristwatch and thought it looked like something a character would wear on Mad Men, I wouldn’t think about eating it.”
Carson, FINE 204

“So your finger, a piece of meat, touches the keyboard and sends the CPU one byte of information. After a million calculations, the CPU goes, ‘Oh here goes that piece of meat again’.”
Mann, CS 251

“You should backup your files in case your hard drive fails. The NSA does have your files, but you can’t ask them for a copy.”
Mann, CS 251

“I didn’t like to remark things so I spilled water on this guy’s midterm.”
Mann, CS 251

Cat Facts

- A group of cats is called a “clowder”
- When a cat died in ancient Egypt, all the people in its household would shave their eyebrows to show their loss
- Cats have 32 muscles in each ear
- Cats have elastic disks between their vertebrae to cushion their landing when they jump
- Cat urine glows under UV light
- Cats normally have 18 toes, however polydactylism in which the cat has even more toes is common. The highest number of toes recorded on a cat is 27.

Student: In some theories, $[\supset]$ means “such that.”
Professor: Yeah, I don’t believe in those theories. That’s why I don’t teach logic classes.

Hare, PMATH 336

“You can’t postpone the proof all your life. There’s got to be a proof you stop postponing. That day is today.”
Zorzitto, PMATH 353

“I don’t think we give power series enough fear and respect.”
Zorzitto, PMATH 353

“I’ve looked at those proofs. They suck.”
Zorzitto, PMATH 353

“A connected set is like a blob of paint on the floor. You don’t get one blob over here, and another one over there, unless it’s blood.”
Zorzitto, PMATH 353

“This analytic function is like a peacock. It does a little folding thing.”
Zorzitto, PMATH 353.

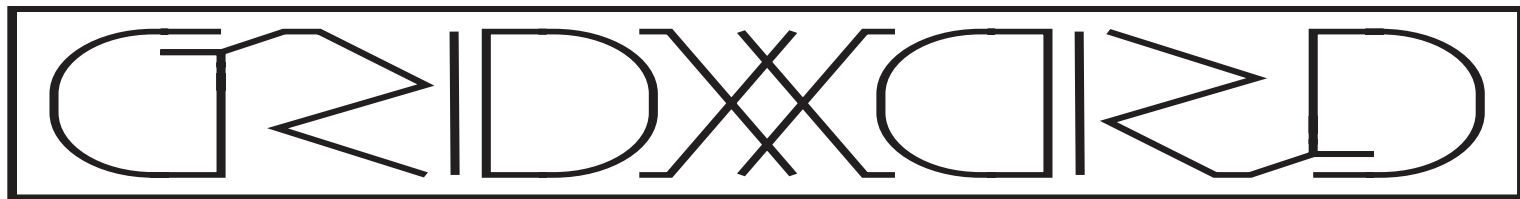
“This problem is just to wear out some ink in your pen.”
Zorzitto, PMATH 353

“It’s almost like quantum mechanics. Now I’m getting mystical.”
Zorzitto, PMATH 353

“Don’t write down what I say.”
Zorzitto, PMATH 353

Last Week's Solutions:

R	V	E		L	N	E	A	E	S		L	T	S
R	E	A	O	T	X	E		E	O	D	N	H	O
E	R	E		X	E	H		D	T	O		T	O
	A		X	V	L		T		V	R	O		W
S		X	O	T		S	I	L		T	F	O	
R	R	U	P		V	A	N	A	I	D		U	R
E	I	T		S	T	E	T	P	E	S		B	O
M	A		N	R	I	F		S	S	A	S		F
O		N	O	E	N		N		O	M	E	D	
N		A	I	N	A	M	O	H	P	M	L	N	
O		T	N	I	M		I		N	O	B	E	
R	T		O	D	A		L		U	M	A		S
L	V	E				L	V	D				T	F
S	E	N	I	T	N	E	T	V	L	L	P	P	V
V	L	O				F	E	R				O	O



gridWORD Clues

Across:

1. A ceremonial county
13. ___ Joy
14. Paddle
15. 2012 Beyoncé single
17. TV torment?
18. Indian ghosts
20. Lieutenant governor
21. Waylaid
24. Physical education
25. Records
26. "Information", informally
29. 1760 48Ds
30. Loiner's land
33. CFL centre Khan
35. Millimetre
37. Small sweet cake consisting largely of ground almonds
39. Tryingly
43. Turn it to tune out
44. 3rd person singular present indicative form of "be"
45. Mountain man
46. Derbeian's dominion
49. #
51. Cavern caller
52. Not wholly witted
54. Antimony
56. Thimble-shaped sweets
60. Hinds' husbands
64. Christopher, her majesty's voice
65. Babysitter's bother
67. Malaise
68. Local area network
69. Sandy springs
71. A ceremonial county

Down:

1. Ark guy
2. A parity
3. Return to a former port
4. Teletype tag
5. Pastime
6. Hair froth
7. Somerset city
8. Irish
9. Little "little"
10. Play part
11. Annoy
12. Piece of rain
16. Anagram of "evenly" (also a name)
19. Boat bottom
22. Memory aid
23. 70s genre
25. Stale "food"?
27. Boat beginning
28. Ancient silver coin
31. Arabic commander (var.)
32. German neuter definite article
34. Puerile
36. Sloppy soil
38. French friend
40. Of passage, e.g.
41. Call someone a pup
42. Caustic soda
43. Percy Shelley's middle name
47. Ominous
48. Horizontal spar
50. Home of several saints
53. "Photos", informally
55. (Legal) bench
57. Jamaican citrus
58. Honey-wine
59. ___ dixit
61. Viral genome
62. Small stomach
63. A bro or a sis
66. Sea, to Sylvestre
70. Expression of understanding

This Week's Grid:

1	2	3	4	5		6	7	8		9	10	11	12	
13						14				15				16
17				18	19					20				
		21	22						23				24	
	25							26		27	28			
29					30		31	32			33		34	
				35	36		37			38				
	39	40			41	42								
43										44				
45					46			47	48		49	50		
		51						52		53				
54	55				56	57	58						59	
60		61	62	63		64						65	66	
67						68				69	70			
	71													

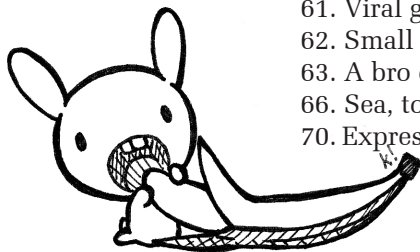
gridCOMMENTS

UK Locations

Only six British places made it in, but that's still enough for a theme, right?

Half of the six submissions were perfect—sorry Richard, Daniel, and Jeffrey. There was really only one good answer to last issue's *gridQUESTION*, which was "What is the point of love?": "cupid's arrow" by Jenn Hernes. Henry's answer ("somewhere around (0, 0, 0)") answered "where" and not "what", and Ramesh's answer ("The laws of physics can only spin the world so fast") missed, perhaps, the point's point. So congratulations, Jenn! You may pick up your prize at MathSoc.

Submit your grids to the **BLACK BOX** (by the Comfy Lounge on MC 3rd floor) by 18:30 on Monday March 10th. Include your name and your answer to this issue's *gridQUESTION*—the best answer decides the winner (of a \$5 C&D gift card) in the event of a tie: "What should next issue's *gridQUESTION* be?" The winning response will indeed be the next issue's question.



Send us your articles, *profQUOTES*, grid solutions, love letters, and puzzle solutions to mathnews@gmail.com. or submit them to the **BLACK BOX**

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