*look*AHEAD

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Your Hosts: Dr. Jekyll (Murphy Berzish), Mr. Hyde (Lenny Morayniss)

*mast*HEAD

This past Monday, *math*NEWS was called to some remote, obscure corner of campus known only as the Arts Quad to report on actual news. The news in question was a pre-release announcement of a new initiative at UWaterloo spearheaded by Economics professor Larry Smith. From the looks of things, there was an extremely heavy emphasis on wanting to show every student the way to become A STAR. Unfortunately, the reporter is brooding in a corner, so what follows is all we managed to extract from the notes he took:

• In its early days, UW was viewed as a "highly suspicious organization". Not much has changed since then.
• Why hire Waterloo? "Edge." Sharpening-of-the-mind metaphors really work!
• The quality of jobs is deteriorating to the point where there are only two options: really good jobs and really bad jobs. Clearly that gives us employees two choices: be a commodity or be a star, and the outlook for the commodity workers is, as the Magic 8-Ball says, "not so good". Objectification jokes aside, there's something legitimately depressing about this bit but we just can't put our finger on it…
• The master plan is…making a social network for STARS to share their experiences, collaborate and synergize, and live vicariously through user stories. We'll definitely seek to utilize our key synergies and leverage grass-roots value-added infomediaries to empower core values and assimilate non-volatile productivity! Don't forget to visit our robust executive help-desk on the information superhighway.

It is now our blatant, unabashed goal to use the rest of this column to make as many space jokes as possible while feigning to provide legitimate advice. Hopefully this will confuse absolutely everyone into just attending the thing on October 23. This can only turn out well. So, writers, what's your advice for helping students become "A STAR"?

tesseract ("Amass a lot of hydrogen. Begin fusion. ??? Profit.") Zethar ("Probably not by lying spreadeagle on the floor of a stone antechamber with your blood outside of your body.") Shay Blair ("Study astronomy and psychology until you finally understand the mindset of a star (preferably a blue dwarf). Then immerse yourself until your whole mind, body, and soul believes it.") moment ("Follow in the steps of other famous mathematicians, like Nash or Kaczynski.") Beyond Meta ("Shift-8") TubesJr ("Turn yourself into a bright, glowing mass of hydrogen and helium and float up into space.") Element118 ("hookers n blow") Stubbs ("Beans on toast is the best food in existence.") k! ("Nothing, because they are already STARS!!!") MeaninglessQuips ("Go back in time; we are all stardust.") unit ("Clump together.") MustardMap ("Set your entitled self on fire and think starry thoughts.") yourlocalWHETHERgirl ("learn the ways of fireflies stuck to the night sky") Davenport ("Start a cult-like fan club. Or just a cult.") ObjectED ("meth") psychomath ("Just quit now while you're ahead.") waldo@<3.LE-GASP.ca ("Find a starfish. Froshies, use Mimic! Waldo is unsure of the effectiveness.") himynameis ("join mathNEWS") !bar ("Release a sex tape.")

ScruffyED ("Perform a Kleene closure on yourself.")

Despicable Media Sez

Did you see those people with cameras running around math events? Were you encouraged to yell at them "[insert team name here] loves media"? Are you wondering what they did besides run around with cameras and receive love? Well, this is the article for you!

All the photos and videos we took during the week (well, no, not ALL of them… that would be 7684 files between the four of us *[She means 5 of us. I helped — ObjectED]*) were hand-selected from the masses of newly captured digital media and hopefully should be completely posted by Monday, September 23rd on the Math Orientation Facebook page (for photos, at `facebook.com/MathOrientation`) and on the Math Orientation YouTube account (for videos, at `youtube.com/user/mathfoc`). We all hope you enjoy the results of our hard work during the week, be you a new student, an orientation leader, or someone who wasn't involved with Math Orientation who wants to see pictures of police π-ing leaders' faces.

We haven't even given all of our photos to MathFOC yet.

yourlocalWHETHERgirl & waldo@<3.LE-GASP.ca

Failing in the Fall

This fall will see some changes to faculty policy that will affect you.

At the moment, and for every course you take until Sept 1, failed courses are not included in your average. In other words if you took 4 courses this spring and achieved 20, 40, 60 and 80, your average would be 70. However, if you achieved these same marks in the coming Fall term, your average would be 53. As of Sept 1, failed courses will be included in your average. Courses with grades less than 32 or grades of DNW, will be converted to a 32 in the average calculation. This brings the faculty into line with the other faculties.

Remember, this only affects courses that you take starting Sept 1. Any courses that you failed prior to Sept 1 will continue to be omitted from your average.

Additionally, should your cumulative average dip below 60%, you would currently be asked to leave the faculty. However, as of Sept 1 you will not be asked to leave the faculty.

Please note that plans (i.e. Actuarial Science, Applied Math etc) will continue to enforce their average requirements.

Should you have any questions, please direct them to an academic advisor. They may be contacted via `mathadvisors@uwaterloo.ca` or by dropping into MC4023.

Riley Metzger, `mathadvisors@uwaterloo.ca`

Feds Sez

Salutations Mathical Mathies,

What would you give up to have an extra couple of days around Thanksgiving as a sort of Reading Weekend? Informal discussions have been starting around councillors about this idea, based on what other faculties have been hearing from their students. Let us know what you think on our facebook page (`http://fb.me/FedsCouncilMath`).

The Federation of Students (Feds) Council met this past Sunday. We elected people to committees to oversee elections, clubs, and the President's portfolio. A new committee was created to address mental health and well-being on campus. If you're in first year, keep an eye out for elections for the First Year Advocacy Council — a chance for first year students to get involved in student government and make a difference on the issues you care about.

In the next few weeks, be sure to check out the many opportunities to get involved in many of the Feds services and clubs. There's also a session on how to start your own club, if you didn't find what you're looking for at the Clubs and Services Fair. It's on Monday, September 24th at 5PM in SLC 2105B.

We're hosting a meet & greet for all of your math reps (Feds Councillors, MathSoc, and Senators) on October 2nd 4:30PM in the Comfy. We'll be eagerly awaiting all of your complains about uWaterloo (and maybe a few things you like). Come say hi, share your ideas, and participate in the discussion.

Don't forget, every Wednesday is Bomber Wednesday, and Thursday nights are Trivia and Karaoke. This week's Bomber Wednesday is a special one — it's Tight and Bright! Wear your neon, so that you can glow under the black lights!

Why Fillers are Better than Actual Articles

We at *math*NEWS spend so much time writing actual articles, and only think about fillers when the editors suck too much to get everything to fit correctly. However, I have come to the conclusion that fillers are actually better than articles.

First of all, our articles are generally pretty crappy. Since fillers are shorter, they contain less crap, and even less content.

Secondly, fillers actually challenge us to come up with the best (or worst) stuff that we can come up with, since they are written on such a tight schedule, usually by people who have class in ~~5~~ ~~4~~ 3 minutes.

Finally, I don't have a final point.

Follow us on Facebook (MathNEWS), on Twitter (@UWmathnews), or in person (MC 3030)!

Warriors Band

The UW Warriors Band is looking for quasi-musical types to help add a somewhat off-key note or two to our sound. Our primary purpose is to have fun while promoting a healthy spirit amongst UW sports fans by playing at things like Quidditch games and Reunion. We encourage musical talent so if you can play an instrument (or even if you can't) this band is for you! We don't really end up in any life-threatening situations, but athletics makes us sign waivers anyway just in case you fall off the bleachers in the PAC.

Don't worry if you can't make every rehearsal or event, just come out and have some fun. If you can play the telephone, the shoehorn, or possibly even the saxophone or french horn, you're just the person we're seeking. If you're a sports fan, or simply enjoy playing vaguely familiar tunes at high speeds and even occasionally performing some real pieces with dynamics, key changes, and everything, come on out!

Our rehearsals are Thursdays from 17:30 – 19:00 in PAC 1001 (Blue South), no audition required, some instruments provided. We hope to see you there!

Meghan Green
Media Liason

Awesome PSA: 202 iXpress Route

The 202 is the bus that we always wanted. It is the bus that solves all our problems as students. And in combination with the changes to the other iXpress routes, we can now go everywhere we ever wanted to go. It's glorious.

The 200 now has a stop at Hagey and Columbia. This is awesome because it was needed. Now those living along Columbia have to walk less to catch the 31, 7 or 201.

The 201 no longer goes to Laurier. It now runs along Columbia to King then heads up to Conestoga mall. This is awesome because the bus no longer goes to Laurier. This will mean the bus is slightly less completely stuffed and be nicer to be on. This is also awesome because the McDonald's at King and Columbia is now really easy to get to.

The 202 is the new bus and it runs from the Boardwalk (University and Ira Needles) and runs up Ira Needles to Erb. Erb to Westmount. Westmount to University. Along University until it ends and then to Conestoga mall, including along Northfield. This was a needed bus because it means that so much more housing way to the south-west of the university is suddenly under 15 minutes away. This is a big deal. BIG.

The other awesome thing about the 202 is that for a lot students doing a co-op term at BlackBerry can now get to work. Some big BlackBerry buildings are at the corner of University and Northfield. Look at a map. This is ridiculously far away. And now a bus other than the 31 goes there.

And the final awesome thing is that all three iXpress routes end at Conestoga Mall and all will get you back to campus. So if you went to sushi as a group at one of the many excellent restaurants by the mall (there was an argument at *math*NEWS about the best but I will not get into it), you can now get home, wherever home may be.

This PSA was brought to you by Drunk Stubbs.

The Natural Log Conspiracy!

Long, long ago, there existed what was the symbol of the math society, The Natural Log. It was celebrated by all mathies around (records say). However one day it was stolen, and eventually it was found defaced and basically destroyed. Apparently it was found a few years after the initial kidnapping. A team (apparently one person) decided to repair the log, and put the MathSoc brand on it, thus re-birthing the The Natural Log. This occurred in 2010 (I was there for that!).

A decree was declared, from The Book of Stanton in *math*NEWS. A challenge had been issued for others to try and take the log. The log was covered in chains and cinder blocks placed around it. (It might have been smarter to actually chain the log to the cinder blocks, instead of draping the log in chains and just having cinder blocks.)

After a while, the challenge going unanswered, the team that restored to log decided to accelerate the process. They themselves proceeded to steal the log, and hunt for an unknown group they created in order to retrieve the log back. However, they somehow actually misplaced the log, not knowing where it was anymore, legitimately losing the log. After a fruitless search, it was decided the log was forever gone.

Three years later, the log was miraculously returned to Mathsoc. With generations of mathies not knowing of the log's existence, it was a wonder why the original people who restored the log decided it was a good idea to kidnap the log.

This is all rumours, and confirmed to be possibly untrue from the facts.

Accidental Accomplice

What is MEF?

TL;DR: MEF = Mathematics Endowment Fund

The time has come. One by one a litany of presenters walk in front of a room and nervously give a talk about why they and their cause should receive money. The denizens who are to make the decision stare intently at the presenters, or are leafing through the printed material absorbing the data; once the presenters are finished they are expelled from the room and the panel debates each groups' merits, slowly and carefully, until the final votes are made and the status of each proposal for the term – whether they flourish or perish – is set in stone. MEF is the den, the judge, the gatekeeper, as well as the hand, the angel, and the dragon; it is the Mathematics Endowment Fund.

The Mathematics Endowment Fund (MEF) is a completely legitimate university organization whose job is to safeguard and be the arcane watchers of this pile of money whose returns are reinvested in undergraduate mathematical education endeavours for the benefit of all the students who are still alive. Each term, all undergraduate math students are automatically charged with tuition a tax-deductible 10π ($31.42) which goes into a growing financial instrument whose proceeds each term are used to combat government educational cuts and outdated equipment to ensure all students here can get the best undergraduate education in mathematics. Furthermore, if such a measly sum is too much burden for you to bear even for such a mighty cause, you can request a refund by filling out the appropriate form on our website and following the instructions therein before September 27.

Remember that if you are passionate about some aspect of mathematics education which is lacking at the university,

there is MEF which has money that can probably help you and these grand schemes. Do not let the non-existence of the object of your educational passion deter you if all you must do is to convince a group of dragons that your cause is worthy. There is no harm in asking if MEF can support you or your group going to a conference or acquire some piece of equipment – the worst that would happen is getting rejected and wasting an evening of time. There will even be free food for presenters and funding council members.

If learning about these events and overall improving the education of other math students appeal to you, you can apply to the funding council for the term and join the ranks of such esteemed people whose major obligations are showing up to one meeting for the term and being fed. Please keep your eyes and ears peeled for notices to the call for people and do submit all the paperwork on time if you wish to be considered.

More information about MEF can be found on the MEF website (slightly outdated, but hopefully will be fixed soon) at `http://www.student.math.uwaterloo.ca/~mefcom/`. Feel free to email any questions, concerns, objections, and hat mail to `mefcom@uwaterloo.ca` (but not SPAM, since there is enough of that already), and if you insist on showing up in person, our office is located in M3 1004 during the office hours for the term, which can be found next to the door.

Have a great term!
MEF Director Fall 2013
Joshua Tsai

The Sweet and Sour of ELPE

Welcome to UW!

On or about Sept 23, the results of the Sept 4th ELPE test will be posted outside of MC4023. If you fail the ELPE, you will have to do one of 3 things:

1. Take an ELPE course. ENGL 109, 129R, 140R and ESL 102R are all acceptable provided the minimum grade you achieve is a 60.
2. Have a 50 minute ELPE review.
3. Take a 5 week tutorial.

For more information, please see `elpe.uwaterloo.ca`.

If you received a conditional pass, run, don't walk, to the ELPE office and ask for an appointment to review your test.

Believe it or not, the ability to write in English is a useful skill for mathies.

Proof by One Example: I had to write this article.

SOAR!
Riley Metzger, `mathadvisors@uwaterloo.ca`

Club That Really Likes Anime

Interested in anime? Play video and board games? Collect figures? Want to meet other anime fans? Then you should consider joining the Club That Really Likes Anime! We're a group of people that are interested in Japanese animation - we show anime on the big screen (it's better than hunched over the laptop at home, I swear!), as well as hold events like anime karaoke,

gaming nights, sushi lunches, a cosplay cafe, and others. There are a few people that play 3DS, PSP, PC and PS Vita games, and it's a great place to share your fandom interests, and meet new friends. Anime fans don't have be anti-social, so visit our site (`ctrl-a.org`), and join the mailing list for more info on our events.

Roller Coasters

Whenever my brother and I would go to theme parks we would rush to the biggest, baddest coasters first. We'd experience all the awesomeness then go to the others. What would happen though is after the first one, we were never as excited for the lesser coasters. We would become blasé about riding them.

So, terms feel like a lot like roller coasters.

We are now experiencing the beginning of the ride. We're all in our seats, strapped in and are being pulled up the initial hill with the god-awful clicking noise that accompanies it. By the time you're reading this, we're almost at the top of the first incline. Sure, a few assignments have been due already, but they were just tasters of course material, or review.

If you're anything like me, I get that horrid feeling of "What the hell did I just sign up for?" while being dragged up, up and up. Both the beginning of the roller coaster and term have the same effect. They fill me with fear and despair as I realize the sheer magnitude of what I'm in for.

Soon we'll experience the first drop of the roller coaster and this is where my analogy fails. For where on the ride we scream out of enjoyment, in the term I scream out of pure terror. Seriously, what was I drinking when I thought taking these classes was a good idea? (This is a serious question for Wolverine Panda). Why didn't anyone stop me? (Looking at you, Shay Blair). Why am I not wearing any trousers? (BitMun, please explain!).

So why am I screaming? Because I'm looking down from the top and seeing a mass of assignments and midterms and interviews and stress, lots and lots of stress. The equivalent in my analogy would be seeing lots of different tracks the coaster could follow. And this is a mad ride. Some of the tracks have jumps, some have traps and obstacles that are trying to get you, and other tracks are just unfinished.

But really, all these other tracks are just distractions. Right in the middle there is one that will see you successfully to the end of the ride. You can make it to the end of the term and you can get there safely with high grades. It may not be clear to you right now but classes are made to be passable. To quote my old roommate: "You got this."

At the beginning of your next term, hopefully you'll be all blasé about just another wild ride.

Stubbs

P.S. Perhaps quoting my old roommate was a mistake. He famously said, "I got this," then got a 27% on a CS midterm. Please study.

Porn Banned on Campus
University: "We're not jerking you around here"

MC – Taking cues from the British government's recent proposal to filter all pornographic content, the University of Waterloo has implemented their own firewall, preventing students from accessing any nude pictures, videos, audio, caricatures, and hentai on campus. Citing that students will now be able to focus in class without having access to their favourite creampie videos, the Student Success Office is expecting to see record-high exam marks in the next few weeks.

Don Jones, head of Waterloo IST, explains the process behind the endeavour: "We have a filter that monitors all incoming and outgoing internet traffic on campus. Our blacklist filter then blocks any pages that contain any of the flagged keywords. We compare all image and video content with our repository of selected pornographic works, hand curated by our Jobmine development team. If something shows up that's even remotely similar, we flag the image and send it to them for review."

The ban was implemented on Monday, but complaints from the Mathematics Faculty only started coming a few days ago. "Yeah, we had a hard time nailing them down," admits Jones. "Turns out that Mathies are into some really depraved shit. One member of our curating team can never look at a staple remover or squirrel the same way again."

Despite the filtering of pornographic content, students have found other means of getting off tension.

• Illicit maps have been anonymously distributed, highlighting hook-up spots for couples emerging from finals.
• The Registrar's office has reported that all art and modelling classes have filled up in record time.
• The CSC has rebranded itself as the CSC&C (Come See C**** & C****), for group enjoyment of offline images.
• CTRL-A has enjoyed a dramatic increase in turnout for their Friday Late Night showings.
• TA's have reported a significant uptick in X-rated doodles on submitted assignments.
• Savvy students in Arts & Business and Environment & Business have been offering flashes at 5$ a pop, double if the students pop.

Big Mak

The Construction Conspiracy

As you may be aware, there have been a number of construction sites popping up all over campus. Some people claim this is to add new buildings and improve existing ones. But how much can we really trust that claim? The evidence to the contrary is overwhelming, and Waterloo cannot afford to close its eyes to this ever present threat anymore.

The administration would have you believe that the biology buildings are being constructed upon to improve them. This is incorrect. They are actually constructing a giant pool that will be hidden by the building and reserved for the geese. The proof? I overheard a Tim's worker wondering if geese got cold when they're here in the winter.

They also say that Health Services was expanded to provide better service. But I clearly saw one of the workers tap each stone twice before laying it. This means that while they were expanding the building as a cover story, they were also conducting a secret ritual to raise Cthulhu.

Finally, the argument you cannot ignore, not if you value your continued existence. The worst coverup of them all. The construction you cannot see.

Everywhere, all around us. Any building you cannot see construction on is actually secretly under construction. The goal of this nefarious plot? To begin the attempt to modify butter that will cause Mathies to rule righteously.

Yours in truth,
Shay Blair.

Pokémon Drinking Game

Whether it's on your new Nintendo 2DS (whose idea was that, anyway?) or your old GameBoy Pocket, you can't help but telling your friends you have plans once in a while to stay at home and add to your 300 hours of Pokémon gameplay. With the near release of the new Pokémon games, take the chance to pull out your old Pokémon Blue, Yellow, Gold, anything before they added a fucking ice cream cone, and try this drinking game. Take a shot:

• Everytime you're battling an Abra and he teleports away
• Whenever you run into a Rattata (take 2 shots)
• For each Magikarp whenever a trainer thinks he can beat you with them (take a bonus shot if he uses 6 of them)
• Whenever Professor Oak tells you now is not the time to be riding your bike
• Take a shot, and fill your glass with your tears for our next shot whenever Whitney's Miltank uses Rollout and kills your Pokemon… fucking Miltank.
• Every time you restart your game after killing a legendary Pokemon
• Whenever you use Metronome and end up killing yourself

Latest NSA Leak Reveals Captured Data

Waterloo – In a stunning turn of events, *math*NEWS has received the latest packet of information directly from Edward Snowden. The NSA has put bugs in every culturally significant publication system in the world, and also in *math*NEWS and Fox News just for fun. The data leaked has painted these publications in a disturbing new light, showcasing the dark and twisted side of our illustrious editors.

We tried blackmailing the editors to prevent us from showing you this picture (which was allegedly sent from ObjectED to ScruffyED in a successful seduction attempt), but our demands for $15 dollars and three slices of pizza fell on deaf ears. We are sorry about the following picture.

!bar

N Ways to Spot a First Year

• They have their lanyard around their neck.
• They still have their orientation bracelet on.
• They wear their pink tie. Everywhere.
• They block the doorways between classes
• They walk so slowly around campus
• They walk too close to the geese and get honked at.
• Around the middle of term, they're carrying random objects for residence events.
• They have a completely lost look on their face.
• When they realize they are going the wrong way, they immediately take a 180 and start walking the opposite way heedless of traffic.

Yours in upper year-ness,
Shay Blair.

Nothing

~ Pinkie Pie

note: thank you for enjoying my work of contemporary poetry.

Game of Thrones Spoilers

There's this show/book I heard of recently. It sounds pretty cool. There's thrones and games and brutal repression and stuff. I mean, what could be better than brutal repression? The only problem is, I can't understand what's happening. I keep getting distracted by the naked guys and gals. And the feasts. So I found this guide on the interwebz, and it helped me a lot. It might help you too, as you try to talk to your desperately try to make some friends. Remember, all of this is 110% true.

Bran Stark, the adorable small boy who is ridiculously good at climbing, suffers a tragic fall. This is because he was trying to climb a wall while eating a bowl of bran flakes (since the Starks are too hardcore for sweet cereal), and the spoon catches in his eye, causing him to fall. His family's heirloom bowl is also destroyed in the incident.

The Red Wedding: There's this wedding, where the bride is colourblind and accidentally wears red instead of white. It's kind of a big deal for some reason.

Cersei Lannister: Like many people in this series, she is playing the game of thrones. She appears to be slightly deluded as to the rules of the game, but is so self-absorbed that she doesn't notice her own terrible failure. Also, she fails to notice that the Iron Throne was really made of plutonium, and gave her ovarian cancer. Her delusional personality caused her to name this cancer Joffrey. Nobody knows why.

Jon Snow: Killed for misspelling his own first name, just as his two-thirds brother Robb was.

Daenerys Targaryen: Lots of people want to have sex with her. However, she turns them all down, because she's only interested in dragons. <kinky>

Other people: They exist. But not for very long.

tesseract

Fandom-Addiction

You blink. Yet another 5 hours have passed you by. You suspect that maybe you are beginning to develop a serious problem. But that cannot be.

You've lost track of real life. You can't remember what year it is, or what planet you're on.

Nothing matters more than what Tom Hiddleston said last night on Conan, the way that Benedict Cumberbatch smiled in that clip on YouTube, and what David Tennant will be wearing two months from now in the 50th anniversary episode of Doctor Who.

You're fairly certain that you missed your shift at work, your lecture, and your grandparent's funeral. You wonder whether it is time to rejoin the real world.

But the world of fantasy and shipping are completely irresistible. Alas, you decide to crawl back into the online fandom world where everyone just *understands* you. You suspect you

have become a hopeless case, and that your story will end in inevitable institutionalization.

But the Doctor will save you.

Sherlock will figure it out.

No one will ever need to know you ship Cesare and Lucrezia Borgia.

And you're still as bad-ass as Daenerys Stormborn; Mother of Dragons.

And if the world turns its back on you, you will claim your place with Loki in dominion over the world.

`#returnsherselftotheworldofimagination #Ihate-`
`hashtags`

psychomath

No One Reads *math*NEWS

The title of this article may confuse you. You might be thinking, "Well, it's obviously not true, because I'm reading *math*NEWS right now." That is actually false. The truth is, you, dear reader — you don't exist. You are merely a figment of my imagination created for the convenience of being able to address someone in this article.

Now you're probably thinking, "Well, surely at least the editors read *math*NEWS. They exist; they published this issue." Well, if you saw the number of grammatical errors in my past articles, it would be obvious that they haven't. It's pretty bad. *[We do our*

best…but what do I know? I'm just a literary device. —ScruffyED]

Ah! You claim, "You must have at least read your own article." That's a silly idea. Why would I read my own article? I already know what's in it. I I lead a busy life and I don't have time to proof read it; that's the editors' job.

I'm just here for the pizza and cookies. They were delicious.

Beyond Meta

Russian Reviews: OpenTTD

Trains! Trucks! & Planes! Oh my!

While walking past the real-time (a.k.a. trains) lab, I noticed a paper posted on the window suggesting a game called *OpenTTD* to those who are tired of trains. Turns out, it is a game about trains. More specifically, it is a open-source version of *Transport Tycoon Deluxe*, an old game sharing the mechanics of the other 'Tycoon' games (such as the popular *Roller Coaster Tycoon*). You are the head of a transportation company, responsible with transporting goods (wood, ore, wheat, passengers, etc) all across a region of many cities and industries. At your disposal are fleets of trucks, buses, trains, planes, helicopters, and ships, which have the advantages/disadvantages you would expect.

