

*math*

Volume 126, Issue 1

**NEWS**

Friday, September 19<sup>th</sup>, 2014

WELCOME  
BACK



WINTER  
IS COMING

© WOLVERINE PANDA



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## lookAHEAD

### mathNEWS

September 19	Issue 1 plays, plays, plays, plays, plays
September 29	Issue 2 writers hate, hate, hate, hate, hate
October 3	Issue 2 shakes, shakes shakes it off

### CECA

September 19	Career Exploration and Decision Making
September 20	Job post 1 (main group) opens
September 22	Interview Skills: Preparing for Questions Case Interview Workshop - Oliver Wyman Career 601
September 23	Volunteer Fair
September 24	Career Fair
September 25	Make Networking Count II Interviewing Skills: Proving your Skills Law School Applications (OLSAS)
September 26	Job post 2 (main group) opens Career Interest Assessment
September 29	Social Media, Networking, and You
September 30	Employer interviews Work Search Strategies

### University

September 26	Drop, no penalty period ends
September 27	Drop, penalty 1 period begins (WD)

### Miscellaneous

September 19	Talk Like a Pirate Day
September 22	Elephant Appreciation Day
September 28	Ask a Stupid Question Day
October 1	Vegetarian Day



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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* will eventually be available electronically via the World Wide Web at <http://www.mathNEWS.uwaterloo.ca/>. Even Thomas Baxter doesn't read this ISSN, so it's pointless to update it. What do you think? Send your correspondence to: *mathNEWS*, MC3030, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1 or to [mathNEWS@gmail.com](mailto:mathNEWS@gmail.com) on the Internet.

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Amy Li (Shredder), Elizabeth Liu (Raphael), Katherine Tu (Donatello), Jose Valesco (April), Rachel Wiens (Splinter)

## mastHEAD

Our *mathNEWS* writers and editors are undoubtedly the wisest and most well-rounded individuals on UW campus. As such, with the recent influx of new students we thought we would ask them to share some tips and tricks on navigating the waters of university. Here are their answers to: "What advice would you give to first-years that wouldn't be included at Orientation?"

lp0onfire ("Learn the Linux command line and at least one scripting language even if you're not in CS. Your productivity will grow and you can show off to your friends"); bunniED ("Find friend. Attach self."); Parody *mathNEWS* Twitter Account ("Tweet everything. #AwkwardBathroomVisits #YOLO"); tesseraCT ("If you don't skip some class, you're doing it wrong"); IceNine ("If you plan on getting laid, start early and get practice"); TubesJr. ("Go see the cave bear skeleton in EIT. Seriously. Go now. What are you still doing here?!? GO!"); whatsmyname ("Go lick the salt rock in EIT. Seriously. It's salty."); Zethar ("Explore: geographically and academically. Fly, soar, and conquer."); Beyond Meta ("wear silly clothing to meet people. I recommend a cape or a moose hat"); SketchED ("Everything is a lie."); MuffinED ("Go exploring! There are more cool things at UW and out there in the world than you'd expect.");

wibbled ("join ALL the clubs!").

## GI Jam

Presented by The University of Waterloo Games Institute and The Playful Pixel, the GI Jam returns for Fall 2014!

This time, we're adding an extra day of tutorials and are expanding into an additional lecture hall for our largest ever weekend of tutorials, talks, and game making madness! From October 3<sup>rd</sup> through 5<sup>th</sup>, Jam participants are invited to team up with fellow Jammers and build their own board and video games with the help of G.I. Mentors.

Don't know how to make games? Not a problem! Experts from the Games Institute will be giving a series of talks and tutorials including "Programming 101", "Board Game Design", "Introduction to 2D Games with the Unity Game Engine", and "Multiplayer Networking".

Not sure if the GI Jam is the place for you? Want to get a head start on brainstorming your next crazy game idea? Come out to our free "Pre-Jam Prep Night" on September 25th, in advance of the main event, to chat with the Jam organizers and potential Jam teammates.

The G.I. Jam is open to the public, not just UW students. Everyone is welcome, including programmers, artists, and musicians! If you want to get involved with the heart of game making in the KW community, the GI Jam is the place to be!

Visit [www.ThePlayfulPixel.ca](http://www.ThePlayfulPixel.ca) for more information!

John Harris  
University of Waterloo Games Institute

## Full Day Workshop on ADHD in Adults

This will be a full day of presentations geared to adults and their families dealing with adult ADHD, and health professionals who wish to gain an understanding of disorder and potential treatments.

The morning sessions will cover the medical science of adult ADHD, the presentation and difference from childhood ADHD, and the medication and psychosocial treatment options, followed by a unique brief presentation by adults with ADHD speaking about their own experiences and insights.

The afternoon will include a presentation on emotional dysregulation in adult ADHD and a presentation on ADHD in the workplace including potential strategies and accommodations. An open question and answer discussion period will follow; attendees can ask questions and share their insights.

Space is limited so register before we're sold out! Registration includes workbook materials, breakfast, lunch, and coffee breaks.

For more information and to register, go to [www.caddac.ca](http://www.caddac.ca) and click on Events. If you have any questions, email us at [kayla.altman@caddac.ca](mailto:kayla.altman@caddac.ca) or [heidi.bernhardt@caddac.ca](mailto:heidi.bernhardt@caddac.ca) or call us at 416-637-8584.

Kayla Altman

## Share the Road

Do you bike, walk, or bus to school? Do you like to be able to do so safely? Are you sick and tired of getting hit by cars? Go sign the Active Communities Pledge at [www.activecommunitiespledge.ca](http://www.activecommunitiespledge.ca)

The pledge helps voters understand which candidates are serious about improving active transportation infrastructure and policies. It is equally important for voters to sign up to let politicians know there are votes behind these decisions.

The pledge is an initiative from the Share The Road coalition. Their goal is to clarify the economic, environmental, social, and health benefits of improving infrastructure and policies for active transportation. These issues are even more important to university students like us who already bike, bus, and walk most places. For more information about the Share The Road campaign or to help out in other ways see [www.sharetheroad.ca](http://www.sharetheroad.ca) and don't forget to vote on October 27<sup>th</sup>.

Cardbo

## Office Gossip: F15 #1

*Welcome, and Lockers*

Hello there, math students! My name is Darcy Alemany, and I am the new Office Services Manager at the Mathematics Society. Did you know MathSoc runs an office on the third floor of MC with a bunch of awesome services? We have photocopying and printing services, both in black and white, and colour (for cheaper prices than anywhere else on campus)! There are computers you can use to browse the Internet, to print, or to access office software. We have plenty of staplers, as well as a pencil sharpener and a binding machine. The office sells calculators, stationery, and MathSoc novelties. There is also an information desk to get answers to all of your questions about MathSoc or life as a math student—not to mention that we have free candy, usually a different variety each day!

MathSoc also recognizes storage space on campus is a huge concern to students in the faculty. You all are given so many hours of assignments and midterms studying each week. The school's new scheduling system seems to have a fond liking for awkward too-short-to-go-home-but-too-long-to-not-be-productive breaks between class. Altogether, it becomes impractical to not study on campus, but that means lugging heavy textbooks and notebooks to campus, classes and back. To help combat this, MathSoc recently ordered a large number of new lockers to loan to students on a termly basis to store school materials and personal effects.

With these new lockers also came a newly updated Locker Distribution policy. An important thing for you to know is that, unlike in the previous policy, students who sign up for a locker are given a random one, which they are required to keep for the term. Students may not store any prohibited items, including "weapons, any flammable substances, explosive devices, or illegal substances. Lockers should also not be used to store food, drink or other perishable items." MathSoc representatives may enter a locker which is suspected to violate these rules without having to notify its occupant.

If you are interested in a locker, you can sign up for one by visiting [mathsoc.ca](http://mathsoc.ca) and clicking the "lockers" on the homepage. Please note that it is possible that we may have run out of them before the publication date of this issue. This is the first fall term since the new lockers were installed, and we do not yet know how popular they may be. Please be sure to check in with [mathsoc.ca](http://mathsoc.ca) early and often in later terms to keep on top of future locker opportunities.

Darcy Alemany  
MathSoc Office Services Manager

**Submit your *prof*QUOTES, *grid*SOLUTIONS, Math Puzzle solutions, and questions to the Dean to the BLACK BOX on the third floor MC!**



## Improper Pesticide Use Destroys Crops

A new study shows that Canadian farmers yield has been at an all-time low. Scientists have shown there is a relevant correlation between pesticide use and the amount of yield obtained. According to the research, scientists concluded most farmers used pesticides improperly on their crops, especially for fucks, one of Canada's national exports.

For reference, proper pesticide use consists of putting the pesticide on approximately 3/4 of the crops, leaving a control patch without the chemicals. The reason being for this practice is to allow normal insects to breed with "super bugs", insects resilient to the pesticide. By doing so, the "super bugs" have lower chance of breeding with each other, allowing their offspring to be killed off by the pesticide.

However, after talking with the farmers, scientists found that farmers would cover their entire field of fucks with the pesticide, allowing for an increase in yield from the extra quarter. The constant abuse of improper usage has caused the only insects left to be resilient to the pesticide, making future uses useless, thus destroying the crops.

We interviewed a Canadian farmer about their yield this year. When we asked about his yield and pesticide abuse in the years, he responded, "I literally have zero fucks to give."

*mathNEWS* Reporter

## Retraction: So Long, and Thanks for all the... Pizza?

*I'm back!*

In the final issue for Winter 2014, I wrote a farewell article. I was in 4B, it was the end of the term, and all that was left before graduation were five exams. And then, real life.

Or not. I was going to grad school. Before my farewell article was published, I still had not decided on a school. Eventually, I decided to return to Waterloo and now I am back to writing *mathNEWS* articles. Unlike a certain other writer \*cough\* Scythe Marshall \*cough\* I can actually write these articles with the other *mathNEWS* writers, during production night.

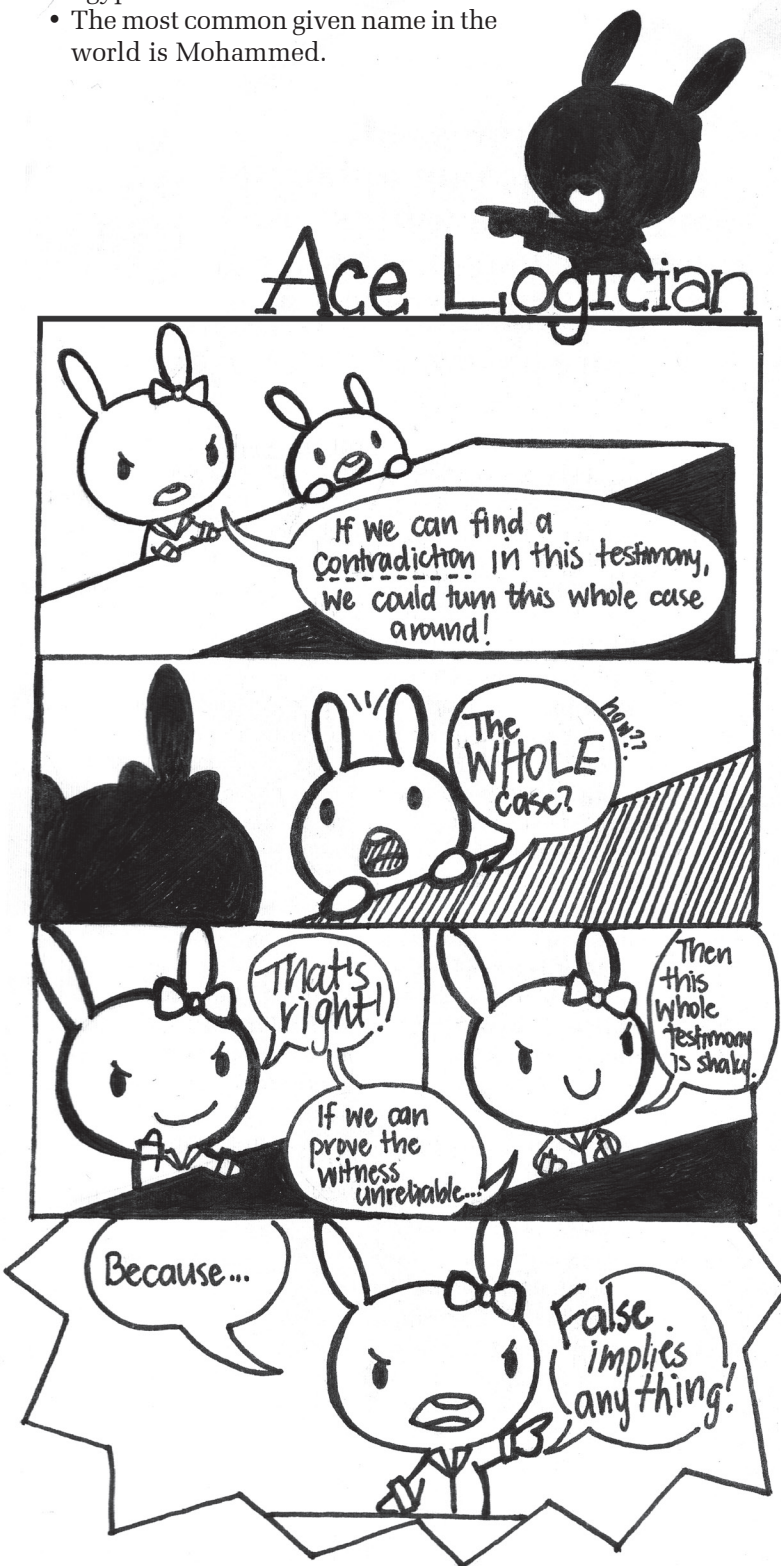
Speaking of production nights, Monday was my first production night since Winter 2010, other than a quick visit in Winter 2012. I quickly determined the best way to be productive and efficient is to avoid production nights, which is why I never went to them. But now I'm a grad student with free time (yeah right) to be at production nights. After all, it's only taken me one hour to write this much because I kept getting distracted.

I guess what this means is nothing has changed, except that I might now write articles about the grad school life, which may or may not be entirely fabricated.

notbob

## A Collection of Completely Random and Sometimes Shocking Facts!

- Odontophobia is the fear of teeth.
- The 57 on Heinz ketchup bottles represents the number of varieties of pickles the company once had.
- The first known contraceptive was crocodile dung, used by Egyptians in 2000 BC.
- The most common given name in the world is Mohammed.



# The Local Kink/BDSM Scene

*Updated for Fall 2014*

Hello first years and other interested folk! I'm here to talk about BDSM and/or kink. For those who don't know, BDSM stands for (generally) Bondage, Domination, Sadism, and Masochism, though some people also make the D out to be Discipline, and the S to be Submission, but that's sort of besides the point. It's all about kinky activities, things sort of outside of the norm. Often times it's combined with sex, and many people don't think of it outside of that context.

There are a few ways to get into what is referred to by practitioners as "play"; the most common is likely trying out some restraints or spanking with a partner during sex. However, sometimes you might not be sure what is safe or not, or might not be aware of all of the amazing options out there to try. Sometimes, you can even be lead astray by works such as 50 Shades of Grey, which paints what in real life would be an abusive relationship as loving just because of the BDSM involved.

So how do we kinksters try to make sure people are educated in things like this before they make potentially dangerous mistakes? We have developed a community of local practitioners of BDSM who can help each other out, as well as explore things together. Such communities have sprung up all over North America and western Europe. The community is sometimes called the kink or BDSM "scene". Recently as well, there has been a major push in the social networked era for ways to interact with the community online, and most have decided on one major social networking site called Fetlife ([www.fetlife.com](http://www.fetlife.com)) which allows kinksters to explore their local scene and try to get to know people.

## How to be Prepared for Waterloo Weather

After the first week of school, many have experienced the randomness that is Waterloo weather. The uncertainty for all students and professors in constant weather changes is real and unwavering. However, there is a way to be prepared for whatever weather Waterloo throws at you:

1. Before leaving home/residence, check the weather report (I personally use the Weather Network), either on your phone or laptop. Be sure to check the hourly weather report for the most accurate predictions.
2. Wear layers! Since it is September, I suggest only a light sweater.
3. Always have an umbrella in your bag. Go out and buy one of those really small and compact umbrellas at any Shoppers Drug Mart near you.
4. Once the colder weather hits, have a pair of gloves and a hat in your bag. Trust me, it can/will save you.

A safe assumption anyone can make about the weather in Waterloo is if it is not snowing, it is raining! Always prepare for rain: WATERloo is England across the pond.

Wolverine Panda

If you're new, I think the best way to get involved is to come out to a kink social, what we call a "munch". It's a gathering of people in a socially normal setting where people can talk about kink. They're held in "vanilla" venues, normal restaurants or pubs, and everyone wears normal clothing except maybe a collar or two. The one I suggest coming out to is the Tri-NG (Tri-Cities version of The Next Generation munch, explicitly for people under 35 years old). It's a small group, and quite newbie-friendly. They meet the 4<sup>th</sup> Wednesday of each month at the Fox and the Fiddle pub in Uptown Waterloo at 7:30 PM. It's held in the pool room at the back. If you're somewhat uneasy going because you don't know anyone there, bringing a friend can be a good plan. Thinking back to my first munch, I was rather unsure about going myself, but once I got there I found that everyone was super friendly, and I've made a bunch of friends by attending.

If you end up making an account on Fetlife, I suggest joining the Tri-NG group as well as "The Kinksters of Kitchener-Waterloo, Guelph, Cambridge, Ontario" group. Some excellent discussions are held there and they are a good way to meet local people. Both groups also have postings about upcoming local events, such as different munches, the main KW munch called the "EhBC" munch, play parties where people play in front of friends and potentially purchase toys, as well as educational workshops on a variety of different types of play: wax play, fire play, and rope bondage to name a few. Whether you come out or not, I hope this was informative, and that you (if you want to!) get the chance to try out BDSM play for yourself.

Ice Nine

## How to Take the Best Damn Selfie of Your Life

Selfie was the Oxford Dictionary's word of the year in 2013 and for good reason. This is how you make your selfies shine like a star:

- Good lighting is key. Don't have your back to the light, otherwise your face will glow like ET's finger and you'll need to go very heavy on the filters.
- On that note, don't go heavy on the filters. Or, at least be careful with them. As nice as a clean black and white or sepia filter is, layering highlights and contrast on top of your Valencia instagram filter make for a big mess.
- Know your angles. Know which poses work well for you. Pretend your instagram is Vogue magazine and your crappy phone camera is Mario Testino. Work it like you're posing for RuPaul. Even your silly selfies.
- Don't stress your selfies too badly. It's all about you. You are the freakin' star regardless of what you look like. If you can go to class in your sweatpants, every selfie you take will be at the same level as a Victoria's Secret Angel.
- Don't listen to a damn word I say if you don't want to. Rock your selfie how ever the hell you want!

speep

# Don't Panic

## *Hitchhiker's Guide to First Year*

For the first time since 2009, I have not been able to be part of Orientation Week, whether as a leader or a first-year, due to my new status as a grad student. This lack of involvement also means I did not have a chance to pass down some things I have learned about life as an undergrad to new students. Orientation Week itself is mainly focused on the drastic adjustments, such as the suddenly increased amount of freedom (and responsibilities). Much less attention is given to the actual day-to-day experience of being a university student.

Firstly, it is almost definitely true your friends group will change dramatically several times while at university. The first one will happen when you transition from having mostly high school friends, to having mostly university friends, generally the people you are living with and the people you share several classes with. At the end of first year, and when programs diverge, these two groups will change again. You may also pick up friends from special interest clubs, who have nothing in common with your other friends. For me, I have not talked to the majority of the people I hung out with in first year in the past several years.

At the end of your first year, or possibly before that, you will most likely need to choose somewhere to live for the next term. This process gets old very quickly. What you will be told is: "Clean, close, cheap. Pick two." What you will probably not be told is that your housemates have at least as much effect on your experience as where you are living. Good friends do not necessarily make good housemates, and good housemates do not necessarily make good friends; an otherwise excellent house can be ruined by a lousy housemate.

On the school front, there will probably be upper years who will tell you horror stories of upper-year courses. You will be told of 100-hour weeks and courses which could double as full-time jobs. You will be told of never-ending essays and lab reports which take the entire day. What you will not be told is that you will be ready for them. When I was in first year, my longest assignment took me 8 hours, and that was because I had done approximately no programming before coming to Waterloo.

By the time you reach the point you have those type of courses, you will be good enough at university to handle it.

On a similar note, some people are better at university than others. That doesn't say anything about intelligence, or ability to succeed, just that some people are better at school. Personally, I have known people that have dropped out of university, and went on to be very successful at a job, as well as people that have done very well at school but did not do well at a job. The number on your transcript most certainly does not tell the whole story. (This is especially true in courses which deal with more than one major subject area).

At some point in your undergrad, you will have to do some type of coursework that you are not prepared for. This could be a midterm that you had forgotten about, or an assignment that was at the bottom of your priority until the night before. The first step is to not panic. The next step is to start working. Freaking out about it does not get it done any faster. Unfortunately, this is often unrealistic. The real trick is to get past the stage where it seems overwhelming, to the point that you can actually get work done.

While doing last minute assignments/studying (and even when not last-minute), be sure to take breaks. Switching to another assignment does not count as a break. More importantly, avoid feeling guilty about taking breaks. Concentration is a finite resource, and trying to force it doesn't work out well.

Finally, university can be fun. Fun will not be handed to you on a silver platter. Most likely, your Orientation Week leaders will have told you that no matter your interest, you will find a group here at Waterloo that shares that interest. Sometimes it is nontrivial to find the group, though for this, Google is your friend. Sometimes it is nontrivial to find out what you like in the first place, but is always worth it. Good luck, have fun, and always remember where your towel is!

MeaninglessQuips

## Monty Python in Python – Lancelot's Journey to Save the "Princess"

```
def startRunningFromBeginning (timeRunningSoFar,
startPoint, endPoint):
    timeRunningSoFar += 1
    return savePrincess (timeRunningSoFar)

def killGuards ():
    print 'L: "Ha-ha!"'
    return None

def savePrincess (timeRunning):
    if timeRunning == 5:
        return killGuards()
    else:
        return startRunningFromBeginning
(timeRunning, 0, 2)
```



runningfromstart.gif



stabbingguard.jpg



## How to Social Well

Talking to people is hard. Doing other activities with other people is hard too. There is nothing to worry about—using this guide, you'll be able to social with people too! Use the following tips and tricks, and you'll have a whole person who will be willing to be in your presence.

- **Maintain eye contact:** This is an important step. Remember to always maintain eye contact with the person you're interacting with. It shows you are generally interested in them and what they are saying, even if you're not. If you find yourself having a hard time doing so, consider mentally describing their eye in your head, like the colour or shape. This way you can keep yourself busy, nodding your head along with feeling distracted.
- **Shake hands firmly:** It's important to shake a person's hand when you first meet them. Even if the other party doesn't offer a handshake, they will feel obligated to shake your hand if you put it out there. After grasping hands, be sure to continue shaking until the opposing party has their hand position back to the side of their body. As they pull their hand back, continue to shake and maintain eye contact. This will show initiative.
- **Consider personal space:** Remember, you and other people have personal space, and area which they feel comfortable with around themselves. In order to truly make friends, you need to invade that personal space. Doing so shows that they can trust you. Talking to them close to their face is important, as you show you are not afraid of them, and don't mind them being in your personal space. Remember to maintain eye contact!
- **Awkward situations:** Every now and then you'll find yourself in an awkward situation. If at any time you feel awkward, or the other party feels awkward, remember this rule: remove your pants. By removing your pants, people will quickly forget about the awkward situation. They will instead remember the awkward situation in which you removed your pants. Also, no situation will be more awkward than the situation where you removed your pants, thus you don't need to worry about future awkward encounters. Great success!

With these tips, you'll have no issue making friends and dealing with all situation. Remember, maintain eye contact!

Formerly Alone

## The Seven Code Reviewers You'll Meet on Co-op

### The tl;dr

Ten seconds after you submit your changes, you get a response which simply says "LGTM" or "shipit." There was no way your code could have been reviewed in that time. You should be ignoring this reviewer.

### The Useless Nitpicker

You might think it's useful to have a nitpicker, someone who catches all the little mistakes. But not this reviewer. This reviewer catches all the little things that don't (really) matter. Typos in comments? Trailing whitespace? Poorly named variables? All will be pointed out. A buffer overflow? You'll have better luck using a static analysis tool.

### The Formatter

Closely related to the Useless Nitpicker, the Formatter specializes in formatting issues. Trailing whitespace? Mixing tabs and spaces? Braces on their own lines? The Formatter will complain about all of these—and more—but will not comment on actual code.

### The Documentation Dictator

The Documentation Dictator dictates that every line of code be documented. "Self-documenting" code does not exist, according to this reviewer. No comment is too trivial. Yes, this reviewer insists on "increment i by 1" comments.

### The Devil's Advocate

Every single design decision is questioned, "for the sake of debate." Some sample questions include "Why did you use linked list instead of a vector?" and "Should that be public or private?"

### The Language Lawyer

It's always useful to have one of these reviewers on your team, someone who has mastered all the intricacies of your project's programming language. But it quickly gets tiring when the Language Lawyer cites the C++ standard every single time. (Even more fun is when your entire team is made of Language Lawyers.)

### The Absolutist

There are certain patterns in programming that should be avoided, but do have their legitimate uses. For example, goto is (generally) considered harmful, but can be used correctly. The Absolutist does not subscribe to this belief and will insist that offending code be removed. The Absolutist does not back down.

notbob

## A Continuation of Completely Random and Sometimes Shocking Facts!

- If you have 3 quarters, 4 dimes, and 4 pennies, you have \$1.19. You also have the largest amount of money in coins without being able to make change for a dollar.
- The number "172" can be found on the back of the US \$5 bill in the bushes at the base of the Lincoln Memorial.
- President Kennedy was the fastest random speaker in the world with more than 350 words per minute.
- The average person will walk the equivalent of 5 times around the equator in their lifetime.

Blue Phoenix

## Eigenvalues, Eigenvectors are IN

Thought you'd never need those old eigenvalues and eigenvectors ever again? Well, take them out of hiding, because these eigen-Vs are in and hot this fall!

I know, I know—the words “eigenvector” and “eigenvalue” just make you think, “UGH!” We all know eigenvalues and eigenvectors are characteristic of Linear Algebra. After all, without the sparkle of the eigen-Vs, Linear Algebra would be reduced to just clunky old matrices. Probably because of the excess Linear Algebra puts on, eigen-Vs seem so gaudy and overdone in mathematics. But it turns out that, as long as they aren't overdone, eigenvectors and eigenvalues can add charm to your look.

So which stars have we spotted showing off their best eigen-V styles? Analysis has been sporting them in its wardrobe for as long as we can remember—after all, integrals are linear operators, which were a product of that scandalous fling between Analysis and Linear Algebra a century ago. You'd better believe they were both wearing their eigen-Vs. But those two have still got it going on pretty strong, and Analysis has whole outfits of eigenvectors and eigenvalues dedicated to charm Linear Algebra on dates to Spectral Theory. The eigen-Vs add colour to Analysis's otherwise demure attire, and can be used to analyse its linear operators, like those pesky integrals. Let's not forget Graph Theory's great looks! Always colourful (usually with two colours, but sometimes with  $k$ ,  $k \geq 3$ ), Graph Theory too has been inspired by Linear Algebra's eigen-Vs. Didn't think Linear Algebra and Graph Theory would ever have chemistry? Let's just say that we've spotted them together in Spectral Theory once or twice.

No matter whether your style is vibrant and full of colour or one more down-to-earth, eigen-Vs are a great addition to your ensemble.

k!

## An Idiot's Guide to Matchmaking

So you have this single friend. They're a generally awesome person. It goes without saying that every moment they spend celibate is a tragedy for humanity. Naturally, being the great friend that you are, you can't let this waste continue any longer. So without bothering to ask whether your friend even wants your assistance, you decide to match-make them. It might be none of your business, but you're an entrepreneur, and you are making it your business.

The first thing you should do is figure out whether they already have someone they like. If they do, your job is easy—you only need to encourage them to ask that person out.

If they don't have anyone they like, but you just so happen to know the perfect person for them, then you should invite the two of them to a larger group gathering one that is conducive to conversation. If they are truly meant for each other, conversation will happen naturally and your job is done. However, what you shouldn't do is tell them that you are trying to match-make them. Your target will become wary and make their interaction

## Parliamentary Oversight Over CSC

**September 20**—Today Ottawa declared parliamentary oversight over the University of Waterloo Computer Science Club (CSC), stating the organization needs oversight of its “financial and operational integrity”. Incumbent Liberal Party Leader Justin Trudeau said, “Any organization who sees itself fit to present its members to the former Prime Minister Paul Martin sans pants cannot possibly be sufficiently sane enough to conduct an organization in an upstanding manner.”

The government parliamentary oversight shall consist of measures looking into maintaining accurate fiscal records, increasing transparency in the services they provide, and ensuring dress codes are adhered to. *mathNEWS* asked CSC members for their opinion on the matter. Names have been withheld for confidentiality purposes.

**mN:** What do you think about these new measures?

**A:** We can't be accountable for money we never had. Nobody gives us any money to manage; we have to make do ourselves. The things we sell to keep us afloat end up in our possession and all proceeds from these sales fund our events.

**mN:** How will these measures affect the day-to-day operations of the CSC?

**A:** You mean we can't just open mysterious boxes that just appear in the middle of the room any more? Darn.

**mN:** What do you think about the possibility about the CSC being restructured?

**A:** Dear God, you can't do that—Oh wait, the shadow cabal will still control everything so nothing will change. Sorry, I wasn't supposed to say that. Please excuse me while I fear for my life and disappear.

Zethar

with your chosen match have an air of awkwardness as they feel pressured to talk to them.

This is all you should do when trying to match-make someone. You should not try to get the two people to do things together in a game of truth or dare. This will not make people like each other, but might make them associate interacting with that person with discomfort and peer-pressure. I really shouldn't have to say this.

You also should probably NOT match-make your ex. The last time you were involved in their relationship, things didn't end well. It might be a way to clear your guilt, but it's best if you don't get involved.

Lastly, it helps to confirm a person's orientation before trying to match-make them. Remember in the match-making business, the only thing worse than 0% success is 50% success.

Beyond Meta



# Shipping Things Across the Country

*Not Actually a Rant About Canada Post!*

Hello all, and welcome to yet another Fall term at the University of Waterloo! This fortnight, I intend to outline various things to keep in mind when mailing stuff from some place to some other place.

We begin with the easy things: letters! It's easy to mail letters; buy some envelopes, buy some stamps, combine, and drop into mailbox/off at post office! This seems easy... Until you have to try to fold things nicely to fit them in envelopes, or you want to keep them flat/crease-less and thus need to use a large envelope with a piece of cardboard cut at the post office, or you try to deal with the different priced stamps instead of the 'Permanent' ones...

Yeah, definitely non-trivial. Which leads to our next item: food! (Ha ha, what a terrible segue.) Specifically, baked goods or similar, which won't immediately spoil while in transit. You may be familiar with this, due to family members mailing cookies or other baked goods around around Christmas. Other times you'd want to do this is if, for instance, a close friend or your significant other is far away and you want to brighten their day with your amazingly delicious oatmeal everything-chip cookies - or, if they don't like chocolate, oatmeal raisin cookies, whose recipe you've never made before but turned out pretty well anyway... But I digress.

To mail food, you want to treat it like other very fragile things; pack it in a hard outer shell, and pack it tightly inside with wax/parchment paper, or enclose everything in a baggie and then stuff packing materials around it. The goal is to be able to shake the container without its contents moving around. If this occurs, then it should be in good shape for its journey. Don't forget to

let the baking cool before placing it in any containers; it will be less malleable this way, and thus will be 1. easier to pack, and 2. easier to unpack, on the other end.

Finally, we shall discuss the dreaded "move": packing up everything you own in one place and shipping it to wherever you are next living. This is, to put it bluntly, hard. There will be a lot of boxes. There will be a lot of clothes, even more than will fit in a suitcase, somehow (unless you're really good about keeping your closet pared down). There will be books, which are almost the most terrible thing, because you (and your friendly neighbourhood Purolator guy!) can barely lift the boxes containing them; you have to spread them out over the rest of the boxes, to mitigate the mass contribution. And most annoyingly, perhaps, there will be the oodles of things which are screaming at you, "No! Don't pack me! I'll break!" in a whiny helium chipmunk voice. You have to pack these things tightly and securely, wrapping them in thick layers of protective wrapping tissue paper, or other such things.

The most important thing to realize about doing the "move" is you will almost surely manage to break something. It's not your fault; that's just the way it is. Thankfully, there are things like glue or tape that can heal most material wounds, or else maybe it wasn't really that important after all? It takes time to get over it, but it'll be okay.

Just don't forget to label things "This Side Up" and "Fragile"; maybe add a "Thank You! :)" to make your postal worker's/delivery guy's day. They are, regardless of what the Internet or the government may say, people too.

Scythe Marshall

## Yet More Completely Random and Sometimes Shocking Facts!

- Isaac Asimov is the only author to have a book in every Dewey-decimal category.
- The Neanderthal's brain was larger than ours.
- Each of the suits on a deck of cards represents the 4 major pillars of the economy in the Middle Ages: Heart - Church, Spades - Military, Clubs - Agriculture, Diamonds - Merchant class.
- 1 in 5,000 north Atlantic lobsters are born bright blue.
- The King of Hearts is the only King without a mustache.
- The word "lethologica" describes the state of being unable to remember the word you want.
- Every year, approximately 98% of the atoms in your body are replaced with new atoms.
- The 3 best known western names in China are: Jesus Christ, Richard Nixon, and Elvis Presley.
- The human heart creates enough pressure to squirt blood 9 metres (30 feet).
- Police dogs are trained to receive commands in a foreign language—commonly German, but more recently Hungarian.

- You burn more calories sleeping than you do watching TV.
- Canadian researchers have found that Einstein's brain was 15% wider than normal.
- Clans from a long time ago that wanted to get rid of unwanted people without killing them used to burn their houses down. This is how we got the expression "to get fired".
- Every human spent approximately half an hour as a single cell.
- The plastic things at the end of shoelaces are called aglets.
- "Goodbye" came from "God bye" which came from "God be with you."
- The elephant is the only animal with 4 knees.
- The US has never lost a war in which mules were used.
- A lion's roar can be heard from 5 miles away.

You can find these and more amazing facts at <http://www.cs.cmu.edu/~bingbin/>.

Blue Phoenix

## profQUOTES

"Actuaries do it continuously under the bar... Yeah, I know that was weak. That's as good as Act Sci jokes get."

Hardy, ACTSC 331

"If I tell you I take something from a box with only a panther in it, something has got to be a panther."

Garbary, PMATH 336

"Now that you guys are getting older, we can sit down and talk about this."

Garbary, PMATH 336

"Okay, let's prove the hell out of this."

Garbary, PMATH 336

"This is about as applied as you could hope for a PMath class."

Garbary, PMATH 336

"By unlimited, I mean at least 4."

Garbary, PMATH 336

"Don't believe me, ask the dishes. I mean, don't believe me, here's what we do."

Garbary, PMATH 336

"It's not actually magic, it's science. But close enough."

Skrzydlo, STAT 333

"At least there are no 5's today. Wait, let me check!"

Skrzydlo, STAT 333

"Yo dawg, I heard you like pgfs so I put a pgf in your pgf."

Skrzydlo, STAT 333

"I won't actually strangle you because I would get in trouble for that."

Skrzydlo, STAT 333

"And this is equal to some crap. [*Writes  $F_\lambda(s) = \text{crap}$  on the board.*] You don't want to see me do calculus."

Skrzydlo, STAT 333

"Not only is it not 36, it's 42. The answer to life, the universe and everything."

Skrzydlo, STAT 333

"Oh my god. If you turn your head this way it looks like a demonic happy face."

Skrzydlo, STAT 333

"I don't like drawing faces on the board. They just keep looking at me."

Skrzydlo, STAT 333

"This might be off by 2, but it's not important as it's only a constant."

Li, CS 370

"Do not form M explicitly. Otherwise, you'd be dead."

Li, CS 370

"We're going to give you the opportunity to shoot your self in the foot."

Nomair, CS 246

"NOOB CO is probably not ready to brace the cruel fronts of the Internet."

Au, CO 250

[*In a post asking for suggestion for last-lecture review topics.*]

"Please get your suggestions in by noon on Monday. If there are no suggestions at all, the instructor may simply decide to play 2048 on the overhead projector for 80 minutes on Tuesday."

Au, CO 250

"I'm not going to spend time justifying my curves."

Hewitt, MATH 137

"If you have a matrix with repeated eigenvalues and you sneeze, the eigenvalues will probably become distinct."

Miller, ECE 682

"I'm in the Bomber drinking beer, and you're still trying to figure out the answer to the question."

Buhr, CS 343

"This is proved by imagination."

Ma, CS 466

## Call For Questions

*We're interviewing the Dean!*

Perhaps for the first time in history, *mathNEWS* has finally decided to venture out of its comfort zone of made-up news and made-up interviews, and to hold an actual interview with the Dean of Mathematics, Ian Goulden, titled "Dating Advice from the Dean". This will require actually talking to people, but fear not! We, the Editors, are now experts on this so-called "human interaction", after having read and studied Formerly Alone's "How to Social Well" (page 7).

However, this alone is insufficient for our great undertaking—we need submissions for questions to the Dean. Thinking of things to say was not outlined in the guide, after all, and without your help, our interview may be retitled, "An Hour of Awkward Silence With the Dean." If you have questions of mathematics, love, or love of mathematics for our beloved overlord, please submit them to [mathnews@gmail.com](mailto:mathnews@gmail.com) or through the **BLACK BOX** on the third floor of the MC.

The Editors

## New University Discovered

After sheltering in the comforting, smelly embrace of the MC all week, my supply of Gatorade and stale Cheetos ran out, so I was forced to venture out into the dangerous unknown on the hunt for sustenance. My mind segfaulted when I attempted to run a path-finding algorithm to the nearest store, so I ended up defaulting to a linear search and wandering straight down the street.

As the hordes of students thinned and the familiar sight of the Sugar Cube (DP) faded behind me on the skyline, I thought I had truly escaped the shackles of higher education. Much to my surprise, as I continued my lonesome journey, I encountered a new crowd of fresh student-like faces. What was this madness? More students, but not near UW? Like a deer in the headlights, I stopped to stare, too shocked to continue.

Looking more closely, I slowly noticed they were not quite like the typical UW student I was so used to seeing. Instead of dark somber colours, large numbers of people were dressed brightly in purple and yellow. A strange feeling hung in the air... what was it? It had been so long since I had seen those expressions... Happiness? School spirit? The words rolled awkwardly across my tongue, rusty from disuse. Surely such feelings were impossible... I decided they must just be drunk. These shining, well-dressed individuals with social lives surely could not be from UW! Perhaps they were adults with real jobs... but no! I observed textbooks in some hands and overheard smatterings of conversation about classes. Perplexed, I looked around and noticed some strange grey building. Squinting through my glasses, I read, "Wilfrid Laurier University." What! Another university, mere steps away from our own! My mind lurched to a halt as it tried to grapple with the revelation. I glanced around wildly. No bulky backpacks with tech company logos. No pew pew laser lanyards hanging out of first-years' pockets. No geese. Wait... NO GEESE! OH MY GLOB, NO GEESE! Surely I must have slipped my earthly bonds and gone to heaven, because there was no other way the situation before me was possible!

In sheer ecstasy, I fell to my knees and began sobbing uncontrollably. After several stares from passersby and a sharp tut-tut from an old lady, I managed to suppress my sobs and rise to my feet again. Smiling through my tears, I decided I would stay here forever! I would stay in this joyous land, free from the reign of

terror led by the geese overlords. Eagerly, I rushed through the Laurier campus to find the math faculty and establish my new home.

I ran hither and thither, to and fro across the campus, but try as I may, I could not locate the math faculty. I stopped to ask a passerby, "Dear Sir and/or Madam, couldst thou point me in the direction of the sacred temple of mathematics?" They gave me a long, blank stare. I tried again, "Yo, where's the math faculty?"

"Oh, there is none," they replied. Dumbfounded, I stared at them in disbelief. After an awkward pause, they gave me a short, nervous laugh and started walking away quickly, glancing back over their shoulder every few seconds. I continued to stare into space. Surely this was not possible. No math faculty... but then where could the university's poor, innocent souls study the world's greatest discipline? Where could they learn about algebraic proofs and Poisson distributions and breadth-first searches? Where could the thirsty dip their cups into the golden fountain of knowledge? WHERE COULD THEY CELEBRATE PI?!? This final surprise was too much for me to handle and fell to the ground in despair.

When I came to in the Emergency Room, there was only one goal left in my mind. After completing my assessment and being released from the hospital, I slowly walked back to the MC, a somber expression on my face. I glanced around me. The geese droppings on the lawn, the fedoras on the heads, the 80's paint job on the DC, all so comfortingly familiar. A faint smile crept into my eyes. Finally arriving at the MC Comfy lounge, I sunk into a couch, closed my eyes, and sighed in relief. I breathed deep the sweet stench of the hundreds of mathies who had sat on the couch before me. Hallelujah, I was home! This home may not have had the community and cleanliness of Laurier, but it was still home. Home, where the pure mathematicians roam. Home, where I could debate sorting algorithms with strangers. Home, where video and board games were more popular than house parties. Home, where I could wax poetic on the virtues of pi or e to the sound of roaring applause. Home, where I could be as nerdy as I wanted and still be accepted. True, it wasn't Laurier, but that didn't stop UW from being a paradise in its own way.

BlueberryMuffin



**Fig. (Left) Wilfrid Laurier University students in their usual garb.**



## The Heist

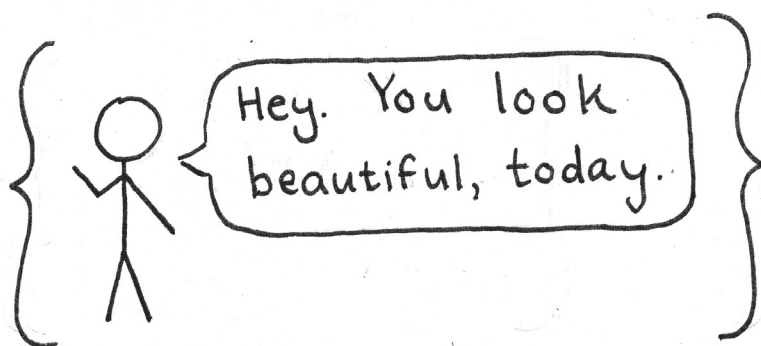
For those who are not aware, there is currently a very nice, very tall rock residing inside the lovely building that is EIT. If anyone were to pull off a heist in Waterloo, that three-story-tall rock would be the thing to steal. Here's how to do it:

- Get your friends in on the plan; you'll need someone to do all the heavy lifting. Make sure they can be trusted. I would suggest holding an intense trust exercise beforehand, involving skydiving, a penguin, and a cactus. If the exercise video goes viral, all the better.
- Notify these friends of the target—it won't help if half of you are working on stealing a different, three-story-tall rock.
- Acquire the appropriate tools, including, but not limited to, a chainsaw, a sledgehammer, and that penguin you used in your trust exercise (every heist needs a mascot). A blueprint of EIT may also be helpful. This can be found at [http://plantoperations.uwaterloo.ca/floor\\_plans/](http://plantoperations.uwaterloo.ca/floor_plans/).
- Bring your friends, tools, and mascot to EIT during the middle of the night. Quietly slice off a layer of the rock and replace it with a layer of rock-like styrofoam/wood/plastic/cardboard/popsicle sticks. Have one of your friends carry that slab of rock home.
- Repeat step four every night until the entire three-story rock is replaced with three stories of something-that-is-not-a-rock-but-that-looks-like-a-rock-and-talks-like-a-rock. Meanwhile, convert the slabs of rock you've acquired into tiles and use them to renovate your bathroom and kitchen.
- Once all of the rock has been removed, send a letter to the university announcing your "plans" to pull off a heist involving their beloved rock. Watch everyone panic as they start guarding a fake rock. Bask in the chaos for a few days.
- Relying on a mixture of ingenuity, positive thinking, and sheer stupidity, sneak around the guards and dismantle the fake rock. Transport the material out of the building.
- Deny all knowledge of the heist when questioned. For example: "No, Officer, I have no idea what happened to that giant rock. On the other hand, check out my awesome new tiles!"
- Revel in the sweet taste of victory and enjoy the smoothness of your tiles!

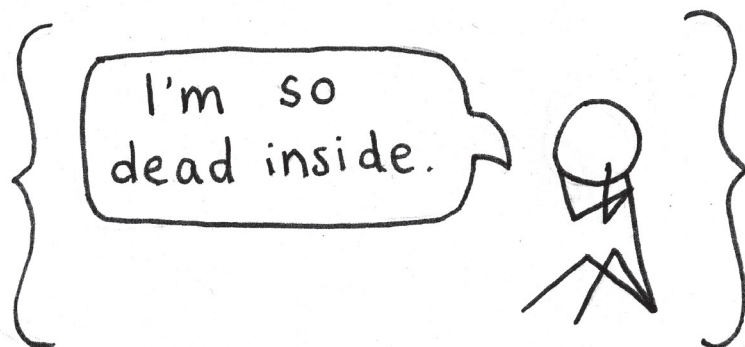
DISCLAIMER: *mathNEWS* does not, in any way, endorse theft. This article is meant to be humorous and the steps described should not be followed (ever). The author may have been hyped up on caffeine and sugar when she came up with the plan; subtlety is also not one of her strong suits. Please do not attempt this at the University of Waterloo.

XOXO

### COMPLEMENT OF A SET



### EMPTY SET



### UNION OF SETS



## The Heist's Disclaimer

*Translated to Japanese and Chinese and Back*

*mathNEWS* not intended in any way, the recommended theft. This article, which is described as, which means it is a sense of humor does not (until now) to go in the process. When you came

up with the plan, the author, she would have been advertising on sugar and caffeine is not her strong suit, but also subtle. Please do not try this at the University of Waterloo.

## LaTeX and Latex

### *Both Beautiful, But Different*

First, some definitions. LaTeX is a document preparation system primarily for math, or anything else you please. It's modular, so it's very easy to learn in small chunks. The final character is  $\chi$  (chi), from the Greek word τέχνη (skill, art, technique). And it is a skill, produces art, and rewards technique.

By comparison, latex is a form of rubber. τέχνically, latex is only the naturally occurring form of rubber, produced from the sap of a specific tree by a process that involves chemistry or something like that. It forms a thin impermeable layer useful for gloves and condoms and so forth. The term "latex" is also applied to various synthetic compounds, and only a terrible pedant would suggest otherwise.

So, what's beautiful about LaTeX? Well, it makes all your work look cool with minimal effort. It adds a lot of professionalism to any math work you do, and it's not formally taught—it's something you're left to learn on your own. When it comes to grad school and/or any kind of research, it will help. It's fun stuff, too, for those who like to make computers do things. There are options that do any arbitrary typesetting task, but if all you want to do is create content, the compiler will format it for you. Open-source software is another good thing to use, especially for those who, like me, are far from CS. And LaTeX is practically the godfather of open-source software. Finally, it's just fun—you can write your own functions and macros for things to your heart's content.

Next, what's beautiful about latex? It's a thin, cheap, impermeable rubber barrier. So we can use it to prevent contamination in everything from food preparation to surgery to sex. Except for those people who are allergic to latex, which is just unfortunate. Because they have to get expensive niche alternatives. To more fully explain the beautifulnes of latex, consider the following syllogism:

- (1) Unsafe sex (without protection) is BAD.
- (2) Sex is GOOD.
- (3) Therefore, protection is GOOD. All hail the mighty latex!

### Summary of differences, in list form

#### THINGS NOT TO DO IN L<sup>A</sup>T<sub>E</sub>X

- Perform surgery
- Prepare meals - food is not found in your computer.
- Contain bacteria
- Have an allergic reaction
- Have sex

#### THINGS NOT TO DO IN L<sup>A</sup>T<sub>E</sub>X

- Your math assignments
- Find bugs in it
- Install multiple packages – don't double-bag.
- Write macros

#### THINGS TO DO WITH EITHER L<sup>A</sup>T<sub>E</sub>X OR L<sup>A</sup>T<sub>E</sub>X

- Define environments (`\begin{equation} ... \end{equation}` —or inside/outside)
- Fetishize it. Typesetting or skintight rubber. Whatever floats your boat, really.

tesseract

## Steak Sandwich with Curly Fries

The combination of these two is the reason why birds in the sky sing, why fish jump out of water, and why I always skip my steps—when I know that I'll have that steak sandwich for lunch.

The perfectly grilled steak: juicy, tender and flavourful, along with caramelized onion and horseradish dijonaise, making it sweet and creamy. It then goes on the grilled white sub-ish bread. Perfect.

Then the curly fries. I would say they complement the steak sandwich, but they are really a class of their own. There's something - something irreplaceable, something distinct, and all together extremely indulging about them. For those of you who have not the fortune<sup>[1]</sup> of tasting curly fries, let me clarify that it is NOT french fries that are curled. They are a whole different game, with different perfect spices and texture.

These are served at the REV's REvelation cafe. The author is not associated with the cafeteria. The author is associated with steak sandwiches.

<sup>[1]</sup> Or doom. Depending on whether you want to gain 10 pounds in freshmen year. Just kidding—I highly recommend eating it anyway, if you enjoy it. Be mindful of the fat and sodium though.

steaksandwich fan



# horrorSCOPES

## Twitter Edition

**ActSci:** Tweeting might be connected to life expectancy (everything else is). *Your unlucky number is:* In 10 years, people might not tweet.

**AHS:** You have a ridiculous and over-the-top bro attitude to express. *Your unlucky number is:* 140 characters to put it in is rarely ever eno.

**AMATH:** You've found a generalized solution to the Navier-Stokes equations. *Your unlucky number is:* This tweet is too short to contain it.

**ARTS:** Pictures are worth a thousand words. *Your unlucky number is:* Twitter disagrees. Any number of pictures is exactly 23 characters.

**Bioinformatics:** You've secured funding for your startup. *Your unlucky number is:* 3/4 of a million dollars you must spend. Responsibly.

**C&O:** You enumerate all possible tweets to find the perfect phrasing for yours. *Your unlucky number is:* Infinitely many bad options.

**CS:** You try to compress as much information into a tweet as possible. *Your unlucky number is:* 7 new languages for self-extracting info tweets.

**Double Degree:** You follow the right people to not miss any events on either campus. *Your unlucky number is:* 24 hours isn't enough time.

**ENG:** We are, we are, we are the engineers. We can, we can, demolish 40 beers. *Your unlucky number is:* 2 liver failures ... with a transplant.

**ENV:** You #TweetToSaveTheEarth. *Your unlucky number is:* -1 tree for each 100 thousand tweets.

**General Math:** You don't use social media, and prefer to talk to people. *Your unlucky number is:* 4 thousand friends

**Grad:** You are studying the effects of tweeting on peoples happiness. *Your unlucky number is:* 4 years until you can be happy again.

**Math Bus:** You try to make a viable business of retweeting. *Your unlucky number is:* 11 banned accounts for botting.

**Math Phys:** You hook up your particle collider to tweet when it detects new particles. *Your unlucky number is:* 14 months of inactivity.

**PMATH:** You're busy #liking LaTeX papers, wondering where all your friends are. *Your unlucky number is:* 5 friends on social media.

**SCI:** Your only career option is going to Med school. You hope that reading tweets boosts your SATs. *Your unlucky number is:* 0% increase.

**Soft Eng:** You implement a language for self-extracting info tweets. *Your unlucky number is:* 400 thousand lines, and it's still not working.

**Stats:** You determine the probability that your roommate tweets at any given time. *Your unlucky number is:* -0.3 r with you following them.

**Teaching Option:** You try to incorporate Twitter into your teaching plan. *Your unlucky number is:* 30 explicit student responses.

**Undeclared:** You try to determine what to declare by the end of this tweet. *Your unlucky number is:* 6 years of undergrad.

glgambet

## elseWHEN

Occasionally, when editors are feeling uninspired and need to fill space, they go through old *mathNEWS* archives and pick articles that look like they can fit in the blank space. Here's an article from 2005, Volume 98, Issue 1.

### Security Advisory

*mathNEWS vulnerabilities rated "Extremely Critical"*

Two unpatched vulnerabilities have been discovered in *mathNEWS*, which can be exploited by malicious people to compromise any copy of it, inconveniencing and possibly injuring its users.

First, due to its paper content, a copy of *mathNEWS* may be used to inflict paper-cut injuries on those in its immediate vicinity.

Second, a lack of adequate fireproofing allows malicious users to burn copies of *mathNEWS*. This vulnerability may be prevented by coating *mathNEWS* in a fire-retardant substance; however, this will not address the first vulnerability and its seriousness.

Suggested workarounds include:

1. Handling *mathNEWS* only when wearing adequate fire protection.
2. Finding a victim, er, colleague to read *mathNEWS* to you.
3. Avoid handling or being near *mathNEWS*.
4. Ignoring this advisory, and reading *mathNEWS* anyways.

Richard



# Zethar's Guide to Tabletop RPGs

## *An interactive form of story-telling*

The lone light source flickers in the room in a vain attempt to break the tension within. A party of adventurous heroes face a mob of unruly monsters... in just a moment all hell will break loose. How will the stalwart fighter handle the situation? Or the crafty rogue or hot-headed wizard? How will they deal with the room full of traps, or the high court of the kingdom? These are the types of questions that can be explored in a tabletop role-playing game (TRPG).

The world of TRPGs is very diverse; players come from many walks of life with different aspirations and backgrounds, with different goals and philosophies, bound together under the encompassing umbrella unified by one desire: to tell a story, be it through combat, subterfuge, or old-fashioned imagination. TRPGs also come in a variety of flavours, from stereotypical Tolkein-esque high fantasy to space opera, or from slice-of-life comedy to gothic political intrigue. Different systems of TRPGs have different focuses as well, which place emphasis on plot, character development, combat, etc. If one is willing to dive into the rich culture and find enough like-minded people, one is bounded only by imagination.

When one speaks of TRPGs, many people would think of Dungeons and Dragons (D&D), the franchise which is most commonly associated with the genre—it is even probably true that many people think that TRPG is synonymous with D&D, since D&D holds such a large share of the market, coupled with the advantage of age and publicity in the past. D&D is a fantasy system which focuses on tactical combat (the origins of the franchise originate from a war miniatures game) but is still flexible enough to tell stories outside of combat.

The D&D franchise hides a schism which divides its player base. In 2000, D&D came out with the 3<sup>rd</sup> edition (and revised it to 3.5 in 2003), which many people consider a very comprehensive tidying of the rules, considered by some to be a revitalization of the rules. It is on the rules-heavy side (the grappling rules are notoriously complex) but allows for a lot of customization, and much material was produced for the edition. In 2008, the 4<sup>th</sup> edition came out, which simplified the rules greatly—perhaps over-simplified—much to the chagrin of a majority of the existing player base. The 4<sup>th</sup> edition focuses the spotlight on its combat, which is much easier to run and maintain, but sacrifices a lot of the flexibility outside of combat, notably in story-telling. Many people would agree the 4<sup>th</sup> edition is not a poorly-designed game, but its philosophy is drastically different from the previous editions that it might as well be a new game. That being said, the 4<sup>th</sup> edition is much more newbie-friendly than 3.5 (Watsfic Friday night RPG runs the 4<sup>th</sup> edition for those looking to try—at least until the 5<sup>th</sup> edition comes out, probably before the end of the term). Due to the aforementioned schism and the fact that the core of the 3<sup>rd</sup> edition rules are available under the Open Game License, a variety of forks of 3.5 exist, either with continued support (cf. Pathfinder) or with a different theme (eg. d20 Modern).

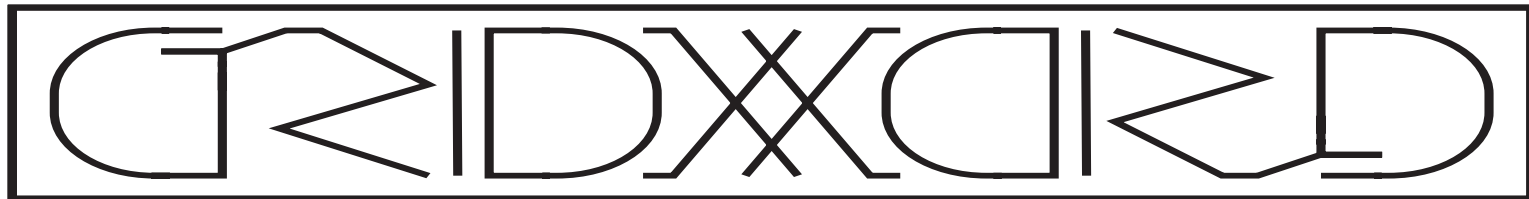
In the next article, I will discuss other TRPGs. In the meantime, feel free to read up on the subject or go to Friday Night D&D, run by Watsfic every week. I really suppose that if you would like me to answer your questions, you can write your question (or comment, or hat mail) and place it in the **BLACK BOX** located between the Math Coffee and Doughnut Shop and the Comfy Lounge on the 3<sup>rd</sup> floor of MC.

Zethar

## Would You Rather?

- Always say everything you think or never speak again?
- Have one 1,000-year life or ten different 100-year lives?
- Trade your ability to read and write for the ability to read minds or just stay as you are now?
- Be able to have your physical appearance however you want but lose half your memories (you cannot choose which ones) or stay as you are now?
- Always lose or never play?
- Forget who you are or who everyone else is?
- Die saving 10,000 strangers knowing no one will ever know it was you or live knowing everyone will know you decided not to save 10,000 people's lives?
- Have a time machine that can only go back in time or have a time machine that can only go forward in time?
- Be hated for who you are or loved for who you are not?
- Cut off one of your fingers or pay \$5,000 of your own money for the person you hate most to go on a spa vacation?
- Have your partner or your employer look through all your text, chat, and e-mail history?
- Be filthy rich and live 400 years ago or be poor but live today?
- Go back in time before the 1800s and meet your ancestors or go forward in time after 2200 and meet your descendants?
- Have your thoughts always broadcasted live for everyone to hear or never be allowed to wear clothes but keep your thoughts to yourself?
- Live in a world with no problems or live in a world where you rule?
- Have more time or more money?
- Have 1 innocent person executed for a crime they never committed or have 10 serious criminals get off scot-free?
- Have a rewind button in your life or a pause button?
- Have a zombie apocalypse or World War 3?
- Always know when someone is lying or always get away with lying?
- Have your mind serve as an iPod so you can listen to music anywhere or be able to watch your dreams on TV?
- Be able to talk with all animals or be able to speak every single human language?
- Find out that the life you are living now is an ongoing memory and you are actually older and looking back on your life with life-like detail or that your life is a very detailed imagination coming from a younger you imagining your future?

Blue Phoenix



## gridCOMMENTS

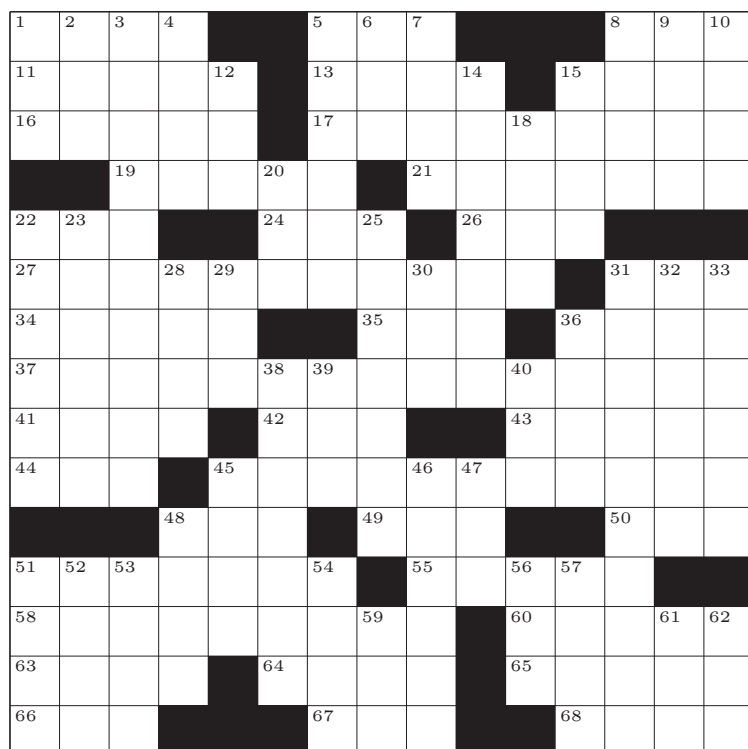
*Aphid Milk*

My goal for the term is to make these look like New York Times grids. Let's go!

Submit your solutions to the **BLACK BOX** (by the Comfy Lounge on floor 3 of MC) by 6:30 PM on Monday September 29<sup>th</sup>. Include your name and your answer to this issue's **gridQUESTION** - the best one decides the winner (of a \$5 C&D gift card) in the event of a tie: "Why not?"

Cheers,  
unit

## This Week's Grid:



## gridCLUES

*Across:*

1. Food-catchers
5. French guy
8. Swiss franc
11. Acid type
13. Steed breed
15. Actor's prompter
16. Big bib
17. Not up to snuff
19. Canadian marijuana company
21. Earlier than expected
22. General (with "term")
24. Not no
26. Cozy lair
27. Rock type
31. Persian phoenix
34. Camel's cousin
35. Ariana abbreviated
36. Weep and wail
37. 66°33'44"S
41. Indian Lilac
42. Cheerios grain
43. Peritoneal pouches
44. Alcohol withdrawal (with "the")
45. Kabul's country
48. Sindarin speaker
49. Night prior
50. Royal Research Ship
51. Bests
55. Large artery
58. Documenting document
60. Grampuses
63. If \_ \_ \_
64. Needled and threaded
65. Australian motorcycle gangster
66. Tot's toy
67. Stroke
68. Kristiania

*Down:*

1. Sheep's bleat
2. Naughty nuisance
3. Zeroth birthdays
4. Frosty flakes
5. First
6. White-tailed eagle
7. Doo-doo
8. Caribbean country
9. Caused a penalty
10. \_\_\_ curve:  $y^2 = x(x - ap)(x + bp)$
12. Three thirds
14. Battle sash
15. Battled for in '44
18. Mouse to a mouser
20. Ocular orb
22. Land in water
23. Old network protocol
25. "Atheist" anagram
28. Prayer leader
29. Graffiti, say
30. Tir à l' \_ \_ \_
31. Dirty ovals?
32. Late-night looper
33. Washes up
36. Sometimes wireless
38. Money boxes
39. "It" game
40. Here, to Henri
45. Succulent soother
46. Old "go away"
47. The One
48. Water whirl
51. Life sentences?
52. Pronto \_ \_ \_
53. Spider's web, e.g.
54. Ooze slowly
56. Mr. Ford
57. Quartet with an absentee
59. Great dread
61. To be ill
62. Search engine optimization

## Mathematical Puzzle

Suppose you want to build a polygonal room with each wall constructed from a linear mirror, and a single light source somewhere in the room. (Assume 2D room, with perfectly reflective mirrors that obey geometric optics, and a point source light source.) Is it possible to build such a room and place the light somewhere in the room such that there exists some area in the room where no light reaches?

Please submit solutions to the **BLACK BOX**. A reader who submits a correct solution will receive a \$5 C&D gift card, and in the event of multiple correct submissions, the winner of the \$5 gift card will be determined by random draw.

edogawa