

math NEWS



Volume 117, Issue 1
Friday, Sept 23rd, 2011



lookAHEAD**mathNEWS**

September 23	Issue #1 falls down the rabbit hole
October 3	Writers gather for a very important date writing Issue #2
October 7	Issue #2 loses her head at croquet

MathSoc

Tuesdays	Games Night in the Comfy at 6:30pm
Thursdays	Special nights in the Comfy!

Centre for Career Action

September 24	Job postings #1 open 7am
September 27	Job postings #1 close at 11:59 pm
September 30	Job postings #2 open 7am
October 3	Job postings #2 close at 11:59 pm
October 3	Interviews begin
October 28	Rankings open

Bomber

September 28	Tight'N'Bright Bomber theme night
September 29	Bomber Presents: Paper Lions

Misc

September 21	International Day of Peace
October 10	Thanksgiving: no classes!
October 31	Halloween

Clubs' Day*Right now in the SLC*

The Federation of Students' Clubs and Services Days, located in the SLC, began yesterday and run until 3 p.m. today. These days are a great opportunity to learn about the amazing clubs and services with which FedS is affiliated. Whether you like break-dancing, cheese, puzzles, Yu-Gi-Oh, or charitable work, there's a club for you here at UW. And if there isn't, start one!

So get off your lazy behind and get to the SLC. Become a part of something more than your n courses a term. Find some like people, find some different people. Enjoy the time you have here on campus; before you know it, it may be coming to an end.

In da club,
prime8

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The five Stark wolves: Lady (Harrison Gross), Grey Wind (Will Hughes), Nymeria (Sacha Koohgoli), Shaggydog (Murphy Berzish), Summer (Michelle Conway)

mastHEAD*The Carpenter and the Walrus along the beach*

Another year, another term in Wonderland, or Waterloo. Whichever you prefer really. Coming back to campus is always a bizarre adventure, especially after being on co-op or being off for the summer. All the students on campus come back in strange forms and shapes, where they speak nonsensical terms and languages until the sun falls out of the sky out of sheer weariness. And those are just the upper years.

The froshlings are a very special breed. Like Alice, they are lost, dazed and confused until someone points them in the right direction. However, Waterloo is very, VERY similar to Wonderland, and the residents troll the fuck out of the new tourists. Froshlings can be convinced of the silliest of things, like thinking that you can navigate the sixth floor without the risk of running into a minotaur, that the other half of the egg fountain is at the Bomber and is the source of the omlettes there, or that midterms are a breeze.

So this week's *mastHEAD* question stands thusly: What's your favourite thing about the new batch of frosh?

MeaninglessQuips ("Naive, and barely legal"), RampagingAngryBrodhan ("SO...MANY...GIRLS!", RedMetal ("New footrests"), k! ("Everything! So tasty..."), theDreamer ("Magic"), waldo@<3.LE-GASP.ca ("New minds=new input on *mathNEWS* craziness/overall LAWLZ"), moment ("I'm easily the cream of the crop of froshlings"), Lich ("costs very little to spawn"), Shannon ("Being here, as I am a froshling"), snippet ("nothing, they haven't been defined in my field of mind"), Zethar ("The rivers will now run red"), theSMURF ("Boots of +3 to blocking classroom exits"), =) ("Pie =D"), Stripe hat ("Top hat"), MustardMap ("They prevent enemy rushes"), cowED ("Herding them to the MC 7th floor"), (define this (not cool)) ("Giggity-giggity-goo"), Uuo ("Bodycheck practice"), Soviet Canadian ("Adorable minions are now in surplus"), washbasin ("I am a froshling"), GrooveyED ("Being an 'authority figure' to them"), randomname ("People to sell used (useless) textbooks to!"), forked process ("People to hit on who haven't already rejected me"), FuzzyED ("Food for the long night. Winter is coming.")

MEF Sez*We endow you with cake!*

The Mathematics Endowment Fund is a charity run by and for undergraduate mathematics students. Every term, we fund projects which help improve undergraduate education in this faculty. As of this winter, we have crossed the \$1,000,000 mark in projects funded! As such, we will be holding celebrations and giving away free cake on the third floor of the MC outside of the C&D at 2:00 PM on Thursday September 29th.

The MEF Annual General Meeting will also be held the same day, September 29th, at 5:30 PM in the Comfy Lounge, MC 3001. Stop by to find out what the current state of the fund is, ask any questions you may have, or find out how to get involved.

Ian Charlesworth
MEF Director Fall 2011

mefcom@student.math.uwaterloo.ca

Prez Sez

This is just the beginning

Hello Mathies! I hope that all of you are having a great start to your term, no matter if you're in co-op, going into your last year here, or if you're a new first year student. Things are already underway nice and quickly, and I predict that this will be one of our best terms yet. We have a lot of old faces but also a lot of new ones too and we hope that those new faces enjoy what we have to offer.

First, let me tell you how important it is for you to find out all MathSoc has to offer. We have many services and events available to you on a daily, weekly, termly, and annual basis. Explore our website at mathsoc.uwaterloo.ca to find out all about what we do. And to get frequent updates about our events, LIKE us on facebook at facebook.com/mathsoc or sign up for our Announce email list found on our website.

Now, a quick summary as to what I have been working on this past week and my plans for the near future. My main focus has been on promoting MathSoc with MathSoc day at the end of orientation week and with Welcome Week events. I have also been working a lot on transition with the exec and financial things as well as clean up of a few things left unfinished from last term such as club office transition. This is nearing completion now, though I hoped that it would have been completed before I came into office this term. Another big thing has been Director/Board applications, council nominations, and first year class representative visits. From an external standpoint, I have interacted with Feds already this term and I am looking to contact the other societies in the upcoming week about plans for the term.