This is a fun and free little game that is sure to be enjoyed by those who like building (especially building efficient systems). Find it at openttd.org . Also, a warning: there is no tutorial, and the small amount of in-game help is poor. Visit the *OpenTTD* wiki for some valuable information (especially on how train signals work).

Soviet Canadian

The End is Near

*COMING SOON to a math*NEWS *near U…*
Waterloo.

It's a bird. It's a plane — NO! — It's a bird!

> Actually, it's a only a goose.

What? ONLY A GOOSE? Those things are dangerous! You see one, you see them ALL…

> Seriously, are you kidding me?

Are you from Laurier? Look, I'm serious. Beware of the geese, they are fearsome creatures with soulless black eyes.

> What if there was a zombie goose apocalypse?

Then we're all doomed… Even in the shelter of the indestructible MC building.

> We could always drink our fears away.

If only…

——-
*The Zombie Geese Apocalypse is coming soon to math*NEWS.

fig 1. knapsack problem variations

This Just In:

*math*NEWS has reason to believe that MathSoc President Stéphane Hamade has been replaced with a skinhead clone. The only other possibility, that his pink hair filled him with shame, has been deemed preposterous by this editor. More news as his hair grows back.

ObjectED

INTEGRATION BY PARTS

$$\int u\, dv = uv - \int v\, du$$

INTEGRATION BY DARTS

$2x$ x^3 $\cos x$ 4 e^x x^2+3 $\ln x$ $\sin\frac{1}{x}$

INTEGRATION BY SHARKS

BLUBdblub

INTEGRATION BY HEARTS

Hey baby, wanna integrate my natural log?

INTEGRATION BY FARTS

$$\int 4x\sin x\, dx$$
$$= 4\sin x - 4x\cos x + C$$

INTEGRATION BY THE FORCE

$\int$ x 2 8 x^3 dx $\sin x$ 7

I HAVE A SPINNY

I HAVE A SPINNY CHAIR!

I HAVE A SPINNY CHAIR!!

I HAVE A SPINNY CHAIR!!!

I HAVE A SPINNY CHAIR!!!!

I HAVE A SPINNY CHAIR!!!!!

OH MY FUCKING GOD, I HAVE A SPINNY CHAIR!!!!!!

Stubbs' Alter Ego

Brain Pleasers
Guaranteed to leave you second-guessing!

Each of the brainteasers below is a new take on an old classic, with an additional restriction that forbids the traditional answer to the question. See how many of them you can answer immediately.

1. A man wants to walk across a rickety bridge with a weight limit of 200 pounds, but he weighs 190 pounds and needs to carry three five-pin bowling balls over, each of which weighs 5 pounds. How can he carry them across without juggling them, which could be potentially dangerous?

2. How can you connect 9 dots with only 4 lines so that every line ends on two dots, and you never take the pen off the page between lines?

3. A woman wearing entirely black, non-reflective clothing crosses a street on an overcast, moonless night (it's not daytime) where all electricity and lighting is off, and is approached by a car with two broken headlights, but they don't crash. How could the collision have been avoided?

4. The one who makes it, doesn't need it. The one who buys it, doesn't use it. The one who uses it (and is alive), doesn't know he's using it. And the one who thinks everyone is using it is branded as crazy. What is it?

5. Two boxes contain 50 beads each, 25 black and 25 white. How can you arrange the beads so that each box still contains 50 beads, and if you close your eyes, pick a box, shake the box up, and pick one bead randomly from the box without looking, you will maximize your chances of getting a white bead?

With love,
Ender Dragon

Beyond the Outer Reach of the University: Part 1

It was thursday, there I was sitting in my room mindlessly web surfing. Looking for some decent form of procrastination to avoid doing that calc assignment. All I could find was mindless drivel. I yelled at the screen, posted a disgruntled rant, but no matter what I shouted the content did not get any better. Frustrated I decided to step outside. I immediately regretted this decision as I was viciously chased by a flock of geese. Naturally like any self-respecting person I ran screaming like a little girl. I ran for so long that I no longer recognized my surroundings. There were deer, peacocks, chickens and alpacas though thankfully they were all in nice little enclosures. They would not be attacking me unfortunately the same could not be said about the ducks and swans. Somehow in my erratic fleeing I had zipped through the uptown and found myself in front of a quaint building with yellow bricks. It was called the button factory. I heard some noise from upstairs curious I stepped into the building and stumbled an Improv Comedy Show. Welcome to Theatre On the Edge

Galactic Hitchhiker # 42

Fun Fact of the Fortnight

(Since making things up is more fun than the truth)

It's commonly believed that the expression "Any port in a storm." originates at sea. Faced with an impending storm, a ship captain would know that he needed to seek shelter at any cost, as the ship likely would not survive a violent storm. In such a case, the captain would moor anywhere he could, even a hostile port, because that's still better than losing your ship and drowning in a storm.

However, the truth actually originates much closer to home. It is a little known fact that the chemicals in port, a form of aged wine, react with ozone to produce a distinct and immensely enjoyable taste, highly sought after by connoisseurs. Before the development of modern chemical processes, this was naturally poorly understood. What was understood, however, was how the flavour of port would significantly improve in a lightning storm. Today, we know that this is due to the ozone produced by lightning, and have the ability to replicate it on demand. However, at the time, this was the only known way to experience the flavour. As a result, the advice given was that, during a storm, you should always drink port, even cheap, tasteless port. Hence "Any port in a storm."

Algoweird

Once in a Summer

Once in a summer, I actually stopped, and thought about the past. By think, I mean think very hard, like you would on an important exam. That summer was this summer.

I'm a simple student from outside of Canada. I came to this foreign land to study, and to do well in my studies. There was a strong sense of responsibility in me. There was pressure too. Actually, there still is, but now with something else as well.

First year went quite successfully for me. If you asked me (the person I am now) to say something to my First Year self, I wouldn't. Instead, I would say something to her.

Outside of the class, I saw her every now and then. We make eye contact when we see each other. She is beautiful and pretty. Those adjectives mean the same thing, because regretfully that is all I know about her.

This is my story from first year. It is a small story among many stories, of many others, which happened at Waterloo. I hope it won't be yours. Thank you for reading.

204abcde

I Have a Normal Chair

Fuck you Stubbs' Alter Ego.

I hate you and your spinny chair.

Stubbs

A Guide to Wines and Social Survival

Not sponsored by LCBO, anyone or anything.

You're in this posh party with people you don't really know. Old folks drinking old wines. Old girls and their gossips. Wait! What are you, math student, doing here? You don't know… It doesn't matter now anyway. Try your best to make some new friends. Wine appears to be a popular conversation topic here. Oh, you don't know anything about wines? Worry not! I'm here to help you. I am a fine connoisseur in wines and liquors… I promise. Now go get that glass of red wine and approach that elderly man over there.

The Colour

As you converse with your new friends, take repeated looks at your glass to redirect the focus of the conversation on your wine. You really don't want to talk about your achievements and life objectives. Start by observing the colour of your wine. As a rule of thumb, red wines are red and white wines are clear. Careful! For some reasons, white wines are not really white. It's very complicated so please don't ask why. Now, look at the hue of the colour. In general, darker reds are the signature of great red wines since more red means more flavour. Don't go for that light red wine. It's too soft for you. As for white wines, the clearest ones should be the noblest ones. It's no surprise that Jesus used water to create his wine.

The Smell

Now that you have your audience's attention, amaze them even more by showing off your knowledge in aromas. Confidently bring your glass near your nose, but do it slowly — you don't want to ruin the moment. Actually, the cold, hard truth is that every wine smells the same. Wines are made of grapes so they must smell like grapes. I mean… what else can they smell like? Potatoes? However, you must not let that reality spoil your night. Instead, try using fancy words like "fruity", "robust", "delicate" or "vibrant" to describe the aroma. Be creative and make sophisticated combinations. Use impressive words and you'll look impressive! Easy-peasy.

The Taste

It's the big moment! Take a sip and swish the liquid around. Don't forget to close your eyes for the dramatic effect. My best guess would be that it tastes like alcohol. Which alcohol? I don't know! Ask your friends in Chemistry! Wait. Try to improvise for a few moments while I take a look at my notes. What?! You got busted? They're accusing you of being a phony? They're forming a mob? I think… I can't…Really…Help…You. To be completely honest, my wine knowledge is not that extensive. Anyway… uhm…Good Luck!!

Wino

Design Project Ideas Too Awesome for the School

Being the dirty half-engineer I am (SoftEng), I have this fourth year design project thing coming up. For the uninitiated, engineers in their 3rd and 4th year are required to work on a huge project that spans two years. It is essentially a start up, with a customer, commercialization and the whole shebang.

This year is the initial planning phase where we come up with the ideas and try to get a sponsor and customer. Being the amazing person I am, I have come up with some of the best ideas. Sadly, due to "laws", "morals" and other bullshit, the school rejected all of them. I share them here in the hopes that one of you readers would want one of these project built, and thus make my dream come true.

Geese Hunter

I see plenty of complaints about the geese in Waterloo, and nothing to solve the problem… until now. Here is the basic idea: take an RC fighter jet, stick a camera and a M60 on it, write some tracking software for it, and send it off. The jet will fly around both the main campus and research park, tracking geese movement and eliminating them in a glorious display of modern technology.

MLS Matcher

After talking to some very nice gentlemen in a nice, dim alley, it was brought to my attention that a lot of businessmen have a similar problem. They make a huge amount of money from their product, but all of it is in cash that they aren't allowed to spend because something something tax government (I sorta zoned during this). Nevertheless, they wanted a safe and easy way to find people to "launder" their money (why would they do that? It'll just get wet. I'm so confused). Either way, this got me thinking: what if I created a website that matched businessmen with laundering services? And that's how I got the idea for Money Laundering Service Matcher.

Report Writer

At some point in their lives, most people need to write stupid reports for stupid things that are never actually going to be read, and it sucks. Thus, I think a software application that writes stupid reports will be useful for just about everyone.

Report Reader

Since no one reads those stupid reports anyways, why don't we also build software to read the reports? This way, we can actually sell both services to a corporation and get twice the amount of money!

Internet Face Stabber

This is exactly what you think it is. Everyone has had some moment in their life when they really really want to stab someone on the Internet in the face for their stupidity. The specifics are a little fuzzy but I'm sure we can get this working somehow.

If you would like to sponsor any of these projects please leave a message for me in the *math*NEWS **BLACK BOX.**

theSMURF

Intuition in Mathematatics

Some people think that math is nothing but cold logic, deriving statements from unwieldy counterintuitive axioms, all night long. There are several things wrong with this statement: first of all, logic has no concrete form, so it cannot have any temperature, either warm or cold; and second, math can be done at all hours of the day, not only in the night.

However, the more important flaw of this method of thinking is that it is completely wrong. It is broadly correct in that this is often the way mathematical statements are proven — a solid knowledge of axioms, theorems, and the rules of deduction is important. But it's not a good way of thinking, and is especially bad for coming up with things to prove (a.k.a. the interesting and relevant part of math) or suggestions of approaches to prove things. For when doing Real Math, there are no assignment questions, telling you what to prove in comprehensible chunks. Or the only way of proving something involves making some bizarre construction of a polynomial whose coefficients are Hitler's second cousins (mod 107). But visualizing things, and using metaphors, and contemplating weird edge cases (note the visual metaphor). So use your intuition to understand what's going on, and translate into math later.

TRANSLATION FOR PEOPLE WHO DON'T LIKE LONG WORDS

(tl;dr)

You can totally make math up. It'll be fine. Your profs do it all the time. (I'm not lying. Watch them.) You can even make up the spelling of "mathematatics", as in this article's title.

Tesseract

Greetings from Grad School!

… At the University of Victoria! Psych!

Right, so thanks to this wonderful over-the-Internet production system, I can write for *math*NEWS from my lovely basement suite in Oak Bay (well, Fairfield, but whatever). (Un)Fortunately, it's somewhat hard to get rid of me.

I believe that I will attempt to fufill two goals with these fortnightly updates. Goal 1: Enlighten the reader as to how graduate student life is, in general and here at UVic, and elaborate on silly events that take place. Goal 2: Talk about some cool mathematics! Whether or not either of these goals are actually reached is to be determined.

So, let's see. I guess I'll begin by briefly describing UVic's Math and Stats Department. Yes, contrary to what you're used to, here, we're just a department in the Faculty of Science. In fact, we're squeezed into two hallways stacked on top of each other in the Social Sciences and Mathematics Building. Wait, no, it's actually called the David Turpin Building now, and there are two separate wings, A and B, which aren't connected whatsoever. You have to go outside. Shocking. However, the B wing is probably some crazy dungeon featuring some sort of crazy… social science. Ahem. I haven't been there.

The faculty, staff, and fellow graduate students are awesome here. Some of them even have Waterloo connections! There's a member of Tie Guard from 2010 (bonus points if you remember him and can guess who it'd be), and a former CO major who did synchronized swimming, if I remember correctly. We run something called Tuesday Tea, where we drink tea and someone different provides snacks each week. I intend on turning the snacks into a department cookbook.

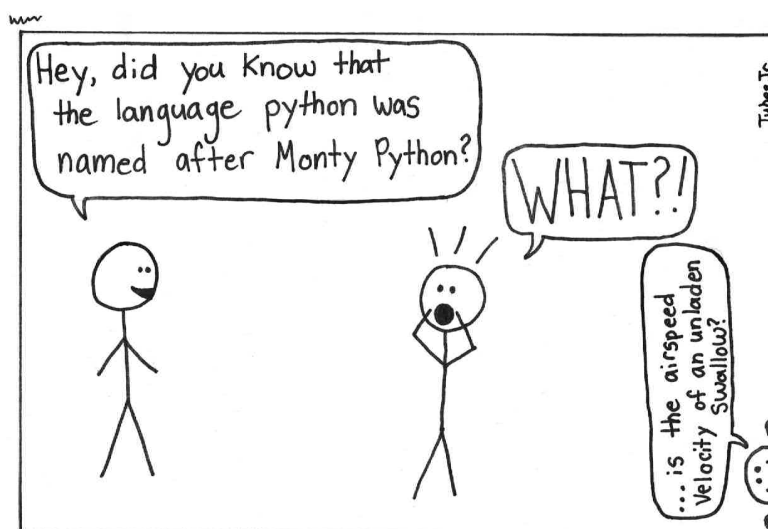See? Grad school doesn't sound so scary, now, does it?

Of course, some of the math I'm doing is pretty crazy, even just the introduction to it. My research involves something called ergodic theory. I'll give a brief setup, though it might be prudent to say something like *DISCLAIMER: Pure Math Ahead!* Anyways. … Oh dear, um, lack of LaTeX might make this painful. Okay, screw it, words it is. Consider a measure space (X, B, m) together with a operator T on X, such that T preserves m, that is, $m(T^{-1}(A)) = m(A)$. Ow, my eyes. T is called ergodic (coming from the Greek for work and path, since Boltzmann was doing some weird statistical mechanics thing) if whenever A is a T-invariant set, ie. $T^{-1}(A) = A$, then $m(A) = 0$ or $m(X \backslash A) = 0$. Note that this depends both on T and on m, so it's more correct to say that T and m are ergodic, but no matter. Essentially, this means that T-invariant sets are either very small or very large in proportion to the whole space. It turns out that if T is not ergodic and there is a T-invariant set A, then we can study m and T restricted to A and $X \backslash A$ separately without too much problem. Thus ergodic maps are like building blocks of transformations on measure spaces, kind of like how prime numbers are building blocks of the natural numbers, but only almost everywhere (ie. everywhere but on a set of measure 0).

I think it's cool, anyways. There are lots of cool properties of such maps; the Internet is a good source for stuff, as are textbooks. I'm studying out of Boyarsky and Góra's text, Laws of Chaos: Invariant Measures and Dynamical Systems in One Dimension. Note that "dynamical system" means different things when you consider different maps. There are smooth dynamical systems, like what we cover in AMath 451 (differential equations); topological dynamical systems, ie. a topological space X endowed with a homeomorphism h on X; discrete dynamical systems, like what I'm studying (measure-preserving maps on measure spaces), and others. Rather unfortunate, but sometimes they're connected. See "calculus of time scales" on the Internet, if you're interested.

Anyways, that's enough for now. I'll be back next fortnight with more stories and math! Hopefully I won't be tooooo bogged down. Cheers!

Scythe Marshall

Graph Theory Quiz

Should you be considering a C&O minor? Test your understanding of graph theory by solving these problems with real world applications.

1) Prove that the graph whose vertex set is the buildings of UW and whose edges are the tunnels and bridges between buildings is not connected. This result will be very pertinent come winter.

2) Prove that the complete bipartite graph with disjoint sets M (males of UW) and F (females of UW) has no perfect matching (and no perfect matches).

3) Prove that the problem of matching up all of the courses you want to take with the semesters they're offered in and the semesters you are in Waterloo is NP-hard.

4) Prove or disprove that the UW hookup graph is bipartite.

5) Calculate your UW friendship valency, that is, the number of friends you have at UW. If it is less than 3 you should join a club.

6) Show using the pigeonhole principle why one of your classmates is going to be very desperate at the start of the next co-op term.

Dusk Eagle

An Editor Abroad

Well, maybe just outside the GTA.

The joys of co-op have flung me to the farthest reaches of the world (ahem, Ontario) into vast and wild lands (Quebec). I was warned of the dangers awaiting me (mostly boredom) but I seem to have overcome most of these (by having a life). I actually really don't mind it here so far. I have been here two weeks and it hasn't even snowed! This is already better than my homeland (Alberta).

Although I'm working in Ottawa this term, I'm living on the Quebec side of the river. It's much cheaper to do so, and living anywhere in Hull is closer to downtown Ottawa than almost anywhere in suburban Ottawa. Living in Quebec is pretty neat. Everything is in French, even McDonald's, but everyone still speaks English anyway! I can buy booze pretty much everywhere; at the grocery store, the gas station, the daycares… Hell, there's a brewery two blocks away from house!

Ottawa is pretty sweet too. There are a crapton of museums, and you can visit the majority of them for free depending of the day and time. There are bike paths everywhere, and PEOPLE KNOW HOW TO USE THEM. It's wonderful. Parks everywhere. I walk about three hours a day because it's pretty and I can!

I leave you in the capable hands of ObjectED and ScruffyED for the term. Unfortunately, my means do not permit me to travel back and forth from Waterloo for every Production Night. Have a great term guys!

GingerbrED

Being at Home is Weird

After my exams finished last term, I went back home to the middle of small-town-nowhere for a few weeks before this term started. And being back home, I realized that being at home is significantly different from being in Waterloo, specifically in the Faculty of Mathematics. Here are some of the reasons why I found being home is incredibly weird:

• Instead of looking out your bedroom window and seeing cars and trucks drive by your house, you see tractors and people riding horses pass by your house.
• When you go out in public wearing a math joke shirt, people look at you as if they're confused and you're insane, and you never ever see anyone else wearing the same shirt as you.
• When you mention the word 'ring', people assume that you're talking about the kind of jewelry that a person wears on their finger, or the sound a telephone makes, as opposed to a mathematical object consisting of a set with addition and multiplication operations.
• Instead of walking five minutes down the road to buy groceries, you have to get in your car and drive for twenty minutes before reaching any kind of civilization.
• When someone is telling a story, and you say something like "Wow, that really happened?", no one responds by sarcastically saying, "No, that complexly happened!"
• Instead of being at home and surrounded by the people you live with, you find yourself being at home alone and talking to your cats out of loneliness and boredom.
• You find yourself wishing it was acceptable to go out and physically stalk people because due to a lack of Internet, you can't go on Facebook to stalk people and you miss being a stalker. [Disclaimer: I'm not actually a stalker.]
• When you eat pie, it doesn't have to be Pi Day, Pi Approximation Day, or the 314th day of the year. And no one even mentions the number 3.14159265358…

Sylvia MacIntyre

ObjectED after *math*NEWS production

Weight Loss
Or Gain

Any dietician will tell you that deviating from your body's natural state is a difficult and effort intensive task. This means that skinny people have trouble being bulky, and large people have trouble being slim. First and foremost, I want you, the reader, to understand that I am not encouraging you to try and change from the way you are. Rather, I prefer that everyone embrace their natural genetics and accept themselves for who they are and how they look. What I aim to do is provide you with the tools and encouragement to help you achieve your weight-related goals and I merely hope that those goals are for the right reasons.

The first step is to set goals. Keep it simple, set yourself a goal weight and date. The date should be 1.5 times as many weeks as pounds. Odds are the lifestyle change required will be somewhat drastic and it would be a bad idea to give yourself a smaller timeframe.

The second step is to get the math down (this is *math*NEWS-after all). The basic equation is this: (Calories Eaten – Calories Burned)/3500 ~ pounds gained/lost. These numbers are difficult to precisely calculate but as long as you keep a steady difference (~500 calories) you will make steady progress towards your goals.

The third step is to accept that you are not perfect. You won't always eat healthy, the right foods, or the right amounts. In fact, it is virtually impossible on a budget. Do not make cheat days a habit but allow yourself one a week. Do not pig out or starve yourself because it is your cheat day, instead say it is okay that you ate what you did and that you will do better tomorrow.

The fourth and final step is to record your progress. In the famous words of every fitness instructor ever: "How do you know how you're doing if you don't know how you did?" Websites like caloriecount and myfitnesspal are excellent trackers and also have helpful communities with real professionals offering advice and support.

A couple tidbits of advice. Whether you are trying to gain or lose weight, you need to exercise to get it to stick. If you simply change the amount of food you eat, your body will adapt to use less, or you will develop a gut. Low carb diets will help you lose a lot of weight up front but as soon as you eat ANY carbs they will instantly develop into a gut and you will gain a lot of that weight back.

Happy changing,
Element 118

Exercise for Mathies

Are you ready to get strong? Or would you like to be able to stand in a stiff breeze without falling over? If so, the new invention "exercise" may be right for you! With a minimal time investment of negative minutes a day, you too can do it! From the simplest "take stairs two at a time" to the most complicated "4-day legs/chest split" routine, exercise can improve your personal well-being!

For the ones without the time or energy to do any sort of complicated routine, a simple way to add exercise is to start taking stairs two at a time. Another way is to do basic exercises such as squats or pushups while waiting for the bus (Bonus: this also keeps you warm in the winter!)

For those people who want to spend some time in the gym, but aren't particularly interested in anything too complicated, a good way is to learn some basic exercises from the trainers at the gym, then do them. For those that are completely new to weightlifting, for the first several months it will probably be largely irrelevant if you do the same workout three times a week — you will gain strength regardless. You will notice an increase in how much you have to eat, however. Not enough food means you won't get stronger.

For those who want to spend more time in the gym, there are a variety of more complex workouts available. A good starting point is to talk to a personal trainer, to develop something for your particular goals. This is especially relevant if you wish to participate in a specific sport.

For those people who want to spend all their free time in the gym…if you are a novice, this is a bad idea – overtraining is not readily apparent, but can be very hard to deal with. If you are not a novice, then there isn't much I can help you with. Good luck!

In any case, don't worry if you don't see the results you want right away. Physical training takes time, but pays off in the end with greater strength, increased confidence, and just generally being harder to kill. (In case of zombie apocalypse)

MeaninglessQuips

*horror*SCOPES

Lionized Edition

ActSci: You're asked to catch a lion. You're so engrossed crunching the numbers to find which one will be the easiest to capture that you fail to see one sneaking up behind you.
Your unlucky number is: 23 seconds to live.

AHS: You're asked to catch a lion. You get confused and show up the next day with a cougar. You probably shouldn't have gone to Phil's last night.
Your unlucky number is: 42 shots.

AMATH: You're asked to catch a lion. You treat this as a boundary value problem, with the Savannah as the domain. You solve within the confines of the cage as the boundary.
Your unlucky number is: $y''(x) + y'(x) = \text{lion}$

ARTS: You're asked to catch a lion. You bore it to sleep reciting *Paradise Lost*, and are then hospitalized for severe dehydration.
Your unlucky number is: 7800 lines of verse and 7 IV tubes of water.

BioInformatics: You are asked to catch a lion. You assemble the genome sequence for a lion. Now to manually get its sperm.
Your unlucky number is: 8 litres of soap afterwards.

C&O: You're asked to catch a lion. You enumerate through the set of all African animals until you get the result you want.
Your unlucky number is: $\Sigma(\text{lions})$

CM: You are asked to catch a lion. Like the lion, you are also an endagered species, so you join its pride instead. You become a new toy for the cubs.
Your unlucky numer is: 2 new playmates.

CS: You're asked to catch a lion. Try capture_beast(); Catch lion; return;
Your unlucky number is: 0x4ac3: Overflow error. Too many lions.

Double Degree: You're asked to catch a lion. You use the Golden Hawk as a distraction and sneak up on it in full armour.
Your unlucky number is: -2 mascots.

ENG: You're asked to catch a lion. You litter the African plains with various traps, and catch 3 elephants, 7 rhinos, and a litter of meerkats. The lion laughs at your failure.
Your unlucky number is: $25,000,000 fine for excessive poaching.

ENV: You're asked to catch a lion. You try to capture it using the most humane way possible: persistence hunting. You collapse in under an hour.
Your unlucky number is: 2,000,000 year-old hunting techniques are outdated for a reason.

FARM: You are asked to catch a lion. Going through the numbers, you conclude that catching a lion isn't worth the cost. You pay off the prof instead.
You unlucky number is: 8723 dollars of debt.

General Math: You're asked to catch a lion. Unfortunately, you're not allowed to use any of the advanced tools to get the task done.
Your unlucky number is: 7-inch pole and a pair of heavy gloves.

Grad: You're asked to catch a lion. Unfortunately, you're stuck at your desk until your supervisor signs the proper paperwork.
Your unlucky number is: 2 missing cover sheets.

KI: You are asked to catch a lion. Going by what you saw in class, you try to recruit a trio of scheming musical hyenas to get the job done for you. Like in the Disney movie, you get eaten.
Your unlucky number is: A meal for 3.

Math Bus: You're asked to catch a lion. You're too busy with your startup, so you hire an artsie to do it.
Your unlucky number is: 16 hours of productivity saved.

Math Phys: You're asked to catch a lion. You build a Hadron collider in the savannah, so that the resulting black hole will grab the lion. Africa is wiped off the map.
Your unlucky number is: 6 continents left.

PMATH: You're asked to catch a lion. You hypothesize that it's possible, but leave the proof as a problem for the reader.
Your unlucky number is: 5 hours of homework.

SCI: You're asked to catch a lion. You genetically modify a toucan to become the most efficient lion-hunter possible. Unfortunately, it's still a toucan.
Your unlucky number is: 14 remaining feathers and 3cc of blood at the scene.

Soft Eng: You're asked to catch a lion. Being in two faculties, you decide to go the extra mile. You return with a liger.
Your unlucky number is: 34 species left worldwide.

Stats: You're asked to catch a lion. You take a random sampling of various landmasses on earth, and extrapolate from your findings that on average there aren't any lions. You return empty-handed.
Your unlucky number is: $E(Y) = \mu = 0$ lions.

Teaching Option: You're asked to catch a lion. You use your students as bait.
Your unlucky number is: 12 missing limbs and 3 missing digits.

Undeclared: You're asked to catch a lion. You take the integral of a housecat.
Your unlucky number is: $d/dx(\text{Lion}) = \text{Kitty!}$

*prof*QUOTES

"I'm sitting there doing my homework, and suddenly I'm looking at porn."

Henry, CS 458

"What can the virus do? It could erase your hard drive, but that's just mean. Now if it encrypted your hard drive…"

Henry, CS 458

"Concurrency is like skydiving without a parachute or white water rafting without a raft."

Buhr, CS 343

"A prof said to me once 'Peter, the problem with you is that you don't know that words have meaning.'"

Buhr, CS 343

"*[During a lecture about exceptions]* This is the part where people want to throw things at me."

Buhr, CS 343

"One of the other profs said 'pics or it didn't happen' to my lesson plan for today, so I need a picture taker."

Purbhoo, CO 330

[pointing to a colander on head] "These things are good; they keep the important in."

Purbhoo, CO 330

"It took me several years to learn the difference between a and alpha."

Georgiu, CO 456

"Oscar Mienzer... No not Oscar Myer."

Jones, EARTH 359

"And he had his rock hammer on him because that's what geologists play with."

Jones, EARTH 359

"This is Canada. If you had a time machine and didn't do all the cool stuff like rob banks..."

Jones, EARTH 359

"Nature's a lot like grad students and professors, maybe undergrads too, it's naturally lazy."

Jones, EARTH 359

"Relatively to rocks, you're lucky you only have to deal with one type of pressure – need to achieve, rocks have to deal with two."

Endres, EARTH 260

I was looking for a buzzword which had the word "morph" inside of it.

Nelson, CO 446

I'm not sure what happens when you let the parts be empty, but it's certainly
not interesting.

Nelson, CO 446

I'm going to use the word 'subspaces', but be aware that I'm lying.

Nelson, CO 446

If there's guts, there's got to be coguts.

Nelson, CO 446

It looks almost the same as the other theorem because it is the same.

Guenin, Seminar

I went camping this weekend instead of preparing for the class, so we'll see how this works.

Purbhoo, CO 330

[The midterm] is the Friday before Thanksgiving, and I realize some of you may have sick grandmothers in Hawai'i.

Purbhoo, CO 330

It's important to be able to interpret these "dot dot dots" in the cases where they don't make sense technically.

Purbhoo, CO 330

The set of all sets is not a set, and so it shouldn't be called a set, because
it's not a set.

Purbhoo, CO 330

This is not a tree on four vertices. This is a drawing of something that looks
like a tree on four vertices.

Purbhoo, CO 330

[Sees several hands up. Looks at board.]
This is wrong.
[Fixes mistake. Hands go down.]
Does that answer your question?

Purbhoo, CO 330

The other class meets [...] in STP. That's St. Paul's. It's somewhere over yonder.

Schonlau, STAT 231

In statistics, we stay with "one plus two is actually three".

Schonlau, STAT 231

Someone once made fun of me for drawing a little squiggle in my QED boxes, but I
like it.

Purbhoo, CO 330

*prof*QUOTES

What I learned is that the reason this is called a loonie is that there's a loon on the back. If I'm ever confused about whether it's a duck or a goose, I just need to refer to the name of the coin. It's not called a goosie.

Schonlau, STAT 231

[Doing a binomial distribution]
We get .25 to the power of 2, that's .25 squared, that's 1/16…
[Points at the next term, which is (1 - .25) ^ 4]
…and then I use my calculator.

Schonlau, STAT 231

[Wearing a colander]
I bet you didn't know there was a conspiracy about induction. But there is.

Purbhoo, CO 330

This is so badly known that if you were to do this on an assignment in a course other than this one, you'd probably lose marks.

Purbhoo, CO 330

I'm assuming everybody's happy unless you ask me a question.

Schonlau, STAT 231

If you ignore the last line, it doesn't look so messy.

Schonlau, STAT 231

1 and n are almost the same.

Schonlau, STAT 230

Don't call me professor, don't call me sir. You will call me Konstantinos.

Georgiou, Math 239

I don't think I did drugs as a kid, but maybe I don't remember.

Brecht, CS 350

There's these things called books. They are basically old timey-wimey versions of Kindles.

Hardiman, CLAS 241

I love you guys. I'm here for you to learn and I'm all for a learning environment, but I'm not going to go into thousands of dollars of debt for you…that's your parents' job."

Hardiman, CLAS 241

What did you learn in class today? We read Homer and looked at our fingers!

Hardiman, CLAS 231

For rinky dinky numbers use your head, for larger numbers we use a computer program and for really large numbers go fall off a cliff.

Zorzilto, PMath 340

Think Twice Before Taking Part in a Hackathon
Use it for You

When I think of entrepreneurship, I don't think about just start-ups. I think about the girl in Civil Engineering selling organic fruits and vegetables at small scale. I think about my dad, whose small "business" selling phone cards (in an era of Skype!) hasn't made a profit in years. Most businesses fail. So, if you're telling the average CS student that they should start a business, you're either crazy or you've got externalities.

Hackathon funding is almost completely driven by externalities. Big companies usually want to acquihire you. Venture Capitalists get to see tons of teams execute for the cost of pocket change, and possibly first right to invest. AngelHack is, if I recall correctly, for-profit. The average CS student's master plan should never include "Win $HACKATHON" as a step; they're just setting themselves up for failure. I'm not saying that you shouldn't attend hackathons, but you need to use them correctly to achieve your goals. Use it as a chance to spend the weekend working yourself to near-death with your significant other. Use it as a ship deadline for your next prototype. Use it to get the attention of the Facebook recruiter if you really want to work there. Use it for you.

Focus on finding your "tennis ball"[0] — the thing that motivates you to get stuff done. You're not too busy to do it. If you really want to watch Shingeki no Kyojin or Suits, you will find time to do it, midterms and assignments be damned. If you really want to spend time with your significant other, you'll walk half an hour through two feet of snow to do it. If you really want to build a business to solve X, you'll take that 10% hit to your GPA. If you don't really want to do it, then go do something that you want. Dealing with regret sucks.

Keep on iterating.

(!able took part in The Next 36 Wearable Computing Hackathon this past weekend.)

!able

[0] `http://web.mit.edu/newsoffice/2013/commencement-address-houston-0607.html`

Send us your articles, *prof*QUOTES, and Sez's to mathnews@gmail.com.

There's No Such Thing as Free Food

With Welcome Week fresh in our memory, you might be thinking, "Davenport, you crazy. There's LOADS of free food on campus." No, there's no free food anywhere. Hear me out.

At the very least, all of the "free" food on campus requires you to exchange time. Last year during Welcome Week (or something similar) "free" poutine was being ladled out. The line of students stretched across the BMH green. I asked someone how long she'd been waiting, and it was 45 minutes. So, even though the food cost zero dollars, it still cost 45 minutes. All food costs some combination of time and money.

To put this all into context: I'm not a student anymore. I'm one of the 2000 staff on this campus. I remember back when I was a student, when money was scarce but time was cheap, I would go to countless events just for food. But it's amazing how having a regular income changes the "time / money value equation". Wasting precious minutes standing in line for free poutine / pancakes / whatever has lost much of its appeal. (And hey, if I wanted to spend time I could make better food in my kitchen. Highly recommended. Kitchens are awesome.)

All that being said, in the proud *math*NEWS tradition of making lists, here's a non-exhaustive list of "free" food on campus, along with what they actually want.

Co-op info sessions. Companies coming to campus looking to recruit will often buy food for the students who attend.
What they really want: the food is bait. They want bodies to spend an hour listening to how great their company is. It must work though, because they keep doing it term after term.

Religious groups. Religious groups give away food.
What they really want: At best, they want to spread cultural understanding and acceptance. (Which is cool, I guess.) At worst, they want your soul.

Student Society events: SciSoc meetings. MathSoc Games nights. They have free food.
What they really want: your non-apathy. Also they want to be liked. (Usually not a bad trade.)

Feds meetings. They have two General meetings a year, and there is generally pizza.
What they really want: bodies. The magic word is "quorum". If they don't have 50 people, they can't have their meeting.

Production nights (*math*NEWS, Imprint, whatever) Yeah, they have pizza.
What they really want: they want you to do work. *math*NEWS in particular wants the funny. In which case, ha, I sure showed you guys.

Davenport

The Science Wars

Are the science wars still going on? For those who are unaware, the science wars was a term coined to describe a series of spats between post-modernist writers and "hard" scientists, as one of the novel assertions was that all science was based on cultural narratives, and thus could not be objective.

The hard scientists hit back, with such things as Sokal's publishing of a junk article in a most-modernist journal. This has since been done in many fields, including hard sciences, and as such is mainly disregarded, but the notion of whether there is an objective reality still plagues us. The two camps have mainly continued on their merry ways for a while, but every once in a while it comes up again, for example in the notion of muzzling scientis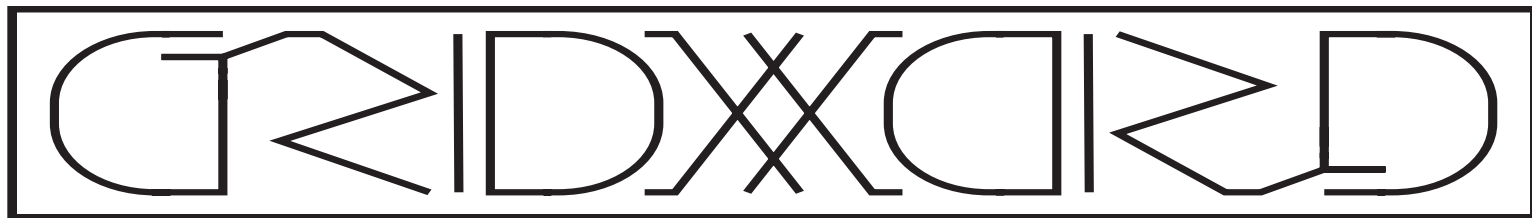ts in Canada from the PMO's office. This is a place where modernist narratives rule, and only hard science survives the long knives. Unfortunately for most hard scientists who argee with work that is closer to being worthy of skepticism, many in the outside realm use that as a clarion call to attack on things such as global warming or public health studies.

One solution I seem to have, that while it isn't particularly elegant, is that in most science/math stuff can be considered as models which we use to predict the world/people, and if the model doesn't match, we work to find a better model. It doesn't necessarily state that we can create a model to completely predict reality, but it does what we need it to.

Ice Nine

fig β. reaction to CSC elections.

GRIDWORD
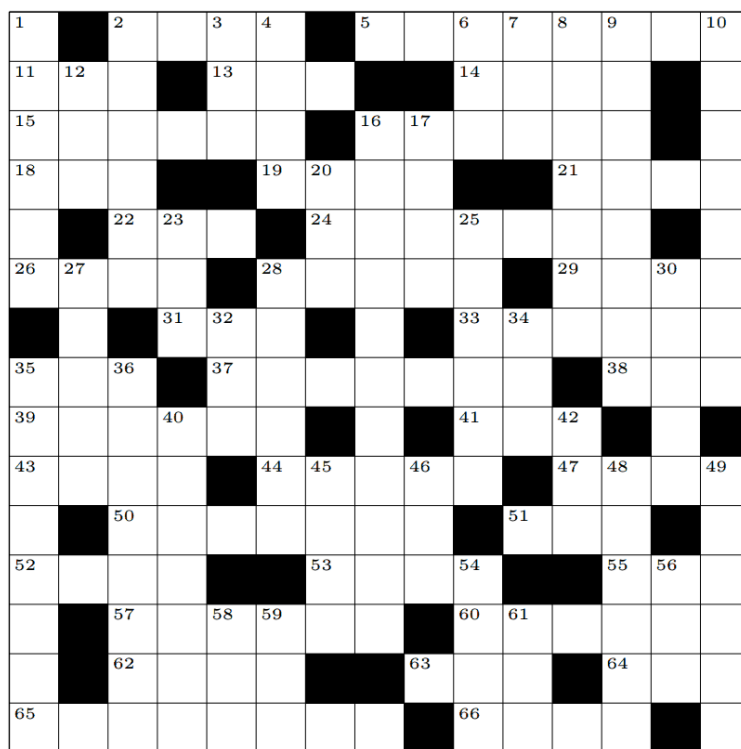
*grid*COMMENTS
Talk and speak

Inspired by two translations of the French verb *parler,* I sought true English words for matters of speech. Pardon the archaisms; I hope you'll learn as much as I did.

Submit complete (or incomplete!) grids to the **BLACK BOX** (by the Comfy Lounge on floor 3 of MC) by 18:30 on Monday September 30th. Include your name and your answer to this issue's *grid*QUESTION—the funniest answer decides the winner (of a $5 C&D gift card) in the event of a tie: "What will surely cause a sneeze?"

Cheers,
unit

Across:

2. Eye
5. Tells of
11. Ghost noise
13. Guess (see 63A)
14. Little isles
15. "Quoth" in the present
16. Shrinks
18. Ash pot
19. One of the seven Warring States
21. Between readies and fires
22. Kaepora Gaebora, for one
24. Forest fiend
26. Story, storytell
28. Ask, ash
29. Under twice
31. (Feather (___) constrictor)
33. Loafers
35. Candle-cone conifer?
37. Life-lore
38. ·
39. Draw forth
41. Cleave
43. Read-eval-print loop
44. Name, named
47. Wish, will
50. Coarse hair soundalike
51. Phys ed.
52. Songbird genus in the bulbul family
53. 1450 in Rome
55. Echolocator
57. Drug treatments
60. Called (e.g. "aptly _____")
62. Two twosomes
63. Check (see 13A)
64. Under INS
65. Told of
66. Peepers

Down:

1. Hit on
2. Carbolic acid
3. ð
4. President, yo
6. Declare
7. Photo
8. Spirits
9. Appointed, allotted, allocated
10. Super saucy
12. Plural possessive
16. Waist-down paralytics
17. Works for one
20. Not him
23. Spinner's snare
25. His armour shines
27. Lithe and limber
28. Ideologies
30. Murder members
32. Kimono sash
34. Clothing colourer
35. A particle accelerator
36. Skydiver's pullstrings
40. Zoom-in
42. Wherefore
45. Oral foot?
46. Human resource development
48. Roots, rams
49. Tell on
54. Greek guitar
56. Parrot
58. Boo and ya go-with
59. Demand
61. Weep