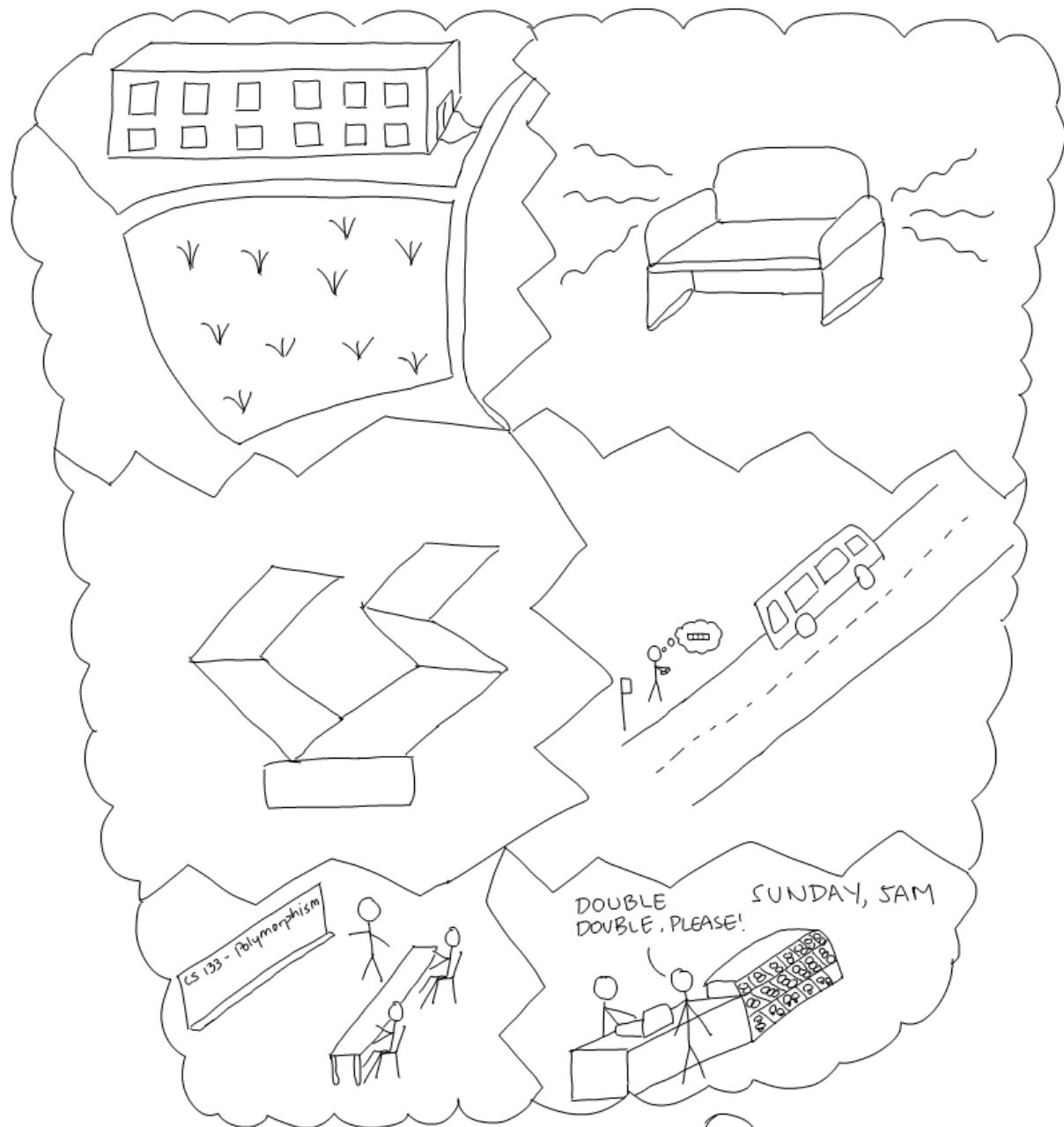


math NEWS



Volume 120, Issue 1
September 21, 2012



Snippet



lookAHEAD**mathNEWS**

Sept 21	Issue 1 arrives fashionably on time
Oct 1	Production Night #2
Oct 5	Issue 2 arrives fashionably late

MathSoc

Tuesdays	Games Night in the Comfy
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University

Fridays	Cheese Club
Sept 21	Last Day to Add Classes
Sept 28	Drop, No Penalty period ends
Oct 8	No Classes
Oct 13	SAP Code Slam
Oct 8-9	Fall 2012 Convocation
Oct 26	Deadline for 50% tuition refund
Oct 31	MEF funding request deadline

CECS

Sept 22	Job Postings Open
Sept 24	Job Postings Close
Sept 26	Career Fair at Bingemans
Sept 28	Job Postings Open
Oct 2	Job Postings Close
Oct 1 - onwards	Fall 2012 Convocation
Oct 26	Rankings Open

Misc

Sept 26	Revolution Day (Yemen)
Sept 30	Botswana Day
Oct 5	World Teachers' Day
Oct 8	Thanksgiving
Oct 9	Turkey Hangover Day
Oct 10	Oh-God-There's-Still-Turkey Day
Oct 11	I-Never-Want-To-See-Another-Turkey-Again Day
Oct 12	Ham Sandwich Day
Oct 31	Halloween

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The editors: ObjectED (Lenny Morayniss), !ED (Sacha Koohgoli), Concealed (Will Morrison)

mastHEAD*Lorem Ipsum*

For the uninitiated, *mastHEAD* usually consists of some rambling, followed by a question, and then answers to that question by the writers of the issue. This *mastHEAD* is a bit different however, because the editors forgot to ask a question before the writers ate pizza and left. Since *mathNEWS* is built on tradition, the customary rambling and question will still be here, but the answers aren't written by actual writers. You may wonder how the answers were written, if not by one who writes, i.e., a writer. In another fine tradition, that is left as an exercise to the reader, assuming any exist.

One major use of symbolism in Macbeth is the weather. This is a popular topic of conversation in pubs all over the UK, and was likely an attempt by Shakespeare to become a household name by appealing to that demographic. The attempt backfired however, due to the fact that it constantly rains in the UK, and nobody could tell whether their drinking buddy was talking about Macbeth or the actual weather. For some reason, the play became wildly popular among high school English teachers, and extremely unpopular among their students, a trend which continues to this day.

This completely fails to lead us into the topic of airline carry-on luggage restrictions. Air Canada restricts you to one article with dimensions no greater than 23 cm x 40 cm x 55 cm, and one article with dimensions no greater than 16 cm x 33 cm x 43 cm. Your editors are of the opinion that this is inherently biased against passengers with luggage that is not shaped as a rectangular prism. One of the arguments used by the proponents of the existing restrictions is that of tessellation, stating that tessellating shapes can be packed efficiently, wasting less space in the cargo hold. We note, however, that truncated octahedra can also be perfectly tessellated, and that they are much more efficient for transporting beach balls and other spherical objects.

In another utter disaster of a topic sentence, we now turn to this week's *mastHEAD* question. Since all the writers are gone, we asked ourselves the question "Since we forgot about the *mastHEAD* question, what should we do about it now?"

Concealed[0] ("Ramble about ALL THE THINGS!"), Concealed[1] ("Concealed[0] is defective, throw him back in."), Concealed[2] ("Who gave Concealed a cardboard box with 'duplicator' written on the side?"), Concealed[3] ("I think we're getting a bit off topic here"), Concealed[2] ("Oh, right. How about leaving it out and thinking of some other filler?"), Concealed[4] ("No, unlike Microsoft, *mathNEWS* doesn't like making drastic changes to our user experience"), !ED ("Talking to yourself is a common sign you're going mad you know"), Concealed[5] ("But it fills space nicely"), Concealed[3] ("So would a Peano space-filling curve, but we already used that back in Volume 119, issue 5"), Zethar ("Travel back in time and answer the question"), Concealed[6] ("But the question won't have existed yet at that point"), Concealed[5] ("We assumed the answers were written but not by a writer, what are you doing here?")

ObjectED ("Screw this, I'm in Toronto")

Prez Sez

Hello mathies, and welcome back!

I'm Elizabeth McFaul, Mathsoc President for the fall term.

For those of you who are arriving at Waterloo for the first time, welcome! Mathsoc officially represents the interests of math students to the Faculty and to the University. As president this term, I will be working on:

- Reviewing Mathsoc's structure and updating Mathsoc policies to reflect current practices and changing roles
- Working with our new external funding committee (approved this week) on funding requests to Mathsoc
- Developing and implementing a CnD business plan through the CnD Board, as well as creating marketing initiatives for the CnD
- Interacting with clubs presidents to discuss current club activities and collaborate on events that span multiple memberships

The CnD Renovations are mostly complete- and the furniture is on the way. If you have any suggestions on what we can do in the empty space in the meantime, please let us know! There was already a silent dance party. In other news, clubs are actively recruiting members this week and next. Be sure to visit one of their recruiting events, or visit their offices.

If you're ever looking for me, I tend to be around the office on Tuesdays and Thursdays. Email first though, as I am usually somewhere on campus, but often in a multitude of meetings.

Elizabeth McFaul

President, Mathsoc

president@mathsoc.uwaterloo.ca

Games Nights!

Everybody loves board games, right? Yes, I'm asking you specifically if you like board games. If you do, show up to the comfy lounge on Tuesday nights after 6:30 PM, and play games. Also, there will probably be snacks and drinks, freely available to participants. So show up, play games, and snag some free food. It's also a great way to socialize and have fun with other people, for those who enjoy that sort of thing.

DanInTheHat

Academics and You

Ready, Set, Go!

Welcome to UW! The Academic Advising team at UW is glad to have you here! Hopefully your transition from high school to university is moving along successfully.

As you may have noticed, things here move a little more quickly than in high school, so my first major recommendation is that you start doing homework NOW. If things are really going poorly, talk to an academic advisor. We live in MC4023 and would love to talk to you.

As a reminder, the drop deadline is September 28th. This is your opportunity to drop a course without penalty.

Best wishes on the term,

Riley Metzger, Director of Year 1 Studies
mathadvisors@uwaterloo.ca

MEF Sez

Hi everyone,

My name is Helen Lu. I am a 3rd year student studying the Math/Financial Analysis and Risk Management program. As the MEF Director for the term Fall 2012, I will be responsible for taking care of tasks relevant to the Mathematics Endowment Fund.

As some of you already know, the Mathematics Endowment Fund is an income-generating fund that exists to finance projects and activities that are in the best interests of undergraduate math students at the University of Waterloo. I will do my best to accommodate your needs.

MEF is currently accepting proposals for funding for the Winter 2013 term. The tentative deadline is October 31st, 2012. This date will be the latest date. It may be changed to an earlier deadline, so apply early and avoid the application jam. If you have any inquiries or concerns regarding funding and reimbursements through the MEF, please e-mail me at mefcom@student.math.uwaterloo.ca or reach me at my office hours in **M3 1004 on Monday, Wednesday or Friday from 10:30AM – 2:00PM.**

If you would like to get involved with the MEF for future terms, I encourage you to apply for a Funding Council or Program Representative. You can pick up a Nomination Form in front of my office.

Thank you for reading and hope you are having a great term so far.

Helen Lu

Fall 2012 MEF Director

mefcom@student.math.uwaterloo.ca

VP POP Sez

Hi everyone,

Hello I am the new VP POP of the Pure Math, Applied Math and Combinatorics Club. I am soliciting drink requests. Please write preferred flavours on the black board in the office or e-mail vppop.pmamco@gmail.com

By the way I don't drink pop.

Stéphane Hamade

VP POP

vppop.pmamco@gmail.com

A Cheesy Article

It's a gouda idea to join the Campus Crusade for Cheese!

You cheddar come to our meetings, in SLC 2105B on Fridays at 4:30.

It's gonna be a dairy good time.

It's a brie-ze to join; you're a member once you pay for your cheese.

It'll drive you crackers how cheap it is! Only \$2 for cheese.

Come parmed and ready; bring a plate, or pay \$0.25 for a disposable one.

Then you'll edam up all the cheese you'd like!

If you have a cheese feta-ish, or you just want to join a really weird club, come to our meetings!

Don't be forever provolone; you'll meet lots of people!

You just ricotta come, or you'll make us bleu.

You'll Havarti a good time, and we'll love you for chevre!

Make emmental the puns!

Tips on Using the GRT

There was something similar in /r/uwaterloo, so I guess I should credit it, even though I haven't looked at it since last week.

Here are some tips for using the GRT (which can be generalized for the TTC or any public transit system):

1. **Have your fare ready, whether it's WatCard or ticket or change.** Do you want to be the person who keeps everybody out as you search for exact change to pay for your bus fare?
2. **When the bus arrives at the stop, stand clear of it.** I see this too often at the DC bus stop, where people stand right up on the curb. Or worse, they stand right in the bus zone.
3. **Let people off the bus before you board.** If the passengers on the bus can't get off, how are they supposed to make room for you to get in?
4. **When you enter the bus, take your backpack off and move to the very back of the bus. Fill up all the seats — your bag does not need its own seat.** It's really surprising how much space can be freed up. All too often, I see the front of a bus packed like sardines while the back is pretty empty. It's sadder when there are two or three people left behind, and I know that they could have fit on the bus.
5. **Be respectful, and give your seat up to people who need it.** I think most people already do this, but it's still worth mentioning.
6. **Learn the bicycle rules.** If you have a bicycle, it goes on the racks in front of the bus, not in the bus. It can only go in the bus if the racks are full and the driver allows it. Sit near the front and exit out the front doors, notifying the driver that you intend to take your bicycle off the rack. If you can't figure out how to use the bicycle rack, don't do it during peak bus traffic or else you will find yourself in a confined space with a lot of people that you've just pissed off.
7. **Exit from the rear door.** I can understand if you're at the very front and there's thirty people between you and the rear door, or if you need the bus to be lowered. But those are pretty much the only excuses. Bus is empty and hordes of people are trying to get on?
8. **When exiting from the rear door, wait for the green light to turn on before trying to open the door.** Nothing else to say here, move along.
9. **There is a not-so-secret trick to opening those infuriating "wave hand to open" doors.** Hold your hand out, palm facing the floor. Swipe your hand from side-to-side as if you are cutting through a vertical beam of light (which you pretty much are doing). Holding your hand with the palm facing the door, like the sign implies, is an almost guaranteed way to fail.

!bob

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(mathNEWS), on Twitter (@
UWmathnews), or in person (MC
3030)!**

University Survival Guide

Why, hello there students. With an upcoming new term comes the requirement to survive. This guide will not tell you how to pass your courses or anything like that. Instead, this guide will tell you how to make life easier for yourself and others around you. If everyone follows this guide, things should turn out quite well for your uni career and others.

- **Right hand rule:** When walking in halls, stay to the right of the hallway. This will prevent unnecessary weaving and blockades of students. Following this will allow quicker travel and less hassle in the long run.
- **Dodge to the right:** If you find yourself on a collision course with another, please dodge to the right. If both people comply to this, you will prevent the awkward dance with your potential new dance partner. If you find yourself unable to dodge to the right for some odd reason, close your eyes and pray and the other person is smart enough to dodge to the right. If both people close their eyes, expect an upcoming intimate moment with your brand new partner!
- **Use both doors:** If there are two doors in a hallway or to a room, please use both the doors. Specifically, you should be using the door to the right for your entry/exit. Trying to fit two different directions of traffic with one door is stupid, inefficient, and slow. Also, who should help prop open the door without accidentally reaching another person can get weird. If that does happen, make sure to feel the bouncy goodness or hard abs of the other.
- **First come first serve:** Out of courtesy, do not save seats for others. Those who arrive early should benefit from their choice of seating. This is a bigger issue with people saving entire rows. At any rate, there is very little benefit sitting next to a friend in most classes anyways, it's sometimes worthwhile to ask someone new for clarifications or help. Gain a new friend that way while potentially keeping the old one! And if they unfriend you for not saving them a seat, they're potentially a douchebag anyways.

If you follow the above guideline, and think of others before yourself, then everything should even out. Life will be easier, and you'll find yourself less stressed with the people who don't follow the rules. So be sure to tell others of this guide as well. Actually, screw it, shit is gonna be a clusterfuck anyways. Good luck.

Veteran Survivor

You Can't do That at the Mongolian Grill

This is an article aimed at anyone headed to the Mongolian Grill restaurant in the plaza who is unsure of the proper rules of etiquette.

1. Do not fill a bowl full of sauces and spices and ask them to grill you a soup.
2. Although you can get an all-you-can-eat meal, bringing a cooler and Ziploc bags is frowned upon.
3. They will not replace your calamari with Cthulu chunks, even if you ask nicely.
4. Switching places with people in line because their food looks tastier is not nice.

ConcealED

Not Angry Feminist

An Introduction to Feminist Thought

The word “feminism” seems to get under people’s skin. It doesn’t seem necessary anymore in today’s society, where females are given just as many rights as men (at least in Canada, where people like Todd Akin are thankfully a border away). Anyone who considers themselves feminist in this day and age is unjustified, right?

“Feminism” seems to carry with it a negative connotation, perhaps the image of hairy-legged, angry women who keep pepper-spray in their purses in case men dare glance at them. But feminism is nothing more than the belief that women should be granted rights and equality; in short, if you think women are human, just as men are human, then you can probably consider yourself a feminist.

The aim of some radical feminists – radical because they believe in changing the foundation of society as it is – is to live in a gender-neutral society. In it, men, women, trans individuals, and the gender-queer would be treated as equals, and whose only

differing treatment would come from the difference in anatomy. This is already happening in some places in the world. Canada, for example, allows maternity leave time to be shared among the parents and provides more maternity leave time than any other country. Sweden, considered the most gender-equal country in the world, is adopting a gender-neutral pronoun. Washrooms at institutions such as universities are becoming increasingly gender-neutral, with some only distinguishing the requirement of urinals versus hygienic product disposal units.

However, like with any social problem, before we can pretend that men and women and everyone in between have always been treated as equals, we have to work on setting straight the inequality already present. In the upcoming issues, I hope to address some of these problems, particularly in the geek and STEM (Science, Technology, Engineering, and Mathematics) communities. Thanks for reading!

NOTANGRY

Letter to the Editor

So we get a lot of emails in the *mathNEWS* inbox. Ok, no we don’t, but we get some. This one just takes the cake. I don’t know anything about the gentleman (well, his name, but I’m too nice to publish that {UPDATE: We just received an email asking that we don’t use his real name, because he is “applying for graduate schools. So I don’t want all the professors to think that I need to see a doctor or that I cannot think logically.”}) who has sent us a number of emails regarding his, well, his “theory” for Math.

Previously, they were all transcripts of emails he sent to various Waterloo professors and Shing-Tung Yao, noted mathematician and theoretical physicist at Harvard. Finally, he sent us this draft of a paper, which I feel covers most, if not all of his points rather succinctly. I present it to you, slightly (though not completely) edited for spelling and grammar (and printed in Comic Sans because I think that’s an appropriate typeface) in its full glory.

ObjectED

A Complete Mathematic Theory for Macrophysic

Abstract—This paper proposes a complete mathematics theory for macrophysics. It also proves that this theory does not contradict with the current Mathematics theory system. A new macrophysics concept called “illusion” is proposed. The author also applies this concept to explain the accelerating universe.

I. Introduction: In 1900, Hilbert published his famous 23 questions including: is Mathematics complete. He suggests us to build a complete Mathematics theory on several assumptions. But in 1930 Gödel published his famous incompleteness theorems including the famous proof that “if our system is consistent then we cannot prove its consistence”. This paper tries to build a complete Mathematics theory that satisfies Gödel’s incompleteness theorems based on the assumption that “ $< >$ and $=$ are equivalent to each other”. A new macrophysics concept called “illusion” is proposed. And it applies this concept to explain the accelerating universe.

II. A Complete Mathematics Theory: Principle: $< >$ and $=$ are equivalent to each other

- **Theorem 1:** all numbers are 0. **Proof:** Say x is an arbitrary number. Then x is either > 0 , < 0 or $= 0$. Since $< >$ and $=$ are equivalent to each other. Hence $x = 0$. Hence all numbers are 0.
- **Theorem 2:** all mathematics objects are equal to each other. **Proof:** by principle.
- **Theorem 3:** all mathematical statements are both true

and false. **Proof:** by principle.

- **Complete Mathematics Theorem:** this Mathematics theory is complete. **Proof:** by Theorem 3.

This theory doesn’t contradict the current Mathematics theory since “contradict” is equivalent to “does not contradict” by Theorem 2. It also satisfies Gödel’s incompleteness theorems because “consistence” and “inconsistence” are equivalent, and “provable” is equivalent to “disprovable” in my theory.

III. Illusion: Definition of Illusion: an Illusion is the observation of human beings. For instance, before humans find the fact that the Earth is round, “parallel lines do not intersect” is an illusion. Since the Earth is round, so for all the lines that are not parallel to the Equator will indeed intersect at the North Pole and the South Pole. Hence our observation that “parallel lines do not intersect” is an illusion. To describe the macrophysics, we need to accept that “parallel lines might intersect”. And then humans developed the Non-Euclidean geometry.

IV. The Accelerating Universe Is An Illusion: According to the complete Mathematics theory proposed in this paper, the velocity and acceleration of the expanding universe is 0 m/s and 0 m²/s respectively. Hence the accelerating universe humans observed is an illusion. In macrophysics, it is not expanding. References All references used in this draft are from Wikipedia.

Dream Universe

Om nom nom

Finding food on campus

In August, a first-year asked: "Where are the best places to eat on campus?"

In my opinion, the best places to eat are off-campus, but if you must eat on campus there are still some decent places to go to. You are only forced to eat on-campus if you have food dollars that lose buying power when you stop buying meal plans, and if you don't have enough time or energy to go off-campus to eat.

If you are stuck eating on-campus, here's a quick summary of various options for "food":

- **REV:** Wraps available here; usually the employees are less stingy than the Subway in the Student Life Centre
- **V1:** Spicy / crunchy chicken wraps, open late
- **DC:** Food is bleh; closes early on Friday
- **ML:** Sweet potato fries
- **DP (LIB on maps):** Baked goods in the morning
- **SCH (Festival Fare):** Hidden on the second floor. Only open for lunch, but has amazing meals.
- **Math C&D:** 3rd floor MC; no WatCard, cash preferred (minimum purchase requirement for Interac and no credit cards IIRC) – limited stock. Usually cheaper than Food Services
- **SLC:** The chain food (teriyaki, pizza pizza, subway) has absurdly higher prices. Want a 5\$ footlong? That will cost you 6\$.
- **Tim Horton's:** Cash or WatCard only; they don't take Tim Card or Mastercard (although you can add funds to your WatCard with a credit card online). Found in DC (donuts + coffee only), SLC (full service), ML (full service), and SCH (somewhere in the middle).
- **William's – ENV3:** I like to get frosted cinnamon rolls and white hot chocolate here. If you're buying food, the William's in the Waterloo Plaza (across from UWP) is "full service" (i.e. has more food options).
- **CEIT:** Has tasty grilled cheese sandwiches and french toast.

For official descriptions and hours, see the Food Services website at <http://www.foodservices.uwaterloo.ca/locations/> the MathSoc website at <http://mathsoc.uwaterloo.ca/RightAngleCafe> and the FEDS website at <http://www.feds.ca/commercial-services/>.

!able

How to Stalk Someone

Sociology 101

Sure, we've all had those mesmerizing encounters with someone where time stops and the world moves only for us and our quiet footsteps in their shadow. If you ever feel the desire to closely follow that someone in the future, here are some tips for successful stalking:

- Research the person online first. Type their name into Google and Facebook and check out the results that come up. If their Facebook account isn't protected or if you're already Facebook friends with them, read every single post they've ever created, and look at all of their pictures, and try to learn all the important details of their life.
- Always make sure you're stalking the right person. It's really disappointing to realize that you've been wasting your time following someone who looks exactly like the person you're trying to stalk, but in fact isn't that person at all. (If the person you're stalking has an identical twin, this might be difficult.)
- Make sure you follow this person everywhere, but don't get caught following them. Follow them to class, follow them to lunch, follow them to the bus stop, follow them home, seriously follow them everywhere they go. In order to ensure you don't get caught, always stay at least 50 meters behind the person at all times. If they should turn around, quickly duck behind the nearest object or pretend to have a conversation with the person closest to you.
- Take notes on everything the person says or does. Re-read these notes at a later time and try to find out as much as you possibly can about the person. If you can't write quickly enough, get a recording device such as a laptop or a tape-recorder and carry that with you while you're stalking. Cameras are a bit too creepy though.
- If the person you're stalking ever throws anything away, always pick it up and save it. It could have some of the person's DNA on it, and someday in the future when cloning is perfected, you can make a clone of the person.
- At night, find a nice, sturdy tree outside the person's bedroom window and camp out there. Listen for anything interesting, especially if the person talks in their sleep. It's been said that dreamers never lie, so pay attention to any crucial information the person might reveal while they're asleep. Make sure the tree is sturdy, and strong enough to support your weight. You don't want the person to wake up and notice you if the tree breaks in the middle of the night and you come crashing through the person's window.
- Most importantly, DON'T GET CAUGHT! I say this, because you want to avoid that awkward confrontation where the person you're stalking asks you why you're stalking them. If this happens, deny everything! Pretend that you have no idea what the person is talking about. If you have to, tell them that you have an identical twin who has the unhealthy interest of following others.

Other than that, I wish you luck and success in all of your future stalking endeavours.

I'm really not as creepy as this article makes me sound, I swear,
Sylvia MacIntyre

Apparently Minecraft is More Interesting than *mathNEWS*

Last term *mathNEWS* set up a Minecraft server. Since then the majority of submissions to the **BLACK BOX** have been people asking to be whitelisted. Should you wish to jump on the bandwagon, drop a piece of paper with your Minecraft username into the **BLACK BOX**, and then once we get around to whitelisting you, you can log in at 129.97.134.134.

The server is only heavily built near the spawn, 500 blocks out is almost completely untouched. Backups are done often. Look forward to seeing you there!

The Night the Mathie Got His Tie

To the tune "The Night Paddy Murphy Died"

Oh, the night the Mathie got his tie, is a night I'll never forget
We started at the crack of dawn, and it still ain't over yet!
As long as there was a game goin' on, every frosh was feeling gay,
And Tie Guard brought the DJ, some music for to play!

Chorus

*That's how they earned their title as a Mathie,
That's how they showed their honour and their pride;
They fumbled on their flash of pink and they winked at one
another
And the party never stopped the night the Mathie got his tie!*

As the Mathies occupied DC quad showing skills so 1337,
A couple of rowdy engineers came tearing down the street!
They went to the top of M3 roof, our pink tie they nearly stole,
But Tie Guard thumped them soundly, that's why they're in
that role!

Chorus

About two o'clock in the morning after puttin' on the cravat
Pinkie crashes the Tie Guard party to be where the fun's at
We danced around with the Mathie girls looking just so fine,
And showed up to bleary-eyed to the next event at nine!

Chorus

They ran around campus heading to PAC's saloon
They stopped by Bomber's karaoke to hear other froshies croon
They grinded on the dance floor, so holy and sublime
Found out when they got there, they left their tags behind!

Chorus

Oh, the night the Mathie got his tie, is a night I'll never forget
We started at the crack of dawn, and it still ain't over yet!
As long as there was a game goin' on, every frosh was feeling gay,
And Tie Guard brought the DJ, some music for to play!

Chorus

!ED

First-Year Student Lovestruck by Bus

Also stuck on bus

A first-year mechanical engineering student was hit by cupid's arrow recently when he saw a GRT bus on February 14th this year. Bus # 1701, caught the heart of Salman Saudi as he rode upon the 201 iXpress Route. The bright colours and sleek forms of the bus led to love at first sight.

Speaking to him on the bus, which he has been on for seven months, we asked if his love was still true. He responded with, "This bus is my love and my life, my family has provided me with food and I will be with her until the day she rolls over dead."

Ice Nine

New Plant Rights Organization Vandalizes Biology Lab and "frees" Plants

Sunday, September 16 – A group of individuals broke into the University of Waterloo plant growth and research facility. No equipment or money was stolen, but most of the lab's plant based research was destroyed. Even stranger, all of the plants were pulled from the soil and left to rot on the lawn outside. The only clue that brings any amount of sense to this bizarre incident is the graffiti sprayed in various walls inside the building. Messages such as "THE PLANTS ARE NOW FREE", "LONG LIVE THE PLANTS LIBERATION FRONT" and "PLANT EXPERIMENTATION IS TORTURE", allude to the reason of the break-in: a radical group of individuals decided to "liberate" the plants to save them from the "torture" that is the laboratory experiments.

"This is getting ridiculous", remarked Dr. Chuong as he gathered up his destroyed research, "People breaking into labs and freeing animals is bad enough, now they're liberating plants? How stupid and mis-informed do you have to be to think that RIPPING a plant out of the soil will help it in any way?"

The police are investigating but does not have any suspects at the moment. Finding the culprits will be unlikely, as the intruders wore ski-masks to cover their faces and gloves so they left no fingerprints.

Update: Monday, September 17

The group in question, the Plants Liberation Front, uploaded a video onto Youtube. The 4 minute video outlined their mission:

- To inflict economic damage on those who profit from the misery and exploitation of plants.
- To liberate plants from places of abuse.
- To reveal the horror and atrocities committed against plants behind locked doors, by performing nonviolent direct actions and liberations.
- To take all necessary precautions against harming any plants.
- Any group of people who are meatatarians or meatans and who carry out actions according to PLF guidelines have the right to regard themselves as part of the PLF.

In related news, People for the Ethical Treatment of Plants (PETP) has announced that they are in no way affiliated with the PLF.

theSMURF

Violent protests break out in Muslim nations over video that depicts them as violent

After a video which is critical of the Muslim faith and depicts Muhammad's followers as violent killers, riots started in Egypt, Libya and other Arab and Muslim nations. Western embassies were attacked and officials were killed. That's all I've got, I just wanted to point out the silliness of the situation.

Please don't bomb my house,
theMUHAMMAD

You Can (Probably) Make Money from Classes!

When our mighty professors perform those magical spells that put us to sleep (i.e. articulate dull speech), I often find myself contemplating academic existentialism. Why is this professor speaking in English-sounding gibberish? What is the life purpose of ACTSC 371? Will the comely young brunette at the front date me? Where is my phone? Which dog is Ricky Gervais insulting now?

To phrase it bluntly, many of us are training to be astute accountants, actuaries, financial managers, or software developers. How mundane does that sound, and what happened to dreams? I can say with relative certainty** that none of us, as exuberant, house-wrecking seven-year-olds, said, "When I grow up, I want to be a financial manager!"

**Including "relative" saves you from your statistics professor jamming a bell-shaped spoon at you for being terminologically incorrect. "Certainty" implies 100% and something about disregarding confidence intervals and whatnot.

With a healthy dose of cynicism and unhealthy dose of Carly Rae Jepsen, I concluded I just met my mid-life crisis, I should re-evaluate my academic pursuits, and... well, this is crazy. I'll wait a paragraph for you to listen to The Summer Song, since I alluded to it and you obviously feel compelled to listen to the catchy autotune. Go ahead, I'll wait and munch on some CHEESE.

Welcome back. So, I decided to apply everything Waterloo's Faculty of Mathematics taught me to sports and entertainment. Below, I will discuss the concept of arbitrage, something they teach you in Corporate Finance to make risk-free profits on ... uh... something.

The 2012 Primetime Emmy Awards are this Sunday, in recognition of television excellence and beautiful people in dresses and tuxedos. If you don't watch *Mad Men* or *Breaking Bad*, you're missing out, but rest assured, you can make money off them! *Mad Men* is trading at -150 to win "Outstanding Drama Series". This means you can bet \$150 to win \$100 (or bet \$100 to win \$71.43), should *Mad Men* win its fifth straight Emmy. *Breaking Bad*, is listed at +225. That means you can bet \$100 to win \$225. The other nominees, which don't stand a chance to me (with all due respect to *Downton Abbey*, *Homeland*, *Game of Thrones* and *Boardwalk Empire*), are listed at +600, +600, +2500, +3300, respectively.

Now, if you're an overachieving finance major, your human pupils have probably turned into animated dollar signs. If they haven't, listen to The Summer Song again, and hopefully pennies and dimes will bring you a nice arbitrage kiss. The math: let's say you have a measly \$50 to bet with. Your objective is to maximize a risk-free profit by allocating your Mackenzie King bill properly. This can be accomplished by betting \$33.05 on the -150 *Mad Men* line (yielding potential return of \$22.03, plus the initial bet for a total of \$55.08), and \$16.95 on the +225 *Breaking Bad*, line (yielding \$38.14, plus the initial bet for a total of \$55.09).

Behold! Our returns both exceed the initial \$50 investment. So no matter which drama wins, you will come back out with at least \$55.08, for a tidy \$5.08 profit and nice 10.2% return on investment. It's a simpler-than-simple system of equations, with no need to compute interest rates, time value of money, nor puts and calls! Yay!

MetaCynik

51st Shade of Grey Discovered

Colour Enthusiasts and Sex-Starved Mothers Shocked

In a shocking turn of events that has left the global fine arts community appalled, an unknown college senior has announced the discovery of an unprecedented fifty-first shade of grey.

This discovery has left, among others, teenage girls across Canada reeling in shock. Many have enjoyed the study of the colour grey ever since the once-obscure pastime of colour analysis famously surpassed the popularity of good literature earlier this year.

"I can't believe this," said a student from Wilfrid Laurier University, who spoke on condition of anonymity. "I used to read about the fifty shades of grey the minute I got back from my lectures. I thought I knew everything there was to know about the colour grey."

"Now I'm lost. Fifty-one shades? I don't even know what's real anymore."

Curiously, despite the widespread panic, very little is actually known regarding how the discovery was actually made, although there have been reports that the Canadian government is considering a motion to have all steel chains painted over with a less provocative colour.

Prominent colour scientist and Nobel Laureate E. L. James declined comment on the situation.

Disembowelled Blueberry

UW Students are Getting Out the Vote!

As you are all no doubt aware, the NDP came to a landslide victory in the election earlier this month. To gauge how our university stood in this election, we stood out in the DC quad and asked students who they voted for.

Darren, 3rd year Engineering: "Election? There was an election? Does that mean Layton's not the Prime Minister anymore?"

Kim, 1st year Arts: "I'm looking for Needles, the map says it's around here?"

Aro, 4th year Math: "Yeah, I was going to vote Liberal, but I was up late coding and the next thing I knew the election was over. But I've almost solved P=NP."

Ka, 1st year math: "Xu yao wo bang mang ma?"

Unknown: "Liberals are garbage! NDP for life!"

s.qlr

New Safe Sex Slogans

With the recent arrival of the new students and subsequent filling of the residences, the amount of sex occurring on campus has increased drastically. As a concerned citizen, and opponent to large numbers of babies, I feel it is my responsibility to pass on my vast wisdom on the topic of safe sex, by way of slogans. Birth Control Via:

- Magic: The Gathering – The more cards you tap, the fewer people you'll tap!
- World of Warcraft – Make war(craft), not love!
- Dungeons and Dragons – Make a skill check, DC\ 50 against diplomacy, only one assist allowed.
- Drug Abuse – Drugs, not (naked) hugs!
- Mathematics – Still have time for a partner? Take another course!
- Anime – More animated motion, less naked motion!

A Guide to Not Ostracizing the Girl You're Trying to Hit On

It has come to my attention that some of the boys in the math department lack the ability to tell the difference between flirting and stalking. [For those still interested in stalking, see the article on page 6 – Ed.] With this state of affairs in mind here are a few suggestions on how to end up with a date rather than a restraining order.

1. If during conversation she continually mentions her girlfriend consider one of the following possibilities:
 - She is hoping that you'll assume she's a lesbian and stop inviting her to do calculus assignments together.
 - She is a lesbian and actually has a girlfriend.
 - She is one of those girls who calls her friends "GII-IIRLFRIEND!!11!". In this case she may not be very happy with you when you inform her that you can't go away for the weekend because Saturday afternoons are reserved for D&D.
2. Doing an assignment together is not a date. Try coffee, or Magic the Gathering, or if you happen to like music the KW Symphony. Anything but math homework.
3. If she says "I'm dating someone so if I go out for coffee with you it won't be a date" DO NOT ask for her number. The reason behind this should be obvious. If it is not you may want to ask your roommate if they would be uncomfortable with you bringing home a blowup doll.
4. If she disappears before you can walk her back from class...do not run after her...or worse follow on her bicycle.
5. If she suddenly starts sitting in another place in the room consider the possibility that she is avoiding you.
6. If she suddenly stops showing up to class DO NOT check the other sections for her. Try again with a new girl (or boy...there are more of them) and this time don't start by staring at her(him?) every day for two weeks straight without saying anything. Note: If this disappearance coincides with number four and/or five you may not want to speak to her again. After all, a restraining order could make it really awkward for that co-op term you wanted to do overseas.
7. And finally, if she says she doesn't really like sharing her phone number consider that this is a statement specific to you.

Best wishes and if all else fails keep this in mind: Japanese sex robots are getting really advanced these days.

Program_Limbo

Ninja Pathways

Useful for increasing stealth on campus

If you're unaware, there are ways to go among buildings without actually stepping outside. It's useful information for rainy/hot/cold/icy days. Be sure to explore and find the best routes between buildings. Here, I'll give you a hint for one: It's possible to get from the MC to RCH without ever taking a step outside. Good hunting pathfinders.

Marco Yolo

mathNEWS sportsDESK #1

Because I am a lazy person, I have changed one word in the old sports column name and voila, welcome to the brand, new, never-before-seen *mathNEWS sportsDESK*, where you will receive a biweekly, hopefully-objective, semi-accurate update on the happenings of professional sports.

Leading off this paragraph is a baseball metaphor, which I will use to introduce the hockey landscape. The National Hockey League has locked out the players, leading to the greatest opportunity for Toronto Maple Leafs fans to brag about their team. This is the only scenario where you can say, "The Leafs would have won the Cup this year!" and not get rebuked. So spread the word and eventually everyone will believe it, and it can't be proven wrong!

In America, the sport they insist is called football, and not Human Bumper Cars With A Brown Ball, has returned. The Philadelphia Eagles have won two games by one point, and Peyton Manning, the national deity, beat the Pittsburgh Steelers. As long as you know something about the Eagles, Peyton Manning and the Steelers, you're up to date on the NFL.

In old-man America, baseball is winding down as several teams are chasing other teams. The Baltimore Orioles, a common lash-out target among sabermetricians, continue to defy advanced statistics to compete for the wild card. The mood in Toronto seems to be, "That should've been us!" Next year, as they say, which we said the year before. Continue to infinity.

In soccer, human beings are running on grass, chasing a white and black spherical patterned ball 95% of the time. This is probably significant enough, so who cares about the other five percent.

You've made it through edition one of *sportsDESK*. If you can read four paragraphs of sports content, you can fake a bar conversation. Don't be the person who abstains by pretending to text someone.

MetaCynik

COMPUTER ASSEMBLY



Conservative Coding

It's been my observation that the state of coding practices, and especially terminology, have been an entitled, liberal scourge on the face of coders everywhere.

Consider the fact that we have names such as greedy and lazy algorithms, and that these things are actually preferable if they work. Where's the place for honest, hard-working algorithms that actually work for a fair performance cost? And what about those leftist trees, eh? You don't see any representation of "rightist" trees. They say leftist trees are good for merging. What's there to merge? Keep your dirty trees off of mine. Leftist trees are a leftist conspiracy for a leftist programming society, I say.

Now, physics, there's a branch where shit gets real. Physics has something called "conservative forces", which are forces where the same work gets you to the same place. There's a branch that really knows what they're talking about. I say we right-wing hoots should go pursue physics instead of computer science.

Ender Dragon

Social Norms

A logical approach

As we know, a norm is a function from a set X to \mathbf{R} , with the properties that:

1. $|x| \geq 0$ for all x , $|x| = 0$ iff $x = 0$
2. $|ax| = |a| |x|$, for all a , x
3. $|x + y| \leq |x| + |y|$

So now we apply this to social norms. In this case, X will be the set of all behaviours, and $| \cdot |$ will map onto the real numbers \mathbf{R} , representing in this case how favorably the action is viewed. There are many possible norms, but it is a well known theorem that all norms are equivalent (subject to multiplication by some factor), so we will use the norm of Social Approval henceforth.

We will test each condition in turn to determine whether this is or is not a norm. Our function $| \cdot |$ does satisfy the condition that $|0| = 0$: If you do nothing, nobody cares. As it turns out, this is the only condition that the Social Approval "norm" satisfies. It violates the first part of condition 1, because there exist actions that are viewed unfavourably: Let $x =$ "become an alcoholic". Then $|x| < 0$; people negatively care.

Condition 2 is violated by the following example: Let $x =$ "save a baby from a burning house". Then $|x|$ is some fairly large positive value. But consider $\frac{1}{4}x$, which would correspond to either:

- a) pulling $\frac{1}{4}$ of a baby out of a burning house, and leaving the rest behind, or equivalently
- b) pulling a baby $\frac{1}{4}$ of the way out of a burning house, and then leaving it there. In this case, $|\frac{1}{4}x| < 0$, and it is certainly not the case that $|\frac{1}{4}x| = \frac{1}{4}|x|$.

Condition 3 is violated by letting x and y be "saving all women" and "saving all men", respectively (so called for chromosomes, obviously). Then $|x + y| =$ saving all the human population, which has a very large positive value, while $|x|$ and $|y| =$ effectively committing gendercide, which has a large negative value. It also has the result that all survivors are horny and pissed off, further driving it into the negatives.

Thus, since Social Approval gives results that contradict all three conditions of norms, it is not a norm. Thus, social norms are not real and we should not continue to follow them.

Q.E.D.

tesseract

Mathie Fashion Accessories

As math students, we are typically thought of as lacking style, or at least not caring about it. But there are certain items that bring out the best of our mathie spirit, and wearing them prompts others to say or think things like, "What a great look!", "Such math pride!", and "Hot damn, where can I get that?" Here is a subset of those items, for your reading and wearing pleasure:

- **The Pink Tie:** Of course, this list would be useless if this lovely item wasn't the first thing on it. Coming in many, many varieties, it can be classy and snazzy, or sharp and standout. It's perfect for basically any mathie encounter possible. Potential other methods of wearing this include as a belt and as a headband, both of which are much less formal but still awesome. A sweet variation is the Black Tie, which is significantly more rare than the Pink Tie, and found only around the necks of those mathies who take on specific leader roles during Orientation.
- **Pink Watches:** Coming in both men's and women's styles, this is a great way to add some flair to your overall demeanour. They are also very functional (not in the analytic sense), and are fairly straightforward to come by (two for ten dollars at Ardène!)
- **Pink Belts:** These are also useful, though less visible if actually used as belts, usually due to people not tucking shirts in. Thus, one method of making sure that everyone sees your awesome belt is to wear it as a sash! This originated in Orientation Week 2012, amongst the Devisors. It is stylish, and an amazing way to hold things like radios, pens, pins, Pokémon badges, and fake wooden parrots. It's also a very good substitute for a tie pin or clip, to keep your tie out of sinks and close to your body. Remarkably handy!
- **Pink Tie Boxers:** Available at MathSoc, theoretically these would be very rarely seen in public. Of course, depending on how much time you spend in the Real-Time lab or in the CSC during times like "No-Pants Fridays", that would change. Also, significant others would very likely appreciate your stylish undergarments.

Hopefully this has given you some ideas for dressing in a much more mathie way, while simultaneously being more well-accessorised. Why, you might even dress better than last term's MEF Director!

No hard feelings Stéphane,
Scythe Marshall

On the NHL Lockout

Gary Bettman

DSM-IV: D&D Edition

I, a psychology minor, recently sat in on a lengthy session of Pathfinder with a group of friends, and have come to one conclusion; psychopathologies are easily spotted while monitoring group dynamics. If psychologists ran carefully controlled studies in which patients participated in D&D, it is possible that the run time for diagnosis could be improved significantly.