I think I've covered it all, but there is always so much going on. As always, feel free to come by and say hi at any time. I always love to see a friendly smile :)

Andre Gomes Magalhaes
MathSoc President

prez@mathsoc.uwaterloo.ca

VPE Sez

Welcome to the Fall 2011 term, everyone! Hope you're all excited to be here! We're gearing up for a great term at MathSoc with lots of exciting events.

Director and event coordinator applications were due Wednesday, so we should have a full social team by the start of next week to start organizing their events! If you missed out on these applications but still want to get involved in games night, variety nights, charity ball, or general social events, it's not too late! Send me an email vpe@mathsoc.uwaterloo.ca to get involved!

If you have any ideas for awesome events that you want to see MathSoc do, drop me an email or pop by MathSoc and we'll make it happen!

Alex Russell
MathSoc Vice President, Events
vpe@mathsoc.uwaterloo.ca

Want to contribute?

Come on out to production night, email us at mathnews@gmail.com, or drop something off in the BLACK BOX by the comfy!

VPF Sez

Budget meeting soon!

Hey yo!

My name is Jessica Janssen and I am the new Vice President of Finance this term!

The budget meeting is right around the corner, which means that all of the clubs and MathSoc will start holding events soon (if they haven't already)! Make sure you get involved and have some FUN!

Just a reminder that refund forms are due next week and Athletics forms will be due in the middle of October. Don't forget to check out the delicious items in the CnD! Make sure you stop by MC 3039 and say HI!

Jessica Janssen
MathSoc Vice President, Finance
vpf@mathsoc.uwaterloo.ca

VPO Sez

Hey everyone!

What's pOppin'? I'm Anna Merkoulouvitich and I'm this term's VP, Operations, or as I like to call it VPop for MathSoc. I'm funny... I know! I'd like to welcome you back to UW Math for the Fall 2011 term. I'm responsible for making sure all of our services are running smoothly from day to day. This includes managing the MathSoc office (MC 3038), which sells the cheapest calculators on campus, MathSoc novelties (nerdy math shirts!), the website, MathSoc servers, and all the different services we offer to our clubs, like publicity. I hope you are getting excited for everything we're planning for you.

This week your executives have been busy interviewing all our potential directors to build a fantastic team to serve you! Even if you haven't run for a director position, there are still a huge number of ways to get involved. You can register to hold an office hour at mathsoc.uwaterloo.ca/office. You can join one of our many fantastic clubs, or you can join one of our many boards (responsible for a variety of different things). Send us an email if you'd like to get involved.

If you're wondering what kind of services we offer... keep reading, because they're coming RIGHT UP!

1. Lockers: Sign up for a locker on-line at mathsoc.uwaterloo.ca ... and for free you can use that locker ALL term.
2. Work Reports? We got that covered. Bind your work report for JUST 75 cents at our office.
3. Calculators? Have no fear... you're in the clear. We sell pink-tie approved calculators, OR we can sticker your existing calculator.
4. Photocopying and printing? Cheapest on campus.

We love to see you involved, so if you're interested... feel free to check out the website, send us an email, or visit our office at MC 3038/3039. You can always email me personally at vpo@mathsoc.uwaterloo.ca

Have a fantastic rest of September.

Anna Merkoulouvitich
MathSoc Vice President, Operations
vpo@mathsoc.uwaterloo.ca

VPA Sez

SO MUCH STUFF!

Hi Mathies! Welcome to the Fall 2011 term here at University of Waterloo. There is much information to convey, so let's get to it!

WatPD Course Proposals

On Monday, a subset of the Cooperative Education Council met to discuss potential agenda topics for future meetings. On the docket was WatPD new course proposals. These courses are "Business In Society", "Creativity-Innovation-Entrepreneurship", "Ethical Decision Making in the Workplace", and "Intercultural Skills." The courses are exactly what they sound like they would be, but more robust than the current courses available through WatPD. Descriptions of the courses are available at www.mathsoc.uwaterloo.ca/Blog. Decisions regarding the approval of these courses should be happening over the next few CEC meetings as some proposals will need more information provided. Implementation of the courses would occur at least 8 months after approval so to give Centre for Extended Learning time to build course material.

Senate Undergraduate Council

This month's SUC saw the approval of various Academic Program Reviews including but not limited to Computational Mathematics (outlined in previous *mathNEWS* issues), Drama, English, and Environment Resource Studies, with little discussion with the exception of a call for more universal metrics.

The main topic of discussion was that of the dropped Access Copyright License. The Access Copyright License covered all start-to-finish print copying (photocopying, not electronic copying). At a rate of \$3.38/Student FTE (\$84K/year total) with a 10 cent royalty on any course pack page that is from AC material, the agreement was on pretty solid ground. From the outset, the Association of Universities and Colleges of Canada and Access Copyright agreed to disagree with regards to fair dealing, always a point of contention. 35 of 77 members of the AUCC members previously bound by the AC License (including the University of Waterloo) pulled out of the agreement after Access Copyright publicized new pricing models and more intrusive surveillance.

As a result, all copying for course packages must satisfy one of the following four: (1) received direct permission from copyright holder and pay applicable fees, (2) the work is public domain, (3) UW already has a license for use of the material, or (4) fair dealing under copyright act offers some other exemption/loