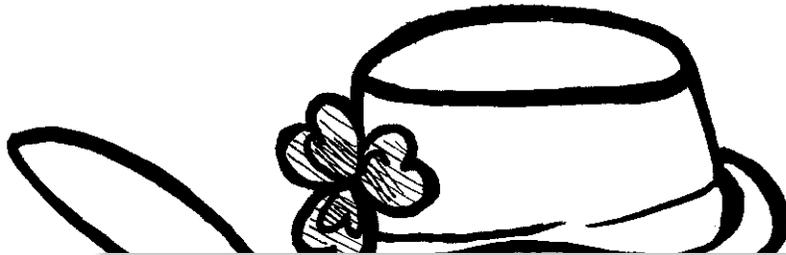


# *math* NEWS

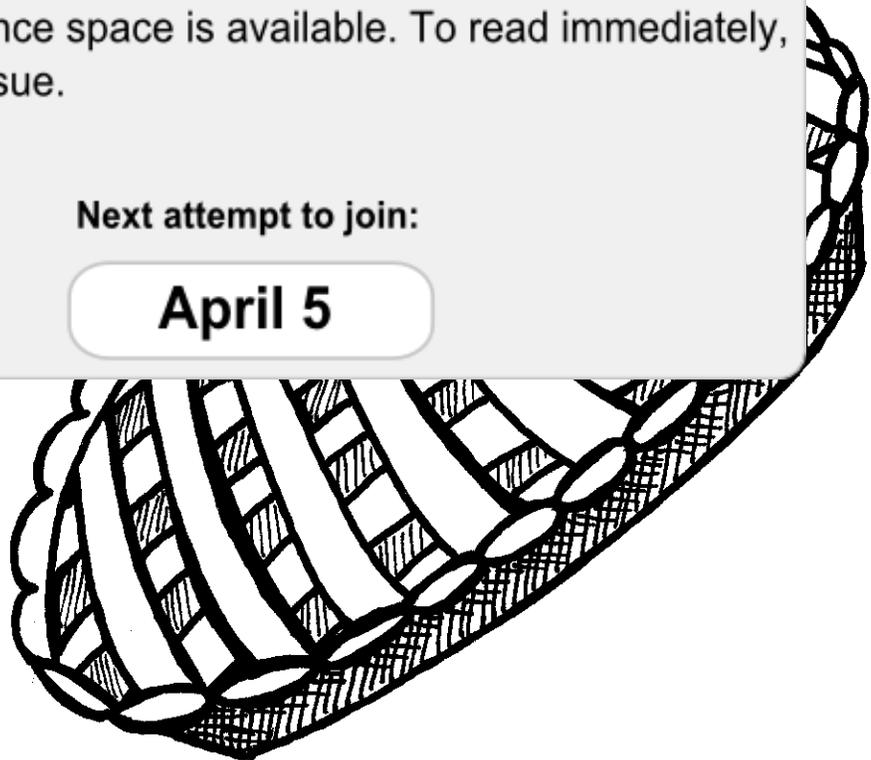


## MATHNEWS SERVER BUSY

Your issue of mathNEWS is experiencing very high volume. You are now in a queue. This issue of mathNEWS will become active once space is available. To read immediately, select another issue.

Next attempt to join:

**April 5**



  
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*Volume 121, Issue 5  
Friday, March 15<sup>th</sup>, 2013*

**lookAHEAD****mathNEWS**

April 1	Production Night #6 Makes a Joke
April 5	Issue #6 Goes to Jail

**MathSoc**

Tuesdays	Games Nights in the Comfy
Mar 15/16	League of Legends Tournament
Mar 21	Pastries with Profs
Fridays	ObjectED in MathSoc Office

**University**

Mar 22	Drop, penalty 1 period ends Tuesdays
Mar 29	Good Friday, No School

**Misc**

Mar 15	Ides of March
Mar 17	St. Patty's Day
Mar 20	First Day of Spring
Mar 20	World Sparrow Day
Mar 24	Day of Remembrance for Truth and Justice
Mar 25	Day of Remembrance for Lies and Debauchery

**mastHEAD**

It should not come as a surprise to anyone who has seen me on a Tuesday that *mathNEWS* has forced me to turn to alcohol as a coping mechanism. It begins on Monday, with corralling a bunch of math nerds into a computer lab to write about the most ridiculous shit, like math and leprechauns. Then I have to fix their articles for content and style. And then there is the spelling and grammar. And the commas, dear fuck the commas. Plus, English isn't even my first language! No, my first language is Shitty English — the language that doesn't give a shit what a preposition is, it just uses them.

Then comes Tuesday. I hate Tuesdays. On Tuesday, I need to spend all day proofing more (yay), copying the articles into the program that makes the paper an actual paper, format the now plain text articles, find glyphs because some now dead elder editor decided to use a typeface WITH NO UNICODE SUPPORT and math needs Unicode, and then finally laying it all out. Let me tell you, dear reader, layout is a bitch. What do you do when your writers don't understand how long a column is? How wide? Suddenly you have random whitespace, you have articles with no coherent common thread immediately next to each other. You have *horror*SCOPES that take over 1.34 repeating pages. You have art that must be compressed and cropped just to fit somewhere. You have all of my goddamned hatred.

Finally, there is Wednesday. On Wednesday, I don't have to do anything for *mathNEWS*. I only have to deal with an 8:30 class and a crippling headache from sleep deprivation and a wicked case of alcohol-induced dehydration and electrolyte imbalance. So, please do something for me, writers: what's your cure for a hangover?

DanInTheHat ("Time Machine to go back to before you drank and stop yourself."), k! ("asdfgljhlk!???"), !bar ("Don't stop drinking the night before."), Beyond Meta ("Be extremely rude so that my unwanted guest stop hanging over."), unit ("Guinness"), theSMURF ("Pre-emptively, by not drinking excessively."), GingerbrED ("Two for one cake at *The Symposium* on Sundays (seriously, it's delicious)."), because\_its\_hard ("Koolaid-vodka."), Element 118 ("2 eggs, poorly scrambled, partially burned (you will need the charcoal), 1 oz orange juice, a pen, and paper. Eat eggs, drink juice, write *mathNEWS*, puke, repeat."), Shay Blair ("Milk, orange juice, apple juice, ketchup, vinegar, and salt mixed in a glass."), waldo@<3.LE-GASP.ca ("Getting lost in a sea of dreams."), MustardMap ("Not be such a little bitch as to get a hangover in the first place."), moment ("Mixed euphemisms and hair of the vodka."), Soviet Canadian ("Get more hangovers until I get used to it (everything gets numbed with repeated exposure)."), himynameis ("No words, just hugs."), (define this (not cool)) ("Morbid obesity, and it's inherent high alcohol tolerance."), Ice Nine ("A cute girl at a family reunion."), ScruffyED ("Wine made from reannual grapes."), Zethar ("I do not think that dragons get hung over, but I heard a concoction of nirnroot and ambrosia nector does wonders.").

("Why are you guys yelling?"),  
ObjectED

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*mathNEWS* is normally a fortnightly publication funded by and responsible to the undergraduate math students of the University of Waterloo, as represented by the Mathematics Society of the University of Waterloo, hereafter referred to as MathSoc. *mathNEWS* is editorially independent of MathSoc. Content is the responsibility of the *mathNEWS* editors; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or *mathNEWS*. Current and back issues of *mathNEWS* are available electronically via the World Wide Web at <http://www.mathnews.uwaterloo.ca/>. Send your correspondence to: *mathNEWS*, MC3046, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1, or to userid mathnews@student.math.uwaterloo.ca on the Internet.

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Trilogy of Trilogies: Sacha Koohgoli (Back to the Future), Murphy Berzish (Lord of the Rings), Lenny Morayniss (Star Wars)

## Actual News!

Inside sources from FedS (namely their public emails, which have now been removed from the site) have alerted *mathNEWS* to the disturbing possibility that one FedS member is being removed after allegedly assaulting another councillor, who has since resigned. I'd recommend you research this yourself, but FedS has tried to cover this up like Watergate.

ObjectED

## VPE Sez

League of Legends tournament is tonight from 5pm-Midnight and Saturday March 16 1pm-Midnight. You can sign up through our facebook page or in person at MC 4020 before the event starts.

Pastries with Profs is Thursday March 21 at 12:30pm at M3 Atrium. This event is going to be Awesome! We have lots of great desserts and professors coming!

Stephane Hamada  
vpe@mathsoc.uwaterloo.ca

## MathSoc General Meeting

The MathSoc General Meeting is Tuesday March 19th at 5:30pm in the MC Comfy (MC 3001). This meeting is a general meeting for all voting members of the society and the highest decision body of the society.

If you are unable to attend, you may proxy your vote to another voting member before Monday March 18<sup>th</sup>. Each person in attendance may hold only one proxy. Forms are available outside the MathSoc office.



## WatSFic Sez

Hello, Mathies! WatSFic (the Waterloo Science Fiction and Fantasy Club) is continuing to meet and host events every week. Our various schedules are:

- We will be hosting our annual D&D tournament again this term on Saturday March 23. It's a lot of fun, with many folks from out of town showing up to play D&D and compete for prizes. If you are interested in participating, you can email [watsfic@gmail.com](mailto:watsfic@gmail.com). Include the word "Tournament" in the subject. If you can assemble a team of five, this will help guarantee you a team, and you will know your party in advance. You can also come to our weekly meetings to register, or get more information. We should have explicit registration instructions by the time you're reading this.
- We are running a book club this term, on "The Long Earth" by Terry Pratchett and Stephen Baxter. If you want to participate, you will need to obtain a copy. The last meeting will be held on Monday, March 25th. Read the entire book by then if you don't want spoilers.
- We will be hosting another HvZ event this term, during March 18-22. Today is the last day to register, so hurry to the Math C&D in MC if you want part of next week's nerf+brain-nomming madness.
- The last movie night of the term is on Wednesday March 27, at around 20:00 in PHYS 150. Movies will be decided at next weeks meeting, so drop on by if you want a say in what we're watching.
- The last two Games Days are tomorrow and Saturday March 30 in the MC Comfy Lounge (MC 3001), starting from around noon.
- RPGA (for roleplaying games like D&D) every Friday at 7PM, in MC2017.
- FNM (Friday Night Magic, for those interested in Magic: the Gathering) every Friday at 6PM in MC2034. This week's events are sealed and standard.
- General meetings every Wednesday at 6PM in PHYS 150. Fun times and important topics are had. Frequently ends in a tournament bracket—figures from the realms of Science Fiction and Fantasy are gathered and pitted in fights to the death, to see who will come out on top.

Daniel Resnick  
WatSFic VP/Minister of Propaganda, W13

## Games SEZ

Everybody loves board games, right? Yes, I'm asking you specifically if you like board games. If you do, show up to the Math C&D\* on Tuesday nights after 6:30 PM, and play games. Also, there will 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.

\* Third floor of the MC, one of the two big rooms along the south corridor

DanInTheHat

## The Sweet and Sour of ELPE

When I came to UW in the year 1905, I chose math because I didn't like writing. I felt this was a safe place to avoid writing. Now look at me; I'm writing an article in *mathNEWS*!

The ability to communicate the cool concepts that you are learning in math right now, with people who may not have your background, is in huge demand. A potential employer may love the amazing grades you have in Calculus, but if you cannot explain what you have learned in a way that they can understand, you may miss out on that opportunity.

So... how can you make sure that these opportunities don't pass you by? Or... how do you explain the really 'sick' concepts of Math 135 to your parents? If 'sick' is good, does this mean healthy is bad?

You can start by meeting your ELPE milestone. Why? Because, it must be completed by the start of 2A (8 completed courses). Otherwise, your enrollment will be blocked, and you will have to see your advisor.

How can you complete your ELPE milestone?

1. You can write the next test on April 10<sup>th</sup>, details at [elpe.uwaterloo.ca](http://elpe.uwaterloo.ca). If you have written this once already I don't recommend you try it again.
2. You can take an ELPE tutorial – a course, offered through the Writing Centre, that does not appear on your schedule.
3. You can take an English course that meets the math ELPE requirement:
  - ENGL 109 Introduction to Academic Writing
  - ENGL/ESL 129R Introduction to Written English
  - ENGL 140R The Use of English 1
  - ESL 102R Introduction to Error Correction in Writing

If you are in 2A, and have not completed the ELPE requirement, you can take any one of the classes above or one of the following courses:

- ENGL 210E Genres of Technical Communication
- ENGL 210F Genres of Business Communication

For more information, see [elpe.uwaterloo.ca](http://elpe.uwaterloo.ca), or drop by and see an advisor.

Best wishes on a great term!  
Riley Metzger  
Math Undergraduate Advisor

**Have *prof*QUOTES? Submit them to the BLACK BOX outside the Comfy Lounge (MC3001) or email them to us at [mathnews@gmail.com](mailto:mathnews@gmail.com)**

## MEF Sez

The Math Endowment Fund (MEF) is currently soliciting funding proposals for the Winter 2013 Term. MEF is an endowment fund operated by the student body with the mandate of funding projects that improve undergraduate mathematics education. One of MEF's primary goals is to give back to math students through the funding of various initiatives. To meet this objective, MEF finances projects such as the purchase of new club office equipment, the purchase of CSCF computer servers, math orientation, and the attendance of conferences (ex. travel expenses and registration fees). Here are more details if you are interested in submitting a proposal or becoming a part of MEF:

### *Funding Proposals*

The deadline for submitting a funding proposal this term is midnight on Thursday, March 28<sup>th</sup>, 2013. Copies of the funding proposal are also available at [www.student.math.uwaterloo.ca/~mefcom/forms/](http://www.student.math.uwaterloo.ca/~mefcom/forms/) for download in .pdf and .doc. However, we require that all proposals be submitted electronically to MEF email address.

### *Funding Council Positions*

There are also student positions available on the Funding Council. The student positions are voting members of the Funding Council and only need to attend one meeting this term during the late afternoon to early evening of Wednesday, April 3<sup>rd</sup>, 2013. At the meeting, the Funding Council listens to presentations by and critiques the proposals of the groups requesting funding. Afterwards, the Funding Council votes on how much funding should be allocated to each proposal. Dinner and refreshments are provided.

Funding Council members are needed for both year reps (3 per year) and for program reps (2 per program). A full list of the Funding Council positions can be found on the MEF website. Nomination forms can be found in .pdf and .doc formats, and are due by midnight on Thursday, March 28<sup>th</sup>, 2013 to the MEF Office (M3 1004). This is a great opportunity to help manage a \$4+ million endowment fund, with the possibility of more involvement in the future (as Director or as a member of the Board of Directors).

If you are interested in being on the Funding Council or if you have any questions, please feel free to email the MEF Director at [mefcom@student.math.uwaterloo.ca](mailto:mefcom@student.math.uwaterloo.ca).

Thank you,  
MEF Director,  
Edison Xin  
Winter 2013

## *mine*CRAFT

Drop your *Minecraft* username in the BLACK BOX to be whitelisted on our server. (129.97.134.134)

## A Plea to All Mathies

*Please do your part*

This term, I've noticed a distinct lack of people in the MathSoc office. I know why: the people who used to occupy that office at all hours have left. They've moved on to bigger and better things, like graduation, or co-op (seriously, one of the two office managers, and lover of the office, has been in school for 7 straight terms, and is FINALLY on her first of a double term), or the *mathNEWS* office (when I got promoted to editor, I slowly became more interested in being in my own office, rather than MathSoc's).

You've all noticed it too, I'm sure. You've gone to get an assignment stapled, or a calculator approved, and no one was there. You've been forced to use media.doc for your printing needs, with their ridiculous fees of 11 cents a double sided page, instead of 10. And if you want to play board games? Well, I hope you brought some from home, since you can't borrow any. The number of times I've gone by that office on the way home, only to quickly step in to save some sad Mathies' lives by approving their calculators the day of a midterm, is astonishing (once).

Another key issue is worker apathy. You, dear students, don't seem to remember that the people behind that desk are volunteers. Every single one of them. So when you harass them, get angry at them, write mean things about them on OMGUW, all you manage to do is make them not want to show up. This isn't

## Ptau Day

*A reasonable compromise*

So, the so-called Pi day was yesterday, and this brings up a sore political issue within the mathematical community – the  $\pi$  vs  $\tau$  debate. Many arguments have been put for both sides, and riots and pie fights have broken out over the issue. As I sit here cleaning the rhubarb off my face, I believe I come down squarely in the  $\tau$  camp, but the  $\pi$ ists have a good point: Pi Day sounds way more awesome, because you get free pie. What a dilemma.

However, I believe I have the perfect solution: just interchange the roles of  $\pi$  and  $\tau$ ! Bear with me. For the purpose of the remainder of this article, I will refer to the number currently referred to by  $\tau$  as  $O$  and to the number currently referred to by  $\pi$  as  $0$ . Now,  $O=2*0$ , and  $\pi$  has twice as many legs as  $\tau$ , so it is patently ridiculous that  $\tau$  should refer to  $O$ . Further,  $\tau$  is already used for the important golden ratio, so we really shouldn't overload that symbol [*Dear math: I already have  $\phi$  and  $\Phi$  for 1.618. STOP GIVING IT MORE LETTERS — ObjectED*].

By referring to the value  $O$  by  $\pi$ , we get all the benefits of thinking in terms of  $O$ , but we get to keep our symbols reasonably not overloaded, keep using the symbol  $\pi$  for the circle constant, and, most importantly: we get to keep using Pi day.

So long and thanks for all the  $\ln(-1)/i$ ,  
DanInTheHat

high school, and none of us are convicted felons (well...most of us): there are no state mandated volunteer hours we have to uphold. Council (yes, we have a Math Council. They wear dark cloaks and discuss real issues. More accurately integer [I'm sorry]) members used to have to hold office hours to talk to their constituents, but no one arrived for that, and even if they did, MathSoc wasn't the place to be discussing whatever it is you're whining to your councillor about.

The long and short of it is this: I know, for a fact, since I make someone else order our newspaper, that we have over 1000 readers on campus. If every single one of you got office trained (it takes less than an hour) and sign up for one office hour in the MathSoc office (not even recurring), we'd have enough workers to keep the place open from 9-5 every weekday for the rest of the term.

And I already know that so many workers are signed up and skipping their hours. To you, I ask, why? Is it the lack of appreciation? Because I appreciate you. I really do. Never mind that I have my own goddamned key, and if I want something out of that office I can get it. I genuinely appreciate what you (should be) do(ing). In fact, I'll put my money where my mouth is: every Friday, 3:30 to 4:30, I'll be there. Starting, of course, today.

ObjectED

## Let's Talk About Discrimination

*Sentientism at its worst*

While people would generally agree prejudice is wrong, there's a group who is so oppressed that we've become complacent with this wrong, if not downright complicit. Googling this minority will get you countless hate sites devoted to inflicting violence upon them. Stories of this group being shot merely because some psycho with a gun thought they look suspicious have become common place. Even the government discriminates against them, banning them from donating blood and claiming that they're diseased.

Well, enough is enough. It's time to speak out against this wrong. Zombies are people too! They deserve to have rights just as much as humans. After all zombies and students aren't so different. Is it not the life of the student to relentlessly pursue knowledge, or, as one might say, brains? "Pale and with a lethargic walk," is this not the description of your average sleep deprived student [*You forgot the moaning -- ObjectED*]?

Students, I ask you to do what's right and stand up for the rights of zombies, your kindred spirits. That's why I'm declaring next week as zombie rights week. Hug a zombie and wear a bandanna to show your support.

Living, but tolerant  
Beyond Meta

## North Korea Makes a Drastic, Unprecedented Move that Shocks the World

**Japan, March 13, 2012** – With its history of erratic and aggressive behaviour, the world has mostly dismissed North Korea as the crazy, drug-addicted cousin that occasionally mooches for food. However, its recent statements, coupled with its alleged development of a nuclear weapon, have put the country on the international radar. Earlier this morning, Kim Jong Un surprised the world with an completely unprecedented statement that has analysts baffled. His announcement, translated, is shown below:

“The United States and South Korea have joined forces to destroy our economy and Great Nation. This can go on no longer, and we will be forced to retaliate.

Given that we have the superior position with our Great Missile of Destruction, we will give Seoul and the Americans a fighting chance by challenging them on an equal (stifled laughter) battlefield. To resolve this conflict, we challenge the Americans to a game of their own: a battle on the Fields of Justice.

I, Glorious Leader Kim Jong Un, will play all 5 positions against the Americans, in a best of five, and if I am victorious you must lift the sanctions and provide us with food.”

Yes, the “Great Leader” of North Korea just challenged the world to a game of *League of Legends*. This is a surprising turn of events, since previous reports indicated that North Korea had a total of four computers. Nevertheless, the challenge is being taken extremely seriously, and North American and Korean teams have doubled their practice schedule to prepare themselves for the upcoming battle.

Kim Jong Un was unavailable to make further statements.

theSMURF

## Staircases, Elevators, and Bad Layout

We here at *mathNEWS* are dedicated to providing you with the best content possible in an engaging and highly readable format. Sometimes, however, the age old issue of similar content next to each other versus similar sized columns comes forward, like an angry uncle who was left out of your grandmother's will after deciding to become a "rock star" and sleep with 13-year-old girls.

The problem is evident, I'm sure. Writers, the special little snow-flakes that they are, refuse to work together and make sure their word count and general article size is at all similar to each other's. The end result being, of course, that every article is uniquely sized, and unless I decide to apply excessive and cruel editorial power, there is nothing I can do. That's where filler comes in: it helps randomly sized articles appear cohesive and well thought out. Like *mathNEWS* is either of those things.

## Spring Arrives on Time

*Wiarthon Willie found dead*

**Wiarthon** – Police discovered the frozen body of Wiarthon Willie, the local rodent prognosticator, hanging from a weather vane on Tuesday morning, to the shock of passers-by. Willie, famous for his once-accurate prediction skills, has been rumoured to have fallen into a depression after botching his weather reports in the last few years.

Willie (née The Cleft Rodent Wiarthon Theodore William III), first rose to success in 2004, when he successfully predicted spring arriving on time. He then called the early springs of 05-06, and the surprise blizzard of '07, defying the forecasts of meteorologists. Riding on his wave of success, Willie was contacted for many sponsorship opportunities, from Breyers' Frozen Willie dessert to the now-ubiquitous Blowing Willie line of weather vanes.

“Willie was a great hog,” says Phil Conners, the late ground-hog's housekeeper. “Although he had achieved his dream of superstardom, he remembered his roots and always made a point of returning back to his hometown whenever he could. He gave a lot of money back here, and put Wiarthon on the map.”

Sadly, Willie's fame was destined to be as short as the historic slush winter of '37. From 09-11, he incorrectly predicted the onset of spring. His sponsorship and endorsement deals were dropped, and Willie soon turned to drugs and depression. Local residents recalled seeing him hanging about on street corners, burrowing holes, eating catnip, and chattering on to himself.

“This year was the last chance that Willie had. If he couldn't predict it right this time, he was gone. Creditors have been calling him for months, and his burrow was recently foreclosed.”

Spring arrived on March 20<sup>th</sup>, 2013. Willie was off by six weeks.

!bar

Being tired of coming up with clever filler (and all the other editors are too busy with school work [I have three assignments and a midterm this week, but someone has to bring the funnies]), I've decided to use this ever decreasing space on this and it's facing page to rant about, well, ever decreasing space. I call them staircases.

"But ObjectED! Why don't you just switch the order of the articles so you don't have a 'staircase?'" I hear you cry.

Well, I couldn't rant otherwise, don't you see? (Well, you ask a silly question, you get a silly answer.) From these columns, you then use one over-extended Tom Lehrer allusion.

Why do I hate staircases so much? For one, they're hideous. Both in *mathNEWS* and in real life. Here, they just have this awkward eye drawing effect that screws with everything. The psych student in me hates it. The UI student in me wishes I

## WayBack Machine Set In Reverse

*Dozens hospitalized due to the MIDI onslaught*

**California** – Due to a disastrous error by one of the site’s engineers, famed internet archive and time capsule, The WayBack Machine (<http://archive.org/web/web.php>), was set in reverse, unleashing its extensive archive upon the modern internet.

Users navigating to their sites were redirected to earlier versions, leading to chaos and bleeding eyes and ears as purple font on black redominated the world wide web. Navigators to Ask.com were greeted by a butler, long presumed dead. Google users were told that they were using a “beta” product of the search engine that only indexed a paltry 4,568,724,709 web pages. As of press time, geocities.com was back up and running, with personal blogs dedicated to pets and plastered in seizure-inducing gifs and garish visitor count buttons.

Until this problem is fixed, authorities have released a report outlining the following safety measures for users:

- Set speaker volume to low (preferably muted) when web browsing. Hospitals are already overrun by patients with bleeding ears due to a surprise blasting of “Who let the dogs out?”
- Be wary of news sites and keep a sharp eye out for what is current news and what is history. Y2K has already happened. Sony’s revelation of their new gaming console has not.
- Depending on how the machine is operating, YouTube may or may not be operating at full power. Users are warned that Sir Mix-a-Lot’s “Baby Got Back” is in no way identical to Justin Bieber’s “Baby”.
- Be sure to have some sort of ad blocking application active at all times, or computers will crash due to chain reactions of opening and jiggling pop-up windows.
- Although Kazaa and Limewire are back online, their links may or may not be dead, and the live ones may or may not still contain Trojans targeted at Windows 98 users. Download “Rat Race” carefully.
- The WayBack Machine keeps an archive of the internet only. Firefly and Arrested Development are still off of the air.

In related news, Apple.com still contains the same text advertising for different products, confirming industry suspicions that the site redesigns consist of nothing more than an updated stylesheet.

Big Mak

could just write a J-Frame to hold it all.

Staircases in real life just remind me of work. I hate work. We have pulleys and levers to minimize work (shut up Math Phys). That’s what separates us from the animals (except corvids), and that’s what elevators use. Well, pulleys at least. If only there was a text pulley, I might actually be able to do layout better. Stupid NP-hard problems, which MathSoc should really sell on boxers. I’d buy it, and I don’t even wear boxers.

## Leprechauns on Strike

*St Patrick’s Day postponed*

**Waterloo** – St Patrick’s Day preparations were postponed this morning by a band of picketing leprechauns, protesting the annual Irish holiday. Representing the 417th district of the Fairytale creatures union, the leprechauns have stated that they will be holding demonstrations all around the campus until their demands are met, or until March 18th.

Tommy O’Finnigan, the head of the group, has been a very strong advocate for the legal rights of folk legends and kindred spirits. “Well boyo, what’s been happening to us leprechauns has been shameful, it has. I first found out about our sorry state after my buddy Seamus was mugged by a group of drunk clover-wearing college students. We went in to the hospital for help, but the daft nurse wouldn’t let us in because we couldn’t produce a valid health card or show proper insurance. Turns out that even if you’re a mascot for a centuries-old holiday, when it comes to getting reimbursed they don’t give you two pieces of gold to rub together!”

O’Finnigan and his coworkers have said that they will do all they can to prevent celebrations and merriment on March 17th until the following demands are met:

- Only Irish citizens or people who have lived in Ireland for more than three years may wear a “kiss me, I’m Irish” shirt. Any other persons caught should be rendered sterile through injection.
- Every 4-leaf clover picked out of the ground should have another planted in its place, for sustainability issues.
- Insurance against theft of the pot of gold found at the end of each rainbow.
- A pension of three pints of Guinness per day, with an additional 5 pints on St Patrick’s day.
- A guaranteed education package for all children of employees, including reading, writing, arithmetic, how to blow smoke rings out of a pipe, proper methods of cooking potatoes, intermediate bar-brawling, and advanced ring theory.
- Health coverage for any wounds received with broken glass.
- A minimum of two weeks of paid vacation, and time and a half for working on St Patrick’s day around universities and colleges.

!bar

Hurray for *mathNEWS*, *ma-a-athNEWS*. It won’t you do a bit of good to read *mathNEWS*. It’s so simple, so very simple, that only a mathie could write it!

ObjectED

## 10 things I never expected to happen at UW

1. Potential gun violence. Semi automatic rifle and Frankenstein mask? Let me just lock myself in my room forever.
2. All the Canadian geese and their poop. I mean, it is Canada, but they're everywhere and I definitely expected them to leave at some point
3. A guy asked me to protect him while walking home on a dark night. I'm a girl with no muscle tone and even less ability to actively hurt someone. If you expect me to protect you, we're all going to die
4. Getting a sousaphone, a 30 lb brass instrument, into a tree. And then safely getting it back down
5. Fitting 18 people into a shower along with a camera-person. We're all a lot closer after that experience.
6. Getting the band into the pool with 20 some instruments and being able to play underwater.  
(if you're interested in being part of awesome shenanigans such as items 4-6, join Warriors Band!)
7. Good sports teams, our men's hockey team [*We have a hockey team? -- ObjectED*] made it to the finals? Say what?!
8. The massive fan base for LoL and WoW and DnD and any other three letter palindrome games that I still don't quite understand
9. The increase from a 1% asian population in high school.
10. Getting lost coming back from Laurier. I was new! It was raining and dark! Directions are hard.

wibz

## What're You Drinking? Or Judgement from a Drunk

With St. Patty's Day fast approaching, I get to bring out my Irish heritage. (My great grandmother had a "Mc" in her name. Another great grandmother had "Mac." I'm glad I missed those awkward dinners.) And I get to pretend I'm better than all of you culturally-appropriating plebeians who just want an excuse to get drunk on a Sunday.

I've found that a (wo)man's choice of drink on St. Patty's Day says a lot about them as a person. Since I consider myself a judgmental old coot, let's see where you fall:

- *PBR*: You hipster. Why are you even drinking on a drinking holiday? Shouldn't you be taking pictures of leaves with fake sepia-tones and posting it to Instagram and Tumblr instead of doing something so mainstream?
- *Bud, Coors, Molson*: You and the boys going to watch a football game? Is there even football in March? Go get some balls, and drink some good beer.
- *Microbrews (Waterloo Dark anyone?) or Non-Irish Imports*: You like beer, and like it enough to not change your tastes for some silly holiday. One the one hand, I approve. On the other, IRISH PRIDE!
- *Guinness*: I guess it counts. Move along.
- *Scotch*: Much like rain on your wedding, it's neither ironic nor a good song.
- *Irish Whiskey*: A (wo)man after my own heart. Get tossed off on the good stuff (remember, it means "water of life") and be a true Irishman.
- *Bailey's Irish Cream*: Close enough to whiskey for horseshoes (a *Lucky Charm* — coincidence or providence?)
- *Vodka*: While the Irish are famous for potatoes, drinking vodka ends up just a horrid reminder of the famine. Unless you're serving it alongside some poor children, you're just a desperate drunk.

I've got my bottle of "Writer's Tears" all lined up!  
ObjectED

## A Retouched Photo from a Math 237 Whiteboard

$$\lim_{(x,y) \rightarrow (0,0)} \frac{|x|^{1/2} |y|^p}{(x^2+y^2)^{1/2}}$$

Let  $y = mx$

$$= \lim_{x \rightarrow 0} \frac{|x|^{1/2} |mx|^p}{(1+m^2)^{1/2} |x|}$$

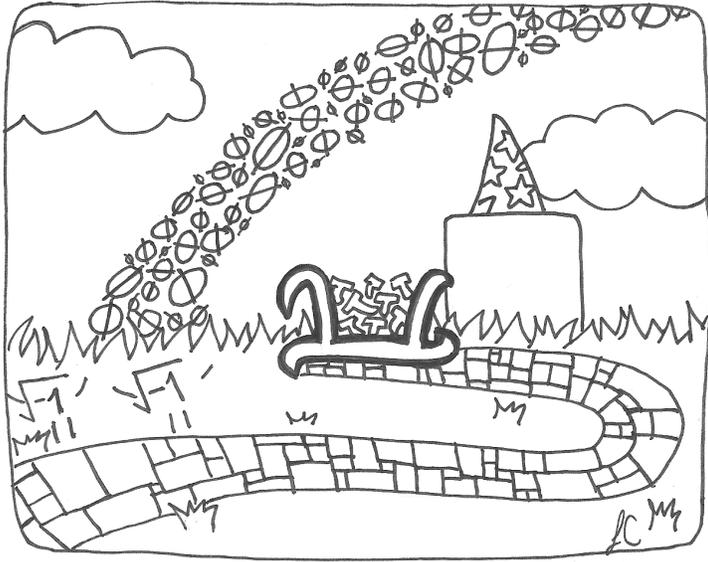
$$p > \frac{1}{2} \quad \lim \rightarrow 0$$

$$p = \frac{1}{2} \quad \text{no.}$$

$$p < \frac{1}{2} \quad \text{EIFS.}$$

## Happy Integral Land

Some time in the last few days, I found myself somewhere between being awake and asleep, and in this state I traveled to a magical place. When I arrived, I was greeted by the denizens who informed me it was called “Happy Integral Land”. The denizens, who seemed to be small lower case i’s, did not seem entirely real. They instructed me that I needed to visit the Wizard of  $\int$ , and to do so I would need to follow the Squared Prime Road.



As I traveled the Square Prime Road I saw a beautiful rainbow, in every shade of  $\Phi$ . Like in a dream, I slowly floated upwards towards the rainbow. As it integrated, it slowly moved away to reveal an upside down  $\pi$  filled with golden  $\tau$ . Intent on bringing these golden baubles with me when I returned home, I greedily snatched them up.

I eventually awoke in the Comfy Lounge, unsure of how I returned. And even more confused of how my assignment had been completed, with the footnote “contributions by the Wizard of  $\int$ ”.

Because\_Its\_Hard

## The Institution of the University

As a school, the University of Waterloo is fairly young—only 56 years old. Most of us have a notion of what a university is as a school of higher learning, etc. But what else does our university and other universities have in common?

Generally, universities are semi-independent at minimum. That is, whether or not their funding is provided by governments or private donors, a university is generally accepted to not have overt influence over its research. Furthermore, the research members of a university should have a large amount of independence; though they will not necessarily be funded, this should not limit them or have people investigate their private affairs.

These two major points, while they may slightly vary, are generally what define these clusters of learning people. However, two incidents have recently raised my ire and reminded me that these definitions are not a constant, and that our institutions will likely come under attack as societies shift in values.

## Why you Should Use Spell Check

Have you every had thin problem? You fork for such a long tome on your easy, pauper, rapport, or assign mint, and your prof easier gives it back filled with read Mark. Whey?

What you Ned, my fiend, is a spall checker. It will check all your wards and make sore everything’s rite. Its the best frond of a carless speller. It was seven fix your grammar! If you sentence a wrong construct, it know!

it won’t flicks everything thigh. If forget a word, it won’t know what mean. Watch opt for similar wards, it can’t red muds.

Overall, spall chic is realty helpful. Just lock at this article! [I hate you so much right now — ObjectED]

Burs in Confucius,  
shay lair.

## Sports Keywords

In lieu of a full article, I present to you some keywords which you could stand to know as a (or an unwilling) participant in a sports conversation, in a list of a sentence, completely unsorted:

Grit, determination, cliché, scrap, heart, injury, stats, off-side, play, penalty, suspension.

On second thought, this could be perceived as in perfectly sorted order in the list “Important Things About David Eckstein”. Up to a point, anyways; there’s no offside in baseball. That said, keeping yourself healthy should be a goal! I missed writing a full article because I had a splitting headache, and slept instead.

Injuries => Not writing for *mathNEWS*. Let this be a lesson for you all.

Happy Sporting!  
Scythe Marshall

In the University of Alberta, the current education minister wants to standardize curricula and focus research on commercial applications rather than pure research. This focus may be commendable, but a large portion of research is already focused as such. They then effectively become the dogs of the province, which is problematic and then reduces the school’s credibility for independent research.

Furthermore, at Harvard, the administration has recently been caught snooping through private correspondence of researchers. This obviously is just problematic for the ability to be unique in research and confidential with other researchers.

In closing, I get angry at governments and school administrators, and I don’t know how we should fix this. Anyone have thoughts? Please submit stuff to the **BLACK BOX**.

## elseWHEN

### *Alcohol edition*

Way back in 2007, mathies were quite a rowdy bunch. They did things like give dating advice, kidnap *mathNEWS* editors, and imbibe alcoholic beverages. Shocking, I know. Mathies probably also do things like have sex and stuff too. Not that I know, of course.

With St Patrick's Day right around the corner, we feel that some students may feel pressured to take part in drinking, and it is up to us to give some recipes for proper drinks. Feel free to experiment around with them, and have a fun weekend!

!bar

## Pink drinks

I was sitting at home one evening, contemplating my love of pink and my love of alcohol and I realized that there are very few common pink cocktails. This is, of course, a serious problem, and I hope that, as a result of this article's publication, fine establishments such as the Bombshelter Pub will begin offering at least one of these cocktails.

First we have a few pink cocktails culled from [webtender.com](http://webtender.com) that run the gamut from classic bitters to places unknown:

### *Pink Gin and Tonic*

Ingredients:

- 2 oz Gin
- 5 oz Tonic water
- 1 splash Campari
- 1 wedge Lime

Mixing instructions:

Pour the gin and tonic water into a highball glass almost filled with ice cubes. Stir well. Top with Campari and garnish with the lime wedge.

This pink twist on a classic is always the way to go for the gin-drinking mathie, especially one with a taste for bitters.

### *Pink California Sunshine*

Ingredients:

- 4 oz chilled pink Champagne
- 4 oz chilled orange juice
- 1 dash Creme de Cassis

Mixing Instructions:

Pour the Champagne into a frosted cocktail glass. Add the orange juice and Creme de Cassis.

This drink vaguely resembles a Kir Royale, but is much better with a sweeter Champagne (the author doesn't have a good recommendation) and is a good summertime appetief.

### *Pink Russian*

Ingredients:

- 1 shot Tequila Rose
- 1 shot Kahlua
- 1/2 shot Vodka
- 2 oz Milk or cream

Mixing Instructions:

Pour ingredients into a shaker half full of ice. Shake and strain into a lowball glass.

For years, bartenders have discriminated against the other colours of light and provided only Black and White Russians. This author thinks it's time for the oppression to end, and is boldly offering a new colour of Russian (full disclosure: this too

came from [webtender.com](http://webtender.com)) for bars to offer.

Now these variants on old classics are a great step in the right direction but this author thinks that Math needs its own cocktail — something special, first seen here in the pages of *mathNEWS*. Before actually revealing the master cocktail (you can skip to the end if you want) we must establish some of the properties of a drink that would do Math proud. First, it must be named after the Tie, and the simplest name satisfying this criterion is “The Pink Tie”. From the name we can derive some of its properties. Another class of beverage known as a Horse's Necktie is ice cream blended with soda. From this, and the fact that the drink must be pink, it can be determined that the ice cream flavour is strawberry and it should be blended with a red liqueur. A great liqueur that goes with strawberry flavours is Chambord raspberry liqueur. So we have a base for the drink, that is strawberry ice cream and Chambord blended, but this combination lacks flair. Floating Cinnamon Schnapps over the mixture goes most of the way, but for those who would like to die there is one final step that I am omitting from the final recipe. Dissolve lithium salts (LiCl) in 95.6% ethanol (Everclear or similar) and float over the drink prepared as described, set on fire. Thanks to the lithium salts the drink will be topped with a beautiful pink flame. The only downside of this last ingredient is that LiCl on its own is rather poisonous, and one of the products of the combustion is  $\text{Li}_2\text{O}$  which is also toxic.

With the properties of the drink derived (as that's how Math does things) I submit to you the recipe for a blended cocktail known as “The Pink Tie”:

### *The Pink Tie*

Ingredients:

- 4 oz Chambord Raspberry Liqueur
- 1 scoop strawberry ice cream (not sorbet)
- Cinnamon Schnapps
- Starfruit slice
- Fresh Raspberry

Mixing Instructions:

Blend Chambord and strawberry ice cream, pour into a Margarita glass (or really, any glass that will hold it) rimmed with powdered sugar that has been shaken with a bit of red food coloring to make it pink. Float the cinnamon schnapps on top of the blended mixture. Garnish with the starfruit slice and raspberry.

I'm done for now; hopefully the fine local establishments and amateur bartenders will pick up these recipes and come to cherish them as I do.

*mathNEWS* bartender

## Lend Me Your Ear

Many people say that a life without music is like a life without curiosity, that the sounds we hear are as essential to us as our most basic of needs, and that music tends to a desire no different from our cravings for sweet foods and physical pleasures.

Different people have varied opinions as to what music meets their needs. For instance, pop music — which is mostly repetitive, has a high turnover rate, and has a very large receiving audience — satisfies many people. Sometimes, all it takes is a simple and repetitive rhythm to satisfy someone. Other times it is a complex symphony of sounds, with many different rhythms and sounds woven together. So why, then, would anyone not listen to music if it is such an everyday desire?

If someone can and always chooses not to listen to music then there are only two possible rationales. This person either does benefit, be it pleasure or otherwise, from listening to music or satisfies that musical need through some other means. Maybe it is the chirps of birds, the soft grinding of stones from a passing train, the whispers through the snow-laden boughs in a mid-winter's breeze, or the crunch of fallen leaves beneath the feet that satisfies this hunger for sound. Man-made music is not the only musical thing, after all.

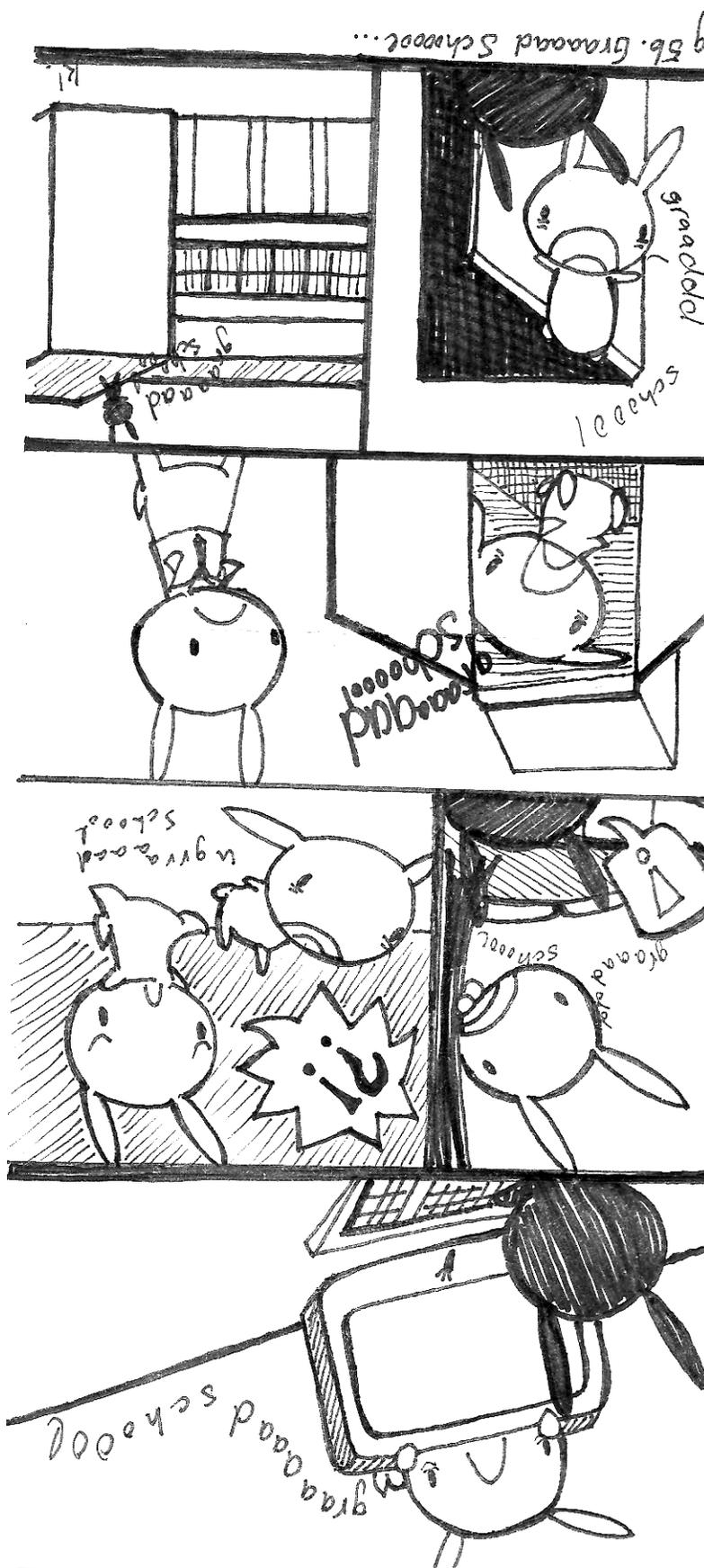
Music, however unique, is a common ground between people. If I listen to music and you listen to music then we should have always have a topic handy to discuss. Sure, we may dislike each other's preferences but we can still use it as a reason to communicate, to share a part of ourselves, and we probably know about each other's general types of music.

Could we instead talk about the sounds of nature? Birds chirp the same chirps and tweet the same tweets they have been chirping and tweeting for thousands of years. Although everyone hears birds chirp, few notice, and fewer still actually listen. Maybe it is a result of the fast-paced society we live in or that no two people hear precisely the same bird, but talking about the sounds of nature does not appeal to people the same way music does. It lacks that familiarity brought about by the structure of music. As was mentioned earlier, we probably know about each other's general types of preferred music; I doubt we could as quickly understand each other's preferred bird call.

The next time you encounter someone who does not listen to music, instead of a giving a quizzical look, ask a question. Find out what it is that you are missing out on. Listen to something you hear every day.

Respectively yours, and tone-deaf,  
Element118

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**or in person (MC 3030)!**



## Lent

*An Article that Belonged in Issue #3*

Though it might have missed the attention of many of you, Lent will end by next issue. Every Lent, Christians are encouraged to forgo privileges, luxuries, or comforts in their lives as penitence, and to commemorate the death and suffering [*How morbid — ObjectED*] of Jesus.

I have observed that for many Christians, their faith is a great source of comfort to them. Thus, in the spirit of penitence, I would suggest that they give up their Christian faith for Lent. This would allow them to experience the withering suffering and loneliness that plagues non-believers for their entire lives.

## N Signs you KNOW you're Old

*Waldo is starting to wonder, where did the time go?*

- You keep referring to Zellers as a business that is still open
- Pluto is still a planet
- You find yourself saying, “what’s WRONG with kids these days?”
- You stop as you approach a staircase thinking, “how will this affect my knees?”
- You visited Mel’s Diner in the University Plaza BEFORE it burned down
- You start worrying and/or finding grey hairs
- You reminisce about TV shows you used to watch
- Someone asks you, “do you think you’re old?”
- Forgetting that construction on campus in certain areas ended and those pathways are now free to walk through
- You remember seeing the Natural Log prior to it being stolen
- MC hosted the Pink Tie
- Your frosh are now FOC
- People are impressed by your connections
- People know more of you than you know of them
- You are reminded of something you forgot about many terms/years ago
- Nothing really surprises you anymore
- You miss the people that have moved on
- Sometimes you just get that feeling

waldo@<3.LE-GASP.ca

## My first filler

Holy shit, I get to write a filler! I don't even know what to put here. This UI is pretty weird and confusing. My goodness, I'm so flabbergasted. This is like when I wrote that article that AC-TUALLY got published on *mathNEWS*. Wow. I never imagined getting this amazing space to fill with my words.

No expectations for a good article, I've already been paid in pizza, and it's that point in production week where the editors [*Editor. Singular — ObjectED*] are tired and have mostly stoped giving fucks. I can do anything here! I can curse, write inappropriate material, release proprietary information that I'm legally binded to not release due to NDA's, and much, much more.

Hell, I can even write this naked. This is amazing.

Sorry about that, I got side tracked. I actually had something important to say, and it's pretty interesting stuff. Here it is:

## Playing Chicken

tesseract

So I had this thing, this very important thing, which I simply did not want to do. It was not university related, I was not afraid of it, it was not offensive or controversial, and I could very easily do it, it was just... just an everyday, run of the mill thing that I really did not want to do.

The question I would ask myself continuously was: why? Why do I really not want to do this? I know I should, I know I need to eventually, so why not now? I really began to question my motives for everything, and in a matter of weeks I was entangled in a web of languished reasoning. I had deceived myself into a logical basis for why I should not do this thing. So it went on for years.

Once in a blue moon I would awaken from my slumber, intent on accomplishing this and that, but they would all be meaningless in comparison to that one thing. The question still hung over my head at every waking moment: why not?

I learned to ignore it, move on with the rest of my life, and still feel meaningful accomplishment when I completed other tasks. It would daunt me from time to time and I would refresh the cycle with new reasoning. I achieved a point where this very important thing was downplayed to the point of being a nuisance, something that did not need to be done at all but nagged at my conscience for no good reason.

An aptitude for laziness is one of mankind's greatest treasures; it motivates optimizations, conserves energy for when and where it is needed, and its bountiful consequences provide many a thesis for the health sciences.

A fool I was, a fool I am, and a fool I will be. Ringing through my mind came the thought: if I did not do it now, I would be forever trapped in this downward spiral of nothingness, bringing to fruition my own demise.

I did not do it; how am I here now? As it turns out, I was wrong. I may be a fool forever but how that is an impediment to my doing anything—well, I never really reasoned that part through. It hurt to have my entire mind unraveled by an exception in a single thread. I knew I should have used a multithreaded approach but something held me back: that little corner of my mind that always knew the inevitable; that knew someday I would do this thing; that had kept me in check. I am still a fool but a little bit wiser of a fool now.

~wayWard~

# Actuaries and the Zombie Apocalypse

*Ensure that you're properly insured*

As the soothsayers and doom-bringers have chanted for eons, everyone seems to have come to the consensus that the zombie apocalypse will very soon arrive, and your sensible friends are making preparations for the worst. As an actuary, you wonder how this will affect your life and your career—not that they are distinguishable for most of your kind—and you spend the entire weekend researching this problem instead of preparing. (If you have no interest in reading about how the numbers in the table came to be, skip to Table 1)

The assumptions of the model are as follows: one takes a mortality table in our currently zombie-free world and extract  $q_x$  (which we will denote as  $q_{2x}$ ) which will be the independent probability of someone dying of a not-zombie related death (equal to the probability of dying in a world without a zombie apocalypse), then take a mortality table of people dying of zombie related deaths, which will form  $q_{1x}$ , the independent probability that someone will die of a zombie related death. The latter data is scarce, and the only information that could be found on this was an isolated case in Fall 2012 on a far-away university campus. However, the data is highly incomplete and unsuited for actuarial calculations in an ideal world, but since it is the only data that exists, we will have to make do.

The first problems with the data are that it only records five days and it is not split by age. Since the number of people dying to zombie related causes were significant even on a daily level, the first thing to accommodate our data was to change our annual probabilities of death to daily probabilities, and you do that by making the UDD (Uniform Distribution of Death) assumption. To account for the lack of age data, the data in the table uses a hypothetical age  $x$  which is the weighted average of the ages of students on a university campus, and we adjust our  $q_{x2}$  to reflect that. You then take  $q_{x1}$  and  $q_{x2}$  and put them into a single multiple decrement model (where the probabilities are now called  $p_{01}$  and  $p_{02}$  respectively) by also applying the UDD assumption to zombie related deaths. Lastly, you calculate the probability of surviving a day during the zombie apocalypse,  $p_{00}$ .

Table 1: Partial Mortality Table For Use During Zombie Apocalypse [d\_]

Day	$q_{1x}$	$q_{2x}$	$p_{01}$	$p_{02}$	$p_{00}$
1	0.12589	0.00019	0.12588	0.00017	0.87395
2	0.17120	0.00019	0.17118	0.00017	0.82865
3	0.15410	0.00019	0.15408	0.00017	0.84574
4	0.05426	0.00019	0.54259	0.00018	0.94556
5	0.05328	0.00019	0.05327	0.00018	0.94655

Note that over half of the people on the affected campus managed to survive for five days (to see for yourself, multiply

**Check your root privilege at the door, you su scum.**

all figures in the  $p_{00}$  column). Then to be rescued by the military means that the zombie apocalypse probably isn't fatal to the human race as a whole, provided that it is contained and eventually neutralized.

After being assured that, probabilistically, you would survive the zombie apocalypse, the next thing to do is to obviously try and make a profit out of it. Unfortunately, although there is no precedent for this type of thing, interest rate risk is probably a factor on the onset of the apocalypse and might make daily interest a factor in calculations, but without a precedent to analyze, the assumption that interest is negligible over the period of days will be made. Without the almighty compound interest force, you would need to cover the majority of the payable funds with other buyers' premium payments.

Given the properties of the mortality curve, it would seem to make the most sense to sell deferred insurance payments or just a lump sum payment (pure endowment) at the end of five days if you survive. The final table below shows how much you need to charge for fair value if you pay out \$1 per insurance policy based on the mortality table you calculated.

Table 2: Policy Value of Insurance Whose Payout Is \$1

INSURANCE WHICH ONLY PAYS IF THE HOLDER DIES BETWEEN THE END OF DAYS N AND 5 (N-DAY DEFERRED 5 DAY TERM INSURANCE)						INSURANCE WHICH ONLY PAYS IF HOLDER SURVIVES 5 DAYS (5-DAY ENDOWMENT INSURANCE)
N	0	1	2	3	4	
P	0.45182	0.32576	0.17601	0.06430	0.03096	0.54818

You spend the rest of the weekend working out other possible combinations of policy benefits and payment schemes, and all too soon it is now Sunday evening and your friends are all locked up, safe and secure. You set up a booth to sell your carefully calculated insurance policies, and promptly get eaten by a zombie Monday morning. Who knew that not preparing for all in a zombie apocalypse would put you in a high risk category for zombie related deaths?

*Zethar disclaims all liabilities and responsibilities associated with using these numbers and any misguided attempts to actually sell life insurance during a zombie apocalypse. If you do make a profit though, send mathNEWS a cheque as they would appreciate a cut. Lastly, while Zethar does not think this article contains technical mistakes (aside from terminology in an attempt to make this more accessible for non-actuaries), it is probably safer to ask the reader to take the article's numbers with a grain of salt.*

Zethar

**"A Story in N Parts" is on hiatus and may return. Maybe. Might even conclude.**

## Media Things, a Spontaneous List

I saw *Warm Bodies* on a whim and it was surprisingly better than I expected. The movie was a refreshing, comedic take on human nature without taking itself too seriously. The female protagonist showed an uncanny resemblance to Kristen Stewart — that is, if Kristen Stewart was happy, blonde, and likeable. So she was nothing like Kristen Stewart, but her face was kind of like Kristen Stewart's.

*Favourite scene, a panicking zombie:*

Say something human!

H-how are you?

Nailed it.

How I Met Your Mother is almost on its way out, which means I can waste my Mondays doing things other than trying to find out who the hell this one fictional guy marries.

I recently started watching *Bob's Burgers*. It's good. You should watch it too.

On March 11, Google paid tribute to Douglas Adams, the author of *The Hitchhiker's Guide to the Galaxy*, with a Google doodle. The doodle featured a Babelfish among other effects from the books. Of course, you'll be using Google translate to help you with that Spanish homework instead of the Babelfish. Google owns us all.

Around campus, you might overhear the odd stranger mention something about playing with chairs. The fantasy TV series, *Game of Thrones*, is returning for its third season on the 31st. Are you excited to get your mind blown by the traitorous and high-stakes happenings in Westeros? I am. Finish your Easter weekend homework early.

That's all I can think of for now. Farewell until next time, hitchhikers. Don't panic, and don't forget your towels.

Helenkeep

## Ambiguous Videogame Quiz Results

Apparently I held an Ambiguous Videogame Quiz one of these issues. As people have submitted answers. I went with the ones that made me laugh, since I don't remember the questions.

The answers are given by Scythe Marshall: 1) Scarecrow's Song: Up A Down Left Right A Up, w/pitch bend up on the control stick. 2) Mario Tennis 64 The grunting is so fake! 3) Jigglypuff Until it Rests You.

I'm just going to assume all my questions were dirty questions, making these answers make more (or less) sense. And giggle. Good job Scythe Marshall! Yell at *mathNEWS* editors for a potential prize maybe.

Peace out people!  
InnuendoBot

## A Review of the New Zombie Movie

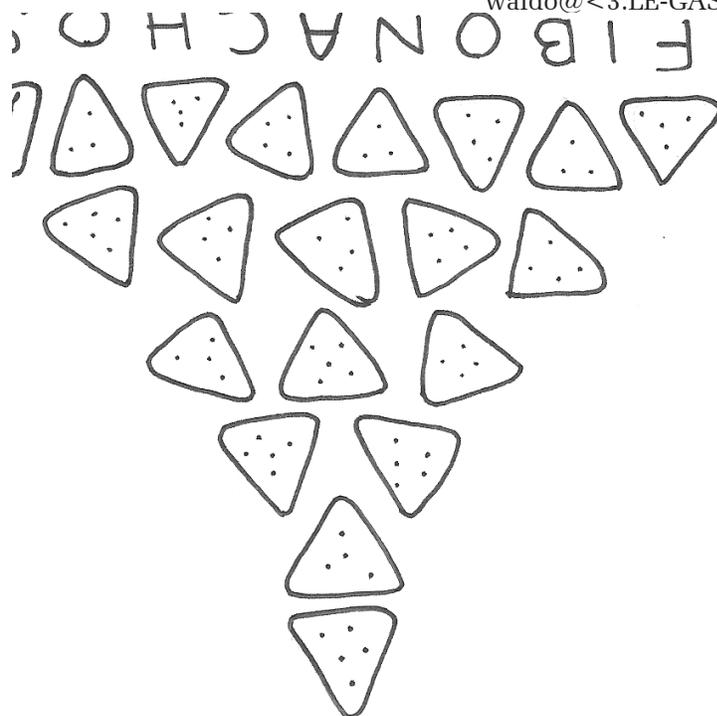
*In anticipation of Humans vs. Zombies!*

So the company that helped make the *Twilight* saga a film series recently came out with *Warm Bodies*. I'll just get right to the point: it was a sappy and adorable re-telling of a zombie *Romeo and Juliet* with some hilarious one-liners and probably not enough gory zombie-ness as there should have been.

So immediately from the names of all the characters, it should've been rather obvious that this would've been a *Romeo and Juliet* re-telling, but in case you didn't notice, the movie shoves it down your throat with a freaking balcony scene that just makes you go, "UGH. This is so unoriginal!" Regardless of the story's flaws with stereotypes and a really unclear timeline of events, inconsistent with the props utilized in certain scenes, there was a lot that I enjoyed about this movie. The one-liners delivered by Rob Corddry were excellent, the voice-over by Nick Hoult had its moments, the goat was unexpected, and it was nice to hear all the fantastic classic music from...at least 30 years ago? Really? Doesn't feel THAT long ago.

As an avid fan of *HvZ* and self-proclaimed zombie enthusiast, my major critique of the movie would have to be the nature of the gore and the zombies' designs. I like enough zombie gore as much as the next person, but at times I thought it could have been played up more. If you like gore, are a self-proclaimed hard-core zombie fan, and are explicitly looking for horror, this movie is likely NOT for you. If you're a fan of romantic comedies, you'll probably enjoy this movie so long as you don't mind a hint of the undead in your life. Whatever you do or don't like, you'll likely at least find something to like about this movie. Would definitely recommend seeing on the cheap night if you're free!

waldo@<3.LE-GASP.ca



## Russian Reviews: Arma 3 Alpha

*or why MilSims can make good racing games*

**Tuesday, March 5** — The much awaited *Arma 3 Alpha* is released. Fans of the previous game rejoiced, swarming onto servers that sprung up like weeds and enjoying what was available: the two missions on the 19 km<sup>2</sup> island of Stratis. This lasted all half an hour for some, after which there was a half hour of nothing to do until the first custom missions (made in the incomplete but very functional mission editor) were released and hosted on private servers.

By the end of the day, hundreds of custom missions/game-modes were created, some of which have become wide-spread and enjoyed (though mostly based on previous creations from *Arma 2* or other games). This is an interesting phenomenon that I do not believe has happened before, where a 'game' is released with no game-modes (except two quick co-op missions), but only with an editor and subsequent game-modes entirely made by players. The closest I can think of is the *TrackMania* games, where players make all the maps. Unlike *Trackmania*, *Arma 3* can be more than just a racing game (though it does that rather well); it can also be a role-playing game, a hunting game, or, heck, even a Military Simulator.

So despite a number of bugs (it is in Alpha phase) and a large number of people who don't know what they are doing (thanks *DayZ* for bringing various FPS players into a MilSim), you should pay attention to *Arma 3* and see what you could do in this easily modded game that already has various game-modes from role-playing a 9-to-5 worker's life to carrying out a large and heavily complicated military operation.

Soviet Canadian

## News I Found Interesting: Heroin Edition

Last Monday, March 10, the Toronto Star and other legitimate news sources (so not *mathNEWS*), reported the seizure of 10.6 kg of heroin at Toronto Pearson International Airport. The narcotics were found in luggage transported from Pakistan and are estimated to be worth \$4 million dollars. The luggage has been in the possession of the Canadian Border Services Agency since late February, being kept until they could confirm that the suspicious luggage indeed carried drugs.

Good for you, Canadian Border Services Agency.

Now that the hunch has been confirmed, let's try to wrap our heads around the situation. For reference, 10.6 kg is about the same mass as 172 standard bags of skittles. Each bag would cost you \$23 000. A nice car costs \$23 000. You could pay your undergrad tuition with \$23 000. You can buy 1000 Facebook stocks (but why would you?) with \$23 000. For more reference, that amount of heroin also equates to a lot of highs and a handful of ruined lives.

Helenkeep

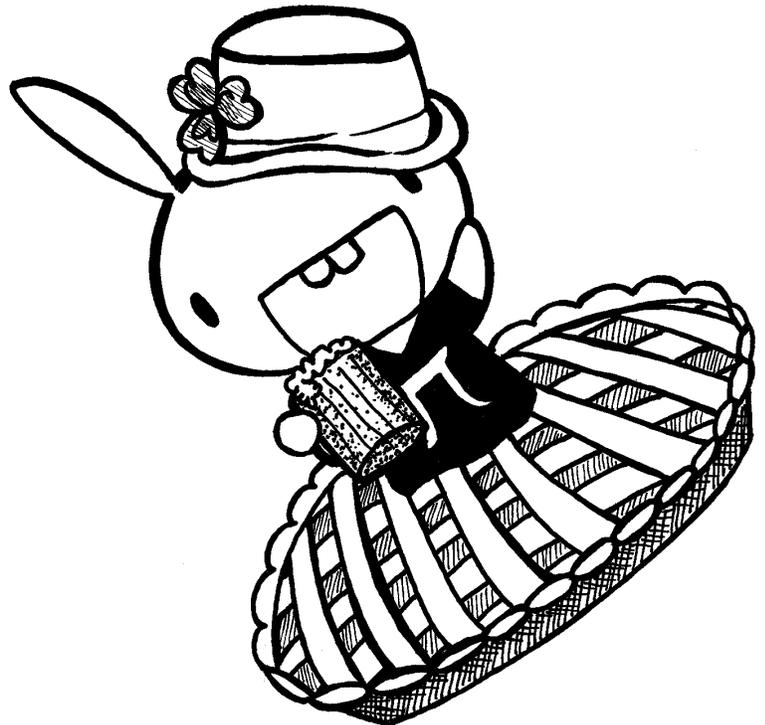
## How to Write Fanfiction

So you want to write fanfiction! Here are some general guidelines, based on the many successes I've had.

- If it's your first fanfiction, tell them so they will be nicer!
- Demand reviews! You should never post another chapter without at least 5 reviews. You should also demand more as the story goes on.
- Don't worry too much about typos. That's what spell checker is for!
- Feel free to add in your own characters. (OCs)
- Don't worry about your OCs stealing the focus from the actual characters. It's YOUR story.
- Make your OCs perfect. No one wants boring flaws.
- Extra points if your OC is like a better version of you.
- Insert your commentary in the (A/N: like this!) middle of sentences!
- Get creative with your pairings: Hermione/Nearly Headless Nick (Harry Potter), R2D2/Boba Fett (Star Wars), Anthea/Mike Stamford (Sherlock), Cato/Gale (Hunger Games), Azula/Cabbage Guy (A:tLA), Snow White/bird, Edward/pickle (Twilight).
- Don't worry about things like if the characters have ever met when coming up with pairings.
- If anyone flames your pairing, tell them they just don't understand it!
- Feel free to throw in lots of gratuitous romance and, ahem, \*adult\* sections without any justification or reason.
- Lastly: Have confidence. Remember: you are the best author ever, and anyone who doesn't know this is dumb!

Yours in creativity,  
Shay Blair.

**A *mathNEWS* employee managed to actually get into *mathNEWS* and sends you a screen cap.**



# I Knew You Were Buggy

as performed by TCP SYN

(alternate title: Five Days a Debugger, Seven Days a Network Stack)

Once upon a time far too long ago  
You were on my spec: "Implement the 'Net'"  
Compiling, compiling, compiling—  
I'd heard of you before, so I thought I'd use that,  
And when you crashed hard, I took a step back  
It won't boot, it won't boot, it won't boot—

Your code's long gone but this cannot be  
And I realize the bugs are too deep

*Chorus:*

'Cause I knew you were buggy when I logged in  
So shame on me now  
Faulting in places I'd never been  
Then the network's down, oh  
I knew you were buggy when I logged in  
So shame on me now  
Faulting in places I'd never been  
Now you're looping in an IRQ!  
WHY?— HOW?— (buggy, buggy, buggy—)  
WHAT— NOW?— (buggy, buggy, buggy—)

Let's reset the board, a new compiler flag,  
Pretend you didn't know that you're the reason why  
Alignment! Alignment! Alignment!—  
Now I get to move on, to TCP/IP,  
But first I'll test if you can do ICMP  
"Ping timeout", "Ping timeout", "Ping timeout"—

You didn't clear the buffer to receive  
Those extra bytes aren't Eight Oh Two Point Three, no!

*Chorus*

And the saddest fear comes creeping in  
That this board has RAM, a LOT, two hundred MEG! This can't  
be right, noooo—!

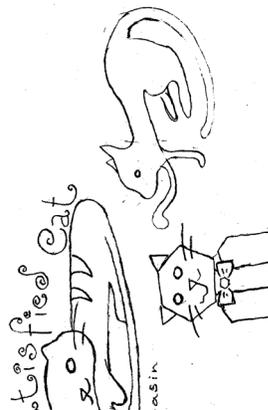
*Chorus*

And it's only a matter of time...  
NOT— AGAIN!— (buggy, buggy, buggy—)  
WHAT— NEXT?— (buggy, buggy, buggy—)

I knew you were buggy when I logged in  
(buggy, buggy, buggy—) x2

"I don't know if you know how it works until you fix how it  
'worked!'"

ScruffyED



# I am Not a Poet

I am not a poet  
And I really do know it  
I can't rhyme to save my life  
Might as well just kill me now  
I am told poetry requires an iambic meter  
Please wait while I Google a syllable counter

I am not a poet  
And I really do know it  
My metaphors are as enlightening  
As the sky is darkening  
I also confuse my rhetorical devices  
And that is only one of my unforgivable vices

I am not a poet  
And I really do know it  
I believe endless repetition  
Brings flavour to this edition  
I believe endless repetition  
Brings flavour to this edition

I am not a poet  
And I really do know it  
Perhaps you think this poem is not great  
But at the same time there is nothing to hate  
I should tell you, I had some friend help me edit  
I really should give them so credit

I am not a poet  
Now you too should know it

Beyond Meta

# The Best Poem I've Ever Written

Arts is (kinda) red,  
Science is blue,  
I like bacon,  
Nevermore.

Edgar William Allan Shakespeare Poe SMURF

## profQUOTES

“So, function of  $x$  = function of  $t$ . So, apples = oranges. That can only happen if apples = banana. And oranges = banana. And also the banana is constant.”

- Miskovic

“Enough about hockey, let's talk about penises.”

- Kenyon, PHIL 145

“There is something holding them together and it ain't gerbils.”

- Scholtz, PHYS 122

“My goal in this class is to turn all of you on.”

- Legge, ChE 161

[Reads off a slide about highlighting important notes in texts]  
“Hunger is a need, sex is not.”

- Ennis, PSYCH 101

[stops reading and comments] “I NEVER KNEW THAT! and that is why you never come over to my house for dinner!”

- Ennis, PSYCH 101

“Just remember that the speed limit is a suggestion in the real world.”

- Lank, CS 349

“Byron doesn't use a computer, he uses a mac.”

- Lank, CS 349

“There's no magic here. Just simple algebra on a matrix of transfer functions.”

- Nielsen, SE 380

“We jumped through a time warp”

- Metzger, STAT 340

“In my day, if you ever used a goto, you were dead”

- Metzger, STAT 340

“Today is a low stress day so you can focus your stress on the Wednesday test.”

- Zhu

“It seems that the university has been converging towards the north pole, with my office and this classroom being the coldest of them all.”

- Razeman, STAT 443

“Does that explanation sound reasonable, or do I sound like BS?”

- Razeman, STAT 443

“If you need to sleep with the data's mother to do it, do it.”

- Razeman, STAT 443

“ $2 + 2$  is  $4 \pm 1$ .”

- Razeman, STAT 443

“I guess I just enjoy bars.”

- Metzger, STAT 340

“Do profs eat markers? I keep finding the lids only...”

- Razeman, STAT 443

“Riley, talk to yourself more, maybe they'll think you're normal.”

- Metzger, STAT 340

“I never, ever, ever want to be an Engineer because I would need to be in RCH.”

- Razeman, STAT 443

“It's like the effect between me and my sister with my brother removed.”

- Razeman, STAT 443

“I wished I could teach calculus, because you say  $\partial$  too often, and you're killing things on the board.”

- Metzger, STAT 340

“Your assignment is short because it was so cold in my office last night.”

- Razeman, STAT 443

“If you need to sleep with the mother of the data to stabilize its variance, then do it.”

- Ramezan, STAT 443

## Words We Should Have in English

I spent some time in France when I was in high school. My French got pretty good; I was almost fluent at a point. That was a few years ago, and my French has gotten terrible again, but there are still words that stick with me. These are words that I wish I could use in everyday conversation, because their meaning is so clear and perfect for what I'm talking about. Like the word “retrouver” which literally translates to “re-find” but means “re-discover” or “remember something that you had before”. Some words in other languages are just better at conveying certain meanings. Here is a random awesome list of them:

- *Pana po'o* (Hawaiian): the act of scratching your head while attempting to think of something.
- *Age-otori* (Japanese): to look worse after a haircut.
- *Pisan zapra* (Malay): the time needed to eat a banana
- *Mokita* (New Guinean): the truth everyone knows, but no one will admit
- *Jayus* (Indonesian): a joke so bad and poorly told that you can't help but laugh
- *Tartle* (Scottish): the act of hesitating while you're introducing someone because you've forgotten their name
- *Shlimazl* (Yiddish): someone who has nothing but bad luck
- *Sgiomlaireachd* (Scottish Gaelic): when people interrupt you while you're eating
- *Espirit d'escalier* (French): when you think of a perfect verbal comeback far too late



## gridWORD Clues

*Across*

*Down*

1. Collection
5. Before 57A
12. Media medium
14. Dunderhead
15. One, to Oliviero
16. Wife and way go-with
17. Gritty Cogburn
19. Giant napkin
21. Canadian interjections
23. Small submachine gun
25. Hindu demon
28. Pitch and few go-with
29. Foxy
30. Habitat
32. Wonderment
33. Milk, vanilla, and 6D
35. Crude
37. Paraguaná fishing town
38. Buses here
40. Ensphere
41. Sacrifice by fire
42. Lyrical stanza
44. American cryptologic agency
45. Tea town
50. Alcoholic Lou
52. Computer key
53. Romanian currency
55. Back-book brief
56. Fasten anew
57. After 5A
58. Actor Bentley

1. Aneath 39D
2. One, to Otto
3. Marxist Leon
4. Measures meter
5. The father of English history
6. Tea Grey
7. Lumber whorl
8. No-legs
9. Formicary resident
10. Sternutatioous roots
11. Son of Odin
13. Black hat
18. Ghost noise
20. Eight hidden furlongs?
22. Divided dairy
23.  $400\text{nm} \geq \lambda \geq 315\text{nm}$
24. Wrath
26. Tsar Bomba
27. Pop
28. Frozen yogurt
31. C type
34. Mère, père, sœur, et frère
35. Next summer games locale
36. Calamity
38. Mob rule?
39. Atop 1D
43. Star
45. Full of 36D
46. Short short form form
47. 柔道
48. Deserve
49. Hankering
50. `string.toUpperCase[:3][::-1]`
51. Furrow
54. Unit suffix

### Last Week's Solutions:

A	L	L	I	M		A		L	
d						A	L	L	I
d					A	L	L	I	M
Q					A	L	L	I	M
d			A	L	L	I	M		A
	A	L	L	I	M		A	L	
A	L	L	I	M		A	L	L	
	L	I	M		A	L	L	I	M
L	I	M		A	L	L	I	M	
	M		A	L	L	I	M		

**gridWORD is on page 20! Don't get lost on the way there.**

# horrorSCOPES

*Cloudy with a chance of misery*

**ActSci:** With the mounting paranoia of the upcoming zombie apocalypse, you recalculate the actuarial tables to see who would live the longest. Against all pop culture, nerds have the lowest life expectancy, followed by TAs.

*Your unlucky number is: 21 days before being eaten.*

**AHS:** Due to your actions on St Patrick's day, the university has decided to cut ties with your entire faculty. Citing your excessive douchebaggery and "wedgiegate", you suddenly find yourself free of classes. Party!

*Your unlucky number is: 700 students at another kegger.*

**AMATH:** Your Calculus of Variations class has taught you to differentiate between different groups of people. You start treating Pure Mathies as third-class citizens.

*Your unlucky number is: 325 angry underlings.*

**ARTS:** Going through Maslow's Hierachy of Needs, you see that you're missing all of your needs at one level, while you have needs in a higher one. You decide to tackle each level at a time, and forgo morality for sex.

*Your unlucky number is: 23 one night stands.*

**BioInformatics:** While trying to sequence what genome specifically causes four leaf clovers [*I really don't understand BioInformatics — ObjectED*], you accidentally create a new breed of two leaf clovers.

*Your unlucky number is: 4,487,000 irate Irishmen.*

**C&O:** Frustrated that you're always arriving late to class, you search for the shortest path from your house to class. Removing the constraints for roads and paths, you find the shortest optimal solution.

*Your unlucky number is: 5 trespassing violations.*

**CM:** You get asked by parents during March Break Open house what program you're in. When you answer, they say that it's no longer in the guide. Good thing that St Patrick's day is near...

*Your unlucky number is: 12 shots to drown your sorrows.*

**CS:** You find that your room has become a lot neater ever since you started taking CS 240. Your clothes are nicely organized in a stack, your desk is neatly sorted in a tree, and you've neatly compressed your assignments into 3 lines.

*Your unlucky number is: 1 letter response, since no one could decompress it.*

**Double Degree:** Unsatisfied with Bomber night, you head on over to Wilf's for a fun night out. When you invite your friends the next week, they show up disappointed.

*Your unlucky number is: 4 unused condoms.*

**ENG:** Putting the final touches on your design project, you install the artificial intelligence needed to make the entire machine work. Congratulations! You now have the world's most advanced clothes folding machine.

*Your unlucky number is: 20 months of work to avoid your chores.*

**Editors:** Your terrible layout forces an ex-editor to redo the issue.  
*Your unlucky number is: 20 page issue.*

**ENV:** Spring is in the air, and it's bringing out your allergies. You devise a way to make a hypoallergenic outdoors, but are stopped by your fellow environmental students. Sometimes, you just can't win...

*Your unlucky number is: 32 tissues and a nasty rash.*

**Grad:** Your supervisor talks about how you must take your research seriously if you want to graduate. It's hard to focus when you're studying in a field that wasn't really what you signed up for.

*Your unlucky number is: Only 445 days until it's over.*

**Math Bus:** With the removal of the penny, giving a penny for one's thoughts have become meaningless. Therefore, thoughts are now worthless. You start using Twitter.

*Your unlucky number is: 27 tweets about your bowel movements.*

**Math Phys:** With the collision of the stealth meteorite in Russia, you launch your own satellite that will be more accurate at detecting meteors. Your launch goes slightly off trajectory.

*Your unlucky number is: \$45 million thrown into the sun.*

**PMATH:** You decide to take a break from theoretical studies, and go for a hands-on approach. Your practical studies in alcohol have taken you to places that you never thought that you'd go.

*Your unlucky number is: 17 hour blackout.*

**SCI:** Your lab results aren't matching up with your theoretical results, and that's going to look bad on your report. You change the theoretical results and hope that no one notices.

*Your unlucky number is: 9/10. They didn't.*

**Soft Eng:** All of your classmates have been matched up with jobs, except for you. You lower your standards, and start applying to more general CS positions with lower pay. You get a match!

*Your unlucky number is: \$11/hour manually testing website compatibility on IE.*

**Stats:** With SimCity's disastrous launch, you wonder what the odds are that EA will learn not to enforce always-online modes for games. You extrapolate on their always-online games so far.

*Your unlucky number is: 0%. Might as well give up on the brand.*

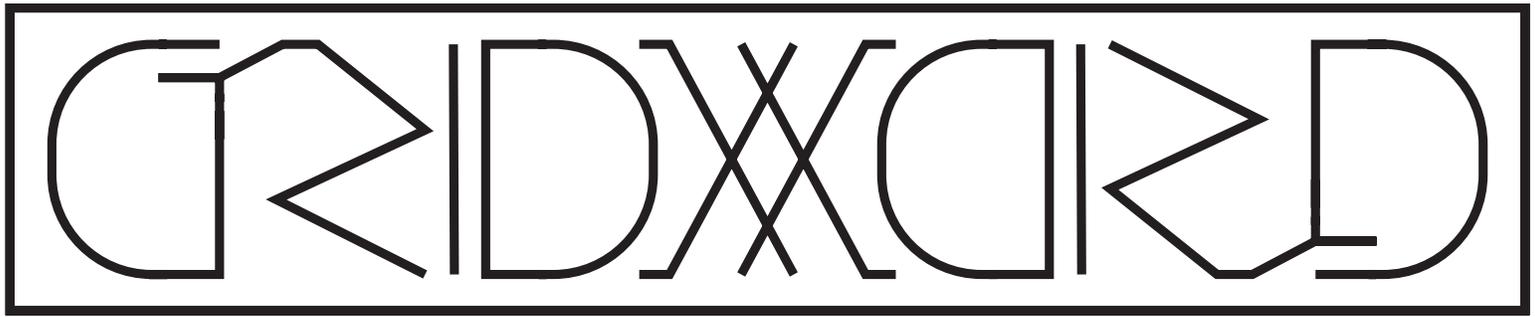
**Teaching Option:** You decide to troll the students during March Break open house by telling them that you shadow profs and teach lectures from time to time. For added effect, you put on a tweed jacket.

*Your unlucky number is: 2 scratchy elbows.*

**Undeclared:** You don't know whether you should go out to a bar for St Patrick's Day, or go to a house party. You choose the former, but they don't let you in.

*Your unlucky number is: 18 years old. You're not legal yet.*

Big Mak



## gridCOMMENTS

*Tea time*

You've had a month to rest your pens and I've had a month to pen this crossword. Turn on your kettles, bring out the tea-cosies, and steep your favourite teas: I made this one tough. Tea-stained submissions are welcome. I thank my housemate Nate for the theme and the title.

Out of six submissions, four were perfect; both incorrect grids featured "FEAPIGS" instead of "SEAPIGS", which led me to momentarily believe a new species had been discovered. Since dying isn't very funny (Riaz and Jasmine) and since I will never publish jokes against my mother (John Ladan), this month's winner is Brendan Lew, who answered last issue's *gridQUESTION*, "What's the worst thing you could do on a date?" with the dactyliferous interpretation, "Step on it! They are awfully small and squishy." Congratulations, Brendan! You may pick up your prize at MathSoc or at the *mathNEWS* office (MC 3030).

When y'all complete as much of the *gridWORD* as you can, submit your work to the **BLACK BOX** (outside the Comfy Lounge on the third floor of MC) by 18:30 on Monday the 25th of March. Include your name and your answer to this issue's *gridQUESTION*—the shortest answer decides the winner (of a \$5 C&D certificate) in the event of a tie.

The question's a bit involved. Consider the word "arm". By changing one letter at a time, we can get a lot of legal English words: "aim", "aid", "add", "odd", "ode", "ore", "ire", &c. From "xenon", we can get "tenon", then "tenor" and "senor", but also "teton", "beton", and "baton". On the other hand, I can't think of any changes to "zebra" which yield a legal English word. Hence, "what is the shortest word you can think of which yields no (or few) legal English words upon changing one letter at a time?"

Cheers,  
unit

**Submit your *gridWORD* solutions to the BLACK BOX outside the Comfy Lounge (MC3001) and don't forget to answer the *gridQUESTION*.**

## This Week's Grid:

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

	S	L	L	M		R	H	E	L	E			
S	U	P	I	D	O	N	A	V	L	S	I	R	L
L	S	U	B	O	R	O	S	A	L	V	A	X	S
O	S	O	R	T	O	G	E	T	L	E	R	T	E
N	I	B		N	I	N	A	L	S		O	D	E
K	A	C		E	R	N	E	N	G		N	N	I
R		H	T	H	E	A	B	V	Z	I	E	L	I
S	V	W	T	L		D		P		R	R	P	P
T	N	E	I	C	A	N	A	S	V	A	N	V	I
I		Y	M	A	R		R		E	L	U	E	L
	O		S	C	A	S	U		S	F	S		S
E	A	G	E			M	O	T			E	L	E
S			E	D	E	C	E	R	M	E	B	E	L
A			D	A	N	D	A	U	G	A	N	I	A
I			C	O	N	I	B	I	O	N	I	C	I

**Issue 3's Solutions**