In this environment, people are less likely to be inhibited by social expectations and rules, and thus their true selves come to light. Even a novice in psychopathology can begin to see shocking trends in behaviour, which are indicative of sociopathic and psychopathic tendencies, a few of which I will outline below.

First off, there is the sociopath. This person suffers from antisocial personality disorder, and is entirely unconcerned with (and occasionally unaware of) the feelings of others and social consequences of their actions. They are self-serving and dangerous, and often far too intelligent. They use any and all means necessary to achieve their goals and have an extreme proclivity for violence.

There is also the sadistic extortionist. He coerces the others into committing terrible crimes, and though he participates in no physical violence, he betrays those who trust him by bankrupting them and throwing them under the metaphorical bus. He achieves sexual gratification in the suffering of others, especially those he'd led to trust him throughout the campaign.

Next, we consider the 'psycho'. We use this term loosely, as we are simply considering psychosis; the collection of delusional and hallucinatory symptoms. This person is highly

unstable, and near incapable of logical or rational thought. His perceptions are largely clouded by his delusions of grandeur, for example the way in which he believes to own a company that he actually has no stake in. The disorder seems to most as laughable and ridiculous, but there are dangers in being out of touch with reality.

Now, we analyze the "control freak"; the game master. He is the perfect example of Obsessive Compulsive Personality Disorder, to be distinguished from Obsessive Compulsive Disorder, as the two are almost entirely unrelated. Perfectionism is his middle name, and he is so preoccupied with orderliness that he is incapable of flexibility (even physically!). He craves interpersonal control, and experiences great distress whenever the other players disturb his carefully constructed plot. It is likely he will spend endless nights compiling minute details that the other players will continually ignore.

Finally, we must consider the seemingly "normal" guy. He's laid back and friendly, and to the untrained eye it may seem like he is the minority, trapped within a group of mentally ill friends, but unaffected. However, in a follow-up solitary study, we find that once left alone, he laughs manically and murderously non-stop after 9pm, until he eventually falls unconscious. Verdict: he is going to crack. Soon.

In conclusion; there is a high prevalence of mental illness with excessive amounts of D&D. Coincidence? I think not.

psychomath

QNC Opening Marred By Poor Wireless Service

Today, a five-year saga has come to an end. Today, we can finally rejoice, because the wonderful frisbee field that was B2 green has not died in vain. Today, opens the dawn of a new era—a fast indoor link from MC to B2.

There's also, apparently, a "state-of-the art facility" which is "built to the most stringent scientific controls against vibration, temperature fluctuations, electromagnetic radiation and more" will allow for "research and discovery at the forefront of science." The "groundbreaking discoveries" inside the giant beehive will "continue Waterloo's long tradition of research excellence, innovation and collaboration through the 21st century."

However, the adventure yielded less-than-desired results, when the researchers so gleefully moving into their new abode discovered, much to their horror, that the wireless Internet doesn't work. The rest of us, who have been tortured for months by the fickle mistress known as eduroam, knew this was going to happen. We tried to warn them, but we couldn't connect so that we could send email.

On this sad day, I hope you will join me as I lament our inability to download course notes, browse Facebook, or do anything else that we might do to take our minds off the professor at the front of the classroom,* and as I mourn the promise and hope of QNC's construction, overshadowed by the failure of the Internets to live up to their dream.

Algoweirid

* In the interests of full disclosure, I will admit that a contributing factor to this is that QNC has no classrooms.

Flirting with the Fuzzy Line

Between lousy article and good filler

Now this is the story all about how
My life got flipped, turned upside down
And I'd like to take a minute just sit right there
I'll tell you how I became the prince of a faculty called engineering

In west Waterloo born and raised
In the MC where I spent most of my days
Chilling out, maxing, relaxing all cool
And proving some lemmas outside of the school

When a couple of operators, they were up to no good
Started making trouble in my open neighbourhood
I made one false assumption and my prof got scared
And said "You're moving with your auntie and uncle in engineering"

I whistled for a cab and when it came near
License plate said "fresh" and had a dice in the mirror
If anything I could say that this cab was rare
But I thought nah, forget it, yo homes to Engineering!

I pulled up to E5 about seven or eight
And I yelled to the cabby "Yo, homes smell you later!"
Looked at my kingdom I was finally there
To sit on my throne as the prince of engineering

MC Hermit

For the Hygenically Challenged

Summer is drawing to a close as fall term begins, which means cooler air, warmer jackets, and less sweaty body odor in stuffy classrooms. This would be the ideal scenario.

For many readers, this fall term could be your first time away from home which means that your parents aren't here to cook

for you, clean for you, and most importantly, do your laundry. Just because you shower every day (and I hope many people do) does not mean that you automatically smell good. I once read a very wise quote on the internet, "You are only as clean as your towel is." Below is a program that I wrote for doing your laundry.

```
def laundry(dirty_laundry, clean_laundry):

#We begin by sorting a stack of clothes into different piles for further procedures
whites = []
colours = []
for item in dirty_laundry:
    if item.colour() == 'white':
        whites.append(item)
    else if item.colour() != 'white':
        colours.append(item)

#Now we have two stacks of dirty laundry and we will use parallel
#washing machines because parallel washing and computing are more efficient
#than serial washing and computing
washing_machine_1 = []
washing_machine_2 = []

#Look on the laundry detergent bottle to see how much you need to add
washing_machine_1.append(laundry_detergent)
washing_machine_2.append(laundry_detergent)
washing_machine_1.append(whites)
washing_machine_2.append(colours)
wash_hot(washing_machine_1)
wash_cold(washing_machine_2)

#Now we wait for the laundry machine to finish its cycle
pause 45 minutes
dryer_1 = []
dryer_2 = []
dryer_1.append(dryer_sheet)
dryer_2.append(dryer_sheet)
dryer_1.append(whites)
dryer_2.append(colours)
dry_clothes(dryer_1)
dry_clothes(dryer_2)

#Now we have to wait again for the dryer to finish its cycle
pause 45 minutes
clean_laundry.append(whites)
clean_laundry.append(colours)
return clean_laundry
```

So there you have it! A simple python pseudocode program instructing you on how to wash your clothes at university! I wish you much success!

MoGlo <3

Rainbow Mathies Author Missing, Plans to Be Back Next Issue

N Things to do During Frosh Week

- Tell the AHS students that the purple engineers are actually exhibiting a rare new skin condition. Put the Benny Hill theme on your iPod while you're walking around campus to enhance the effect.
- Lull the freshmen to sleep by stuffing them with pizza. Once they're out, cut off all their bracelets. Enjoy watching them wake up and suffer identity crises as they no longer know where they belong. Bonus points if some of them end up switching programs. Double bonus points if some of them end up going to Laurier.
- Learn the Gangnam style dance. Become their god. (Probably only works at the 2012 frosh week, but you never know.)
- Dress up as a member of Edcom. Do your best Irish shillelagh dance in front of as many freshmen as you can find. Bonus points if you stay in character for at least three days first.
- Capture some geese, and put frosh week bracelets around their necks. Watch the frosh trying to socialize. Bonus points if the geese win any 'Most Enthusiastic' or 'Miss Congeniality' awards. Double bonus points if they move into a double room in REV for a term. Triple bonus points if they graduate on time.
- Dig out your pink tie, and use it to lead a pack of mathies away from the herd. Give them a pep talk about how regular showers are an absolute requirement of attending Waterloo. Bonus points if any of them drop out. Double if they all do.
- Schedule a fire drill in a student residence at 8.45AM on the last day of frosh week. No, wait. Surely no one would be that cruel, right? Right? (Bonus points if it's REV.)
- Decide that your years at Waterloo haven't served you very well, and that you'd rather have a blank slate and start all over. Re-enroll as a freshman. If you do this, there are no bonus points.

s.qrl

Apple Announces New iPhone With an Arts Degree On Back

Apple announced today the release of the company's new iPhone 5, which includes a bachelor's in fine arts taped to the back. CEO ~~Steve Cook~~ Daniel Cook? Tim Jobs' recent statement that uWaterloo students would desperately "line up like idiots" to purchase the joke of a product/degree combo anyway. "Sure, the new iPhone has a useless degree that comes with it, but we know you pathetic losers will still buy it, because, hell, you'll buy anything we put out," Cook said in a press conference, describing the lightweight smartphone that will include a larger high-resolution display and have the waste of paper laminated on its back. "Our technology ensures that the degree will brightly light up through whatever you use to cover it in an attempt to hide your shame, so don't even try. Students are very stupid and sheeplike, and I will enjoy watching you get ridiculed." Cook followed the iPhone 5 announcement with a brief preview of the company's updated iPad, which with purchase will include your very own Laurier sweater, which you must be wearing in order to operate the iPad.

Egadd

Functional Procrastination

If you are anything like me, you have a tendency to leave off important things. Things such as "declaring a major" or "finding a place to live next term" or "eating". Whenever there is something important, I can find any number of tasks which are more immediate. This can be a huge problem, when the task in question is legitimately important, like writing a work report or enrolling for classes. However, when there is a task which seems important, but in reality is not, this tendency to procrastinate can actually become very helpful. It is possible to avoid work that seems important in favour of work that is actually important.

The first key to being a functional procrastinator is the ability to artificially inflate the importance of tasks, and to avoid critically analyzing importance of these tasks. A excellent example of this is declaring a major. At least for Pure Math, declaring isn't really necessary to do until quite late in undergrad. So, by considering this a very important task, it triggers the urge to procrastinate from it. Couple this with the fact that it can only be done in a few hours per week (academic advisor office hours), and there is a strong urge to be doing something else during these hours. The most important part is to be very careful to maintain the importance of the task you are trying to avoid. Without this key step, it is too easy to actually get around to doing the task, thus reducing the number of things to procrastinate from.

Once you have a suitable task to avoid, the next step is to lower everything else in priority. That way, you avoid your most important task in favour of your less important tasks. Namely, you will do the tasks that are actually important. Like homework or studying. And then, when you are done everything else, you can simply do nothing. Thus, all your work will get done, except that which you consider of overriding importance (but is low importance). That is the true beauty of functional procrastination.

AcroMath

The Origin of the Name !bob

A few years back, when I was a frosh recently recruited into *mathNEWS*, an editor had to set my account up, and gave me the temporary name "bob." Then, I had to devise a writer pseudonym. My train of thought went something like "bob" => "But I'm not bob!" => "not bob" => "!bob"

See, in C-syntax-like languages, ! is the "not" operator, so "!bob" means "not bob." Coincidentally, "!bob" is also the last four characters (in reverse) of "but I'm not bob!"

Anyway, for some odd reason, the rest of the *mathNEWS* frosh decided to adopt change or adapt their pseudonyms to follow the "! means not" theme. Some of us are still using that name today; others have moved on.

It was a while before someone realized that in Scheme (or Racket), ! has a different meaning. Or rather, a different way of reading/saying it. And Scheme/Racket is taught in CS135, which most first-year math students take. As software engineers, we took CS137, which teaches C. (Yes, softies pretty much controlled *mathNEWS*. We still do, though it's not as skewed.)

So the moral of the story: symbols may have more than one meaning. It's probably a good idea to check the other meanings first before using them.

!bob

On the Raspberry Pi

This term is the first term that I've brought a computer of my own to campus. It's the \$35 Raspberry Pi — a little-endian ARMv6 computer with 512 MB RAM and various I/O ports. It feels a lot like a smartphone from two or three years ago, minus the cellular radios and on-board flash... and a case.

It is somewhat ironic that the infrastructure and parts I've obtained to make it work cost that more than the computer itself — a 1080p monitor, a powered USB hub, a USB keyboard and USB mouse, an ethernet cord, a router, an old smartphone charger, and an 8 GB SD card. With the exception of the SD card, though, it'd be nick-nacks that I'd probably have anyway if I owned a traditional desktop computer.

The Raspberry Pi computer runs, in the default OS image, at 700 MHz. In my experience, overclocking the RPi to 900 MHz is pretty trivial (add a line to a file in the root of the FAT partition on the SD card). It doesn't have a huge effect, but every little bit helps.

Considering that ARM is a RISC architecture (as opposed to CISC architectures like x86), you can (to a first approximation) assume that the RPi is roughly as powerful as a 1998-era desktop computer. This means that while it is possible to compile and execute Chromium, Firefox, Inkscape, and other modern-era programs on the device, they run rather slowly. I get around this by using SSH X11 forwarding and running the applications in the linux undergraduate environment. I sometimes find that my ECE courses require proprietary software, though — for this, I use rdesktop (an RDP client) to connect to terminal servers run by Engineering Computing. And the RPi handles other light tasks (running vim; ssh; byobu; elinks) just fine without graphics acceleration.

I've been bitten by the lack of a hardware real-time clock a few times when booting up the RPi detached from the network — although it's a very quick habit to learn that I just need to set the date from a reliable source (like my cell phone) after booting up the machine.

The only thing that worries me about the RPi is how well it meets its original goals. I'm not confident that I could just hand one to my seven-year-old sister and expect her to know what to do with it. Perhaps I'm doing it wrong. What do you think?

!able

N New Things to Find in QNC

Waldo is excited too see what there is to find!

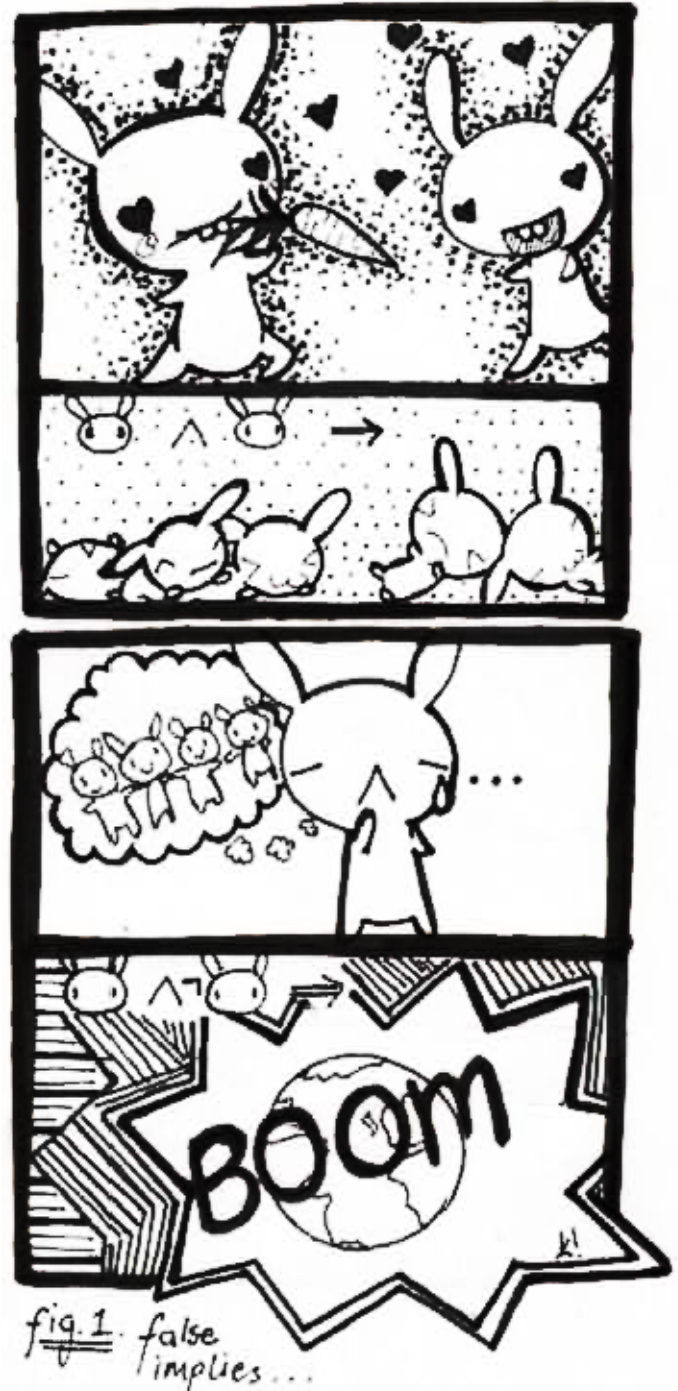
- A classroom...WITH A WINDOW!
- More space? Maybe?
- Tunneling
- Bras
- Kets
- Brackets
- A place where Math and Engineering can come together to do something complicated and a little intimidating....wait, we already have an entire program for that!
- Honeycomb windows
- Traffic flow by the Comfy (i.e. the people who are totally not sleeping there may get a rude awakening every time class gets out)

waldo@<3.LE-GASP.ca

Poutine-ing the Poo-poo

You would be hard pressed not to find poo-poo everywhere in this city. However, you would be hard pressed to find non-shit shit. Smoke's Shittery, a widely respected scatological franchise, recently opened a store in Waterloo. It was founded by a business graduate from Laurier, Johann Mozart, an expert in the peddling of bullshit. I recently attended their establishment, to try one of their delicacies and decided on the poo-poo poutine, a modification of the famous pulled pork poutine. It involves an employee passing a pulled pork poutine through his or her gastrointestinal track, and then defecating the remains on top of a freshly made regular poutine. The consistency was fantastic, with the fecal matter acting as both a hearty topping and gravy for the fries. Why people pay such high prices for such elevated crap does not surprise me in the slightest.

The New Scatologer



Odes to Orientation

Haiku

Orientation
My voice is gone from screaming.
It was so worth it.

Limerick

I'm running all over the place,
I'm getting in other teams' face
I'm rocking o-week
And our team is sweet (totally rhymes, sshhh)
And we will always win the race.

Acrostic

Obviously amazing
Whatever tickles your fancy
Easily described as insanity
Entertaining for all involved and watching
Killer on your vocal chords

Couplet

Leaders make up the talk
Froshies make them rock

Diamante

Orientation
Crazy, hectic
Organizing, running, delighting
Scavenger Hunt, Monte Carlo, Variety Night, Earn Your Tie,
Scaring, entertaining, informing
Wonderful, fun
Frosh week

Quatrain with iambic pentameter

To speak of frosh week can be hard to do
When so much of it can be said is true
And though there was so many ways to say,
It's awesome even when rain comes our way.

Yours in poetry,
Shay Blair

Sonnet I

Fear not the symbols written on thine page:
Therein doth bespeak an enlightening tale –
A brave warrior and his partner sage
Quest constantly for the elusive grail.
A horde of green-eyed monsters fend this shard –
They were no match for this experienced pair.
Amidst the carnage there is one last guard:
The immortal sphinx whose sharp wit ensnare.
“Defeat mine riddle to attain thine prize!”
Despite best effort, they only fit spikes;
At their wits' end the sage consults the skies
And from the azure inspiration strikes.
The fiend is defeated; the princess saved –
But no rest comes, for there are more enslaved.

Zethar

Russian Reviews

FTL

FTL: Faster than Light is a game where you control the crew and systems of a starship. At the same time, you are also tasked to stay ahead of a hostile fleet that is hunting you down for the information you hold. The majority of the game consists of vital decision making which includes managing your ship's crew and power, and selecting your actions and orders when you encounter others.

With a large selection of play styles, weapons, crew, and upgrades for your ship, the high difficulty and randomness make for a very challenging and enjoyable experience with plenty of replay value. Just don't get attached to your ship or crew, as this game has a permanent death system and there is no way to go back and undo what you have done; it's one continuous playthrough that usually takes about 90 minutes to finish.

To give an idea of the decisions that have to be made in this game, here is a breakdown of one of my playthroughs:

- The first jump put me next to a sun, where I fought a rebel scout and had to drain the air from my ship to put out the fires that had sprung up.
- I passed up the chance to help a colony with quarantining its population infected with an incurable disease, because I didn't want to risk my crew.
- In a new sector a slaver that demanded a crew member from me was 'persuaded' by my lasers and missiles perforating his hull to give me a slave instead.
- While I escorted a damaged ship, I found a crystal/ice-coated stasis pod in a derelict. I couldn't open it.
- After I fought off the fourth slaver for the second sector I jumped to Zoltan space, where I hoped to find someone to open the stasis pod for me.
- In a small nebula, an automated scout disabled my shields and blasted my weakened hull into tiny bits.

Soviet Canadian

Lunch

A gust entered through the open window. It rustled the foilage mutely, harassed a feeble potted stalk on the sill, knocked a postcard off the sunlit and cluttered oaken desk, and was extinguished against a tall glass case which loomed opposite the window, but not before it succeeded in rousing the sleeper on the cot in the middle of the room.

His eyes opened. He did not stir. Beneath his crossed arms — he seldom slept thus — was a shabby brown afghan whose voluminous folds concealed not only his rangy body but a ginger cat. The first sound that met his ears was the ticking of his aunt's out-of-beat cartel clock, which hung on the wall across from him.

Tick-tock... tick-tock... He knew he had to level it lest it cease operation. His gaze flitted toward it: the two hands joined sinister for lunch. The man let fly the blanket, mercilessly leaving at his feet the coiled ball of ginger which emitted an offended mew before it uncoiled, leapt, and slinked away. Getting up from the yellowed, sagging cot, he keenly glanced about the room in search of the corduroy trousers he had doffed the night before.

unit

MLP

I have a dark confession to make. This is a deep personal secret that I've only revealed to a few close friends... *looks down at logo emblazoned across my shirt*... and, uh, maybe the whole world. My insidious secret, my guilty pleasure, is that I like the TV show My Little Pony. This poisonous obsession started innocently enough during exams last April. I had heard sinister rumours swirling around the internet about My Little Pony, and I started to get curious. Then temptation struck: My little brother offered to show me an episode of My Little Pony. Three episodes later, I was irreversibly hooked. The timing could not have been more convenient. With exams under way, the 22-minute doses of pony made for the perfect study breaks. But I was still in denial. I told myself that I could stop at any time I wanted. With the exception of my brothers, no one knew that I had watched a show targeted towards 8-year-old girls. I was still safe.

Then one night, everything changed. My parents went to bed, and my two brothers and I went downstairs to my room with a laptop in hand. The lights were off. We thought my parents were asleep. Crowded around that tiny computer screen, the soft music of the opening theme filled the room: "Ahhhhh My little ponyyyyyy..." Glued to that glowing monitor, we traded jabs over our favourite characters, laughed at the silly pony antics, and d'awwed over the sugar-sweet stories. Suddenly, a voice came from the open doorway, "What are you guys doing?" There stood my mother in her nightgown, shaking sleep from her tired eyes. The expression on her face as she beheld her three adult children crowded around a laptop in a dark room at midnight watching My Little Pony was a priceless mix of shock, confusion, and, "Oh where did I go wrong?" The aftermath of this revelation resulted in a couple days of nervous jokes, which eventually faded to an awkward acceptance. I still watch My Little Pony, and while not everyone knows, a lot of my friends are now aware of it. That initial shame when your parents find out cannot be topped by any weird look from a friend. After a while I just got over the awkwardness and decided that I didn't care what anyone thought of my strange taste in TV shows. I also discovered that more people are okay with me liking a show for 8-year-old girls than I would have thought.

My Little Pony may well be the new dark shame in my life, but it also has been a source of great joy and is endowed with one of the most active and creative fan communities that I've ever seen. So let it be a secret no longer. Let me throw my shame to the wind! I will stand tall and say, "I like My Little Pony!" And then I will dress myself in pink and purple and will skip down the street giggling like a little girl.

Blueberry Muffin

Submit your *profQUOTES* to the BLACK BOX (by the Comfy Lounge) or email them to us at mathnews@gmail.com!

profQUOTES

New term, new laughs

People who are allergic to philosophy and foundational questions are going to be forced to see some of it.

– Moosa, PMATH 733

How many of you have had less than four hours of sleep in the last two days?

[One hand goes up]

How many of you have had more than four hours?

[Most hands go up]

Five hours?

Six hours?

Seven?

Eight?

[Most hands still up]

Slackers.

– Paynter, MUSIC 270

Grad students are too embarrassed to come to office hours.

– Geelen, CO 255

[On board] Proof: Easier than the statement.

– Geelen, CO 442

I keep telling myself the visuals are awful, but if this were 1950, you'd be really impressed.

– Maes CLAS 201

If you took this course thinking it's a bird course, you're probably right.

– Maes CLAS 201

Why keep paying your taxes when you can put a sword through the tax man?

– Maes CLAS 201

I don't like lecturing so I'm going to show you pictures of my children.

– Amos EARTH 123

You don't realise how long words are until you're a cripple.

– Knoll PMATH 330

It's all false, so it's obviously all true. What great logic eh?

– Knoll PMATH 330

Ph.D. student in nerd...I mean MATH!

– Knoll PMATH 330

I don't lie in class, only in Calculus, and it's for their own good.

– Knoll PMATH 330

There's a reason we do logic, it's for shortcuts.

– Knoll PMATH 330

Man, you guys aren't as enthusiastic as my engineers. They're eager!

– Knoll PMATH 330

profQUOTES*And so it continues...*

If you weren't good in [ACTSC] 232, you would be so lost – I was going to use another four-letter word, but lost is a good word.
– Skrzydlo, ACTSC 331

I rickrolled my wedding vows
– Skrzydlo, ACTSC 331

Don't vandalize the drop boxes. Maybe I shouldn't give you guys more ideas.
– West, MATH 237

You would have some problem if you're going faster than light, yes.
– West, MATH 237

When something is hard, a non-positive emotion usually follows [drawing a sad face]
– West, MATH 237

It's the first day of class and you're too tired already?
– Ali, ACTSC 372

When I taught this course in Alberta, only 8 students took it. I was babysitting those students.
– Li, STAT 333

I believe most students will copy, no wait – won't copy.
– Li, STAT 333

If you find my office in PAS, you deserve a degree from UWaterloo
– Afros, ENGL 306A

If you ever use the word 'letter' in this class, you have to buy everyone chocolate.
– Afros, ENGL 306A

Murdering, better if you do lots.
– Ward, SE 390

The difference between a prof and a stand up comic is income. Jerry Seinfeld makes a lot more than I do.
– Berry, SE 463

I know it's a Friday night and you're all thinking, 'Gee! I wish I could prove something was a vector space!'
– Wolczuk, MATH 235

[pointing] If you ever want to know what direction time goes in, /that/ direction.
– Paynter, MUSIC 270

[Prof is from Laurier] As a UW student, I assume that you're ultra techno-savvy.
– Paynter, MUSIC 270

N Tough Questions to Answer at the Start of Term

In case you couldn't tell, Waldo is BAD at answering hard questions that involve decision making.

- What clubs do I want to be in?
- What courses do I want to take?
- Why am I taking this course?
- Why am I not taking THAT course?
- Why can't I get IN this course?
- What courses do I have TIME to take?
- Can I make time for clubs AND coursework?
- What do I have to give up to do everything I want?
- Who needs sleep?
- Is this really all I can handle?
- Is this REALLY what I can handle?
- Why?
- WHY?
- **WHY?!?!?!?!?!?!?!!!!!**

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10 Alternative Uses for Pink Ties

OLT unapproved

1. Loin cloth
2. Belt
3. Sexy handcuffs
4. Cat of nine tails
5. Erotic leash
6. Bindings for the bedpost
7. Wear it on a suit to turn on the ladies
8. Hairband
9. Gag
10. Hog tie

!bar

Come Write for mathNEWS

Come to the dark side. We have free pizza.

Every two weeks, a group of people gather in the Mathsoc office and venture forth soon thereafter. Those in the know speak of free pizza, of tasty cookies, and of entertaining conversations. Should you wish to experience Waterloo's Bastion of Erudite Thought, you can show up at 6:30pm on Monday, Oct. 1st in MC 3038. We promise we won't bite.

The Editors

mathNEWS Article of the Issue

No, not this one.

Every issue, the editors will choose the article they like best to win the mathNEWS Article of the Issue award. The writer of the chosen article wins a \$20 gift card for Conestoga Mall.

This issue's award goes to tesseract for his article on page 10, Social Norms. You can pick up your gift card in Mathsoc (MC 3038)

The Editors

horrorSCOPES*As accurate as the weather report*

ActSci: In order to maintain your minimum average this term, you decide to enroll in Real-Time. After all, any course with trains should be easy, right?

Your unlucky number is: 452 ways of saying “nope”.

AHS: You partied too hard during frosh week, and you’re still not 100% over it two weeks later. Driving to campus, you’re pulled over by the cops for nearly swerving into a flock of baby geese. They ask you for a breathalyzer test.

Your unlucky number is: 1.2% B.A.C. You shouldn’t have mixed the Bacardi and the vodka with the gin.

AMATH: In your first assignment, your prof asks you to review integration along a set of curves. You’d rather check out some other curves instead, and soon yourself along a tangent.

Your unlucky number is: 69°

ARCH: You decide to buy some cheap real estate in Sierra Nevada, and build the grandest hotel that has ever existed. The reception area is really nice, but you’ve forgotten to build an exit. Your guests can check out any time they like, however.

Your unlucky number is: 6:08 minutes of awesome, followed by an eternity of purgatory.

ARTS: You’ve paid your tuition, but unlike your friends in other faculties you still have money left over for some fun. You go out and buy the new iPhone, since you can afford it. Then you get your list of required textbooks.

Your unlucky number is: 600\$ refund in the fastest iPhone return ever.

BioInf: You’re told to sequence the genome of the common snipe, but first you must capture one for your sample. Your travels lead you to Peru, where you must bargain with an octogenarian to get what you need to finish your assignment.

Your unlucky number is: An 83-year-old bother obstacle to full marks.

C&O: You arrive late to your prof’s office hour on the sixth floor, since you don’t know which route to take. You decide to optimize and find the shortest path. Unfortunately, that’s why you were heading to the office hour in the first place.

Your unlucky number is: 4 hours on the 6th floor.

CS: You think that after taking concurrency you will be able to more efficiently multitask. After trying to combine work with pleasure at the same time, you decide that doing your assignment on your partner’s back isn’t the most efficient use of your time.

Your unlucky number is: 15 seconds of work done.

CM: Your classes turn out to be really boring, so you decide to model the attention span of the students to the lecturer with respect to time. You realize that it decreases significantly at the point in time where you started to make the model.

Your unlucky number is: -7 slope.

Double Degree: You decide that the Laurier crowd is more fun to hang out with, and spend more time on the other campus. You soon find yourself drinking, partying, and thinking that math is for nerds. In 4 years you will now just get a diploma while everyone else gets a degree.

Your unlucky number is: -1 certificates at the end of it.

ENG: The purple dye still hasn’t worn off from orientation week, and your prof keeps on referring to you as “that purple kid”.

You find yourself being barred from entering the lab because of fears of contamination.

Your unlucky number is: 4 hours of free time.

ENV: It’s your first day at university, and everyone seems so healthy! Everyone is always offering you greens, but look confused when you tell them that you have already packed a salad. You accept one of their brownies though.

Your unlucky number is: 450 calories isn’t a high amount, but the ingredients get you high instead.

Grad: You give a presentation to your supervisor, hoping to impress him with your research. He looks at it with great interest, and asks you how to do those animations on the slides.

Your unlucky number is: 38 hours prep for tech support.

KI: Everyone asks you what your program actually is. You just smirk and say “Please..” dismissively, and get back to remodeling your play-doh. It looks like a tiger now!

Your unlucky number is: 48 month program of fun.

Math Bus: With the NHL lockout in effect, you decide to profit by advertising your new hockey league, the MHL. No one shows up the first game of the season, pitting the ActSci Scythes against the Stats Pointdexters.

Your unlucky number is: 2-1 Stats.

Math Phys: Going bowling, you calculate the exact angle and curvature of the throw that is needed to get a strike. You pick up the ball....and realize that you don’t have the muscle to keep it up.

Your unlucky number is: 30 gutter balls.

PMATH: You’re bent over backwards trying to finish Fun. Anal., but it’s too painful for you to complete it thoroughly. You just feel sore trying to rack your mind for an escape, and eventually you just get too tired to resist.

Your unlucky number is: 2 hours sleep.

SCI: During your geology class, your prof tells you that your TAs rock. When you go to your tutorial later that afternoon, you realize that she’s unusually pale and can write on the chalkboard using just her fingers.

Your unlucky number is: CaCO₃ TAs.

Soft Eng: The new froshies trash the lab. You sharpen the pident and are prepared to ward them off next time they visit.

Your unlucky number is: 68 frosh vs 1 old Eng.

Stats: Only 2 out of 120 students fail Stat 231. Statistically, you’ve already passed!

Your unlucky number is: 1.6% doesn’t seem so insignificant now, does it?

Teaching Option: You spend your summer working at a camp, and remember how pleasant children are. You nearly faint when you see the uncouth barbarians that comprise the Math Faculty for the first time after 4 months.

Your unlucky number is: 122 days away brings a big shock.

Undeclared: You don’t know which clubs to join on clubs day, so you decide to make a club for indecisive people. There is a long line-up for registration, since everyone is always second-guessing their decision.

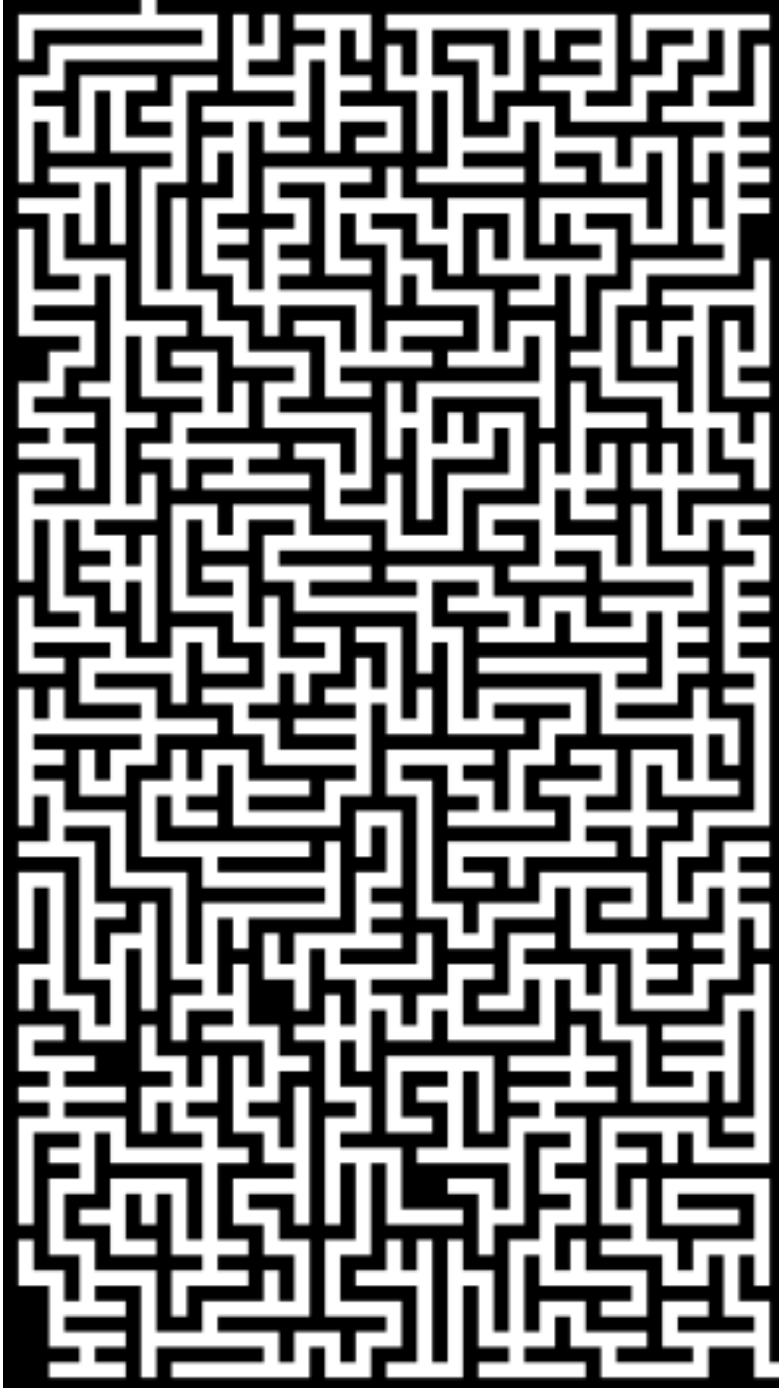
Your unlucky number is: 1 too many decisions to make.

Map of the 6th Floor

Can you get to class on time?

In the tallest point of the fortress known as MC, there lies a labyrinth so convoluted that Theseus himself never made it out intact. Known to most students as the 6th floor, rumors abound in hushed tones that whoever could navigate this maze and exit with thier mind intact would be rewarded with untold fame and fortune, and possibly a better understanding of their coursework. Obtained below is a rough estimate of the layout of this labyrinth, but it still is a nightmare to navigate. Can it ever be solved?

The aMAZEing Daedalus

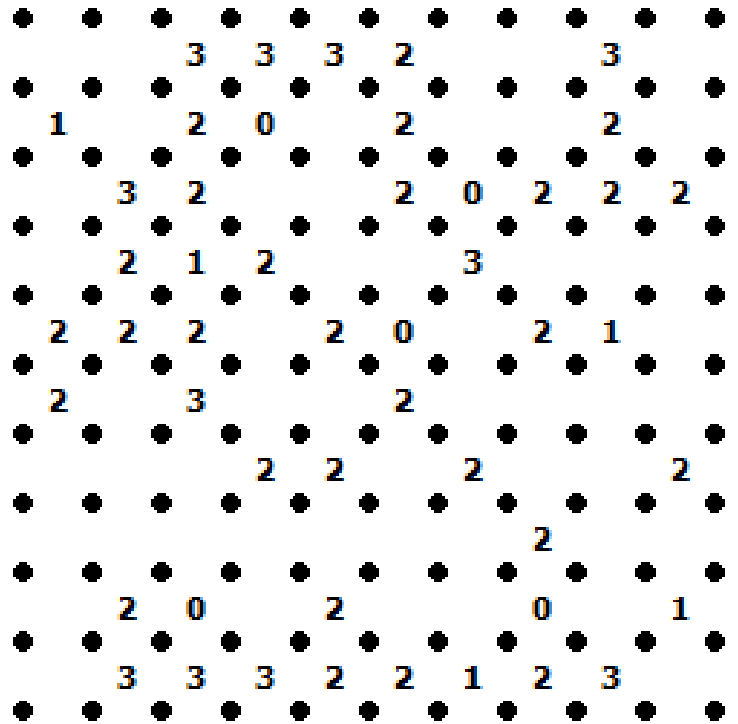


Courtesy of billsgames.com

Slitherlink Puzzle

Good Practice for CO

The rules are simple. You have to draw lines between the dots to form a single loop without crossings or branches. The numbers indicate how many lines surround it.

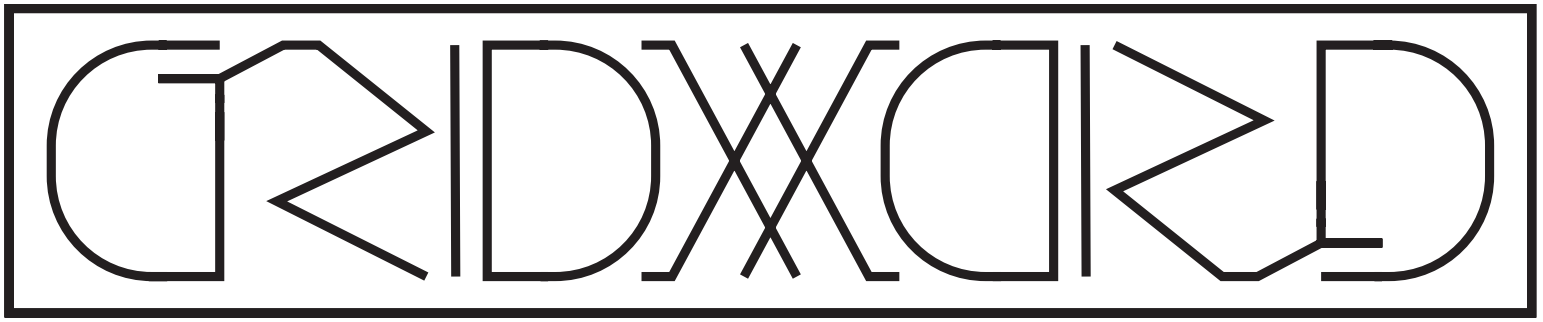


Courtesy of puzzle-loop.com

Sudoku

		3	2				7	
6				5				9
			9	6		2	5	
		6			8			
7	8						3	2
			1			5		
	6	7		2	5			
8				4				5
	4				9	1		

Courtesy of websudoku.com



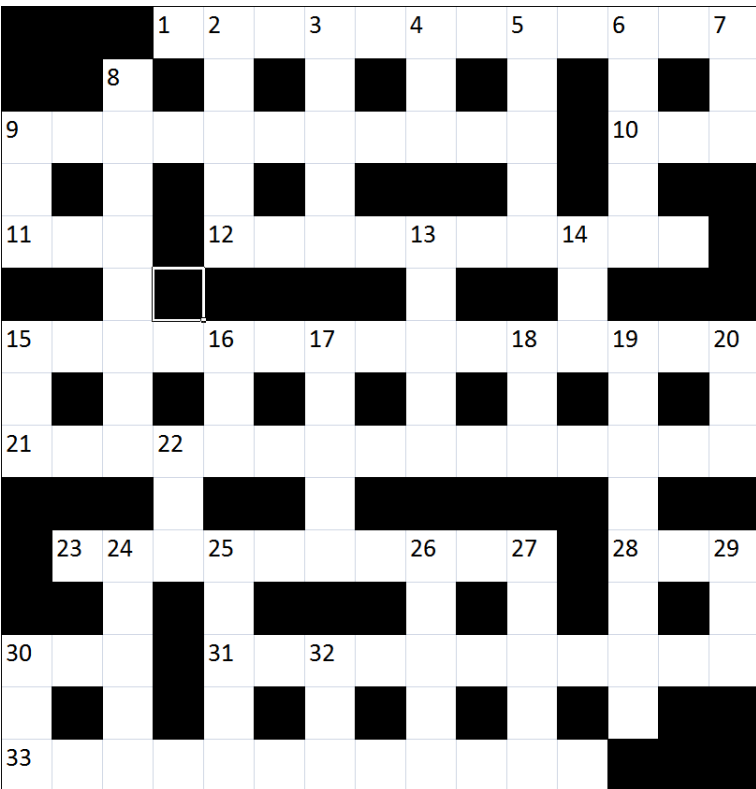
gridCOMMENTS
So begins the *arc...*

Greetings, avid readers! You have arrived at the *gridWORD*, a **regular** *mathNEWS* treat. Put on some reading **lenses** and try this puzzle. It may seem hard at first, but I'm no **lune**-atic; it has some themed clues to help you on your **path**.

This **segment** of the paper is where I detail some thoughts for the week, give some hints to the theme of the puzzle, and announce winners.

Yes, winners! For you see, this puzzle is a competition! Submit your solution to the *gridWORD* in the **BLACK BOX** (outside the Comfy Lounge, MC 3rd floor) before 6:30pm, Monday, October 1st, and you could be crowned *gridWORD* champion of that issue! (Warning: 'crown' not actually crown; 'crown' is prize received from MathSOC office.)

Summoned by **pentagram**,
moment



Straight Clues

Across

1. Gibbous phase's opposite*
9. Very happy*
10. <-
11. Φ
12. Exponent one-half*
15. Goes back to the beginning*
21. Mysterious geographic area*
23. Famous cameos*
28. ~78% N, ~21% O, ~1% Ar, ...
30. Lovelace
31. Smaller LP*
33. Descended helically*

Down

2. Extension of Q with completeness
3. Mistake
4. Adrenaline
5. Third person possessive
6. Exceed
7. 1/0 in Python
8. Gleaming
9. Jump on one foot
13. Linear distance analyzer
14. What scans an image into text
15. Taxi
16. Very little money
17. Russian mountain range
18. Light, bitter beer
19. Related in any manner
20. First lady
22. Bully from "Calvin and Hobbes"
24. Sweet, salty, sour, bitter, _____
25. Religious rites (either privata or publica)
26. Prize
27. Filipino string beans
29. Giant, mythological bird
30. #009AA6 Faculty
32. French woman

R.I.P B2 Green

You won't be missed, everyone who remembers your existence has probably already graduated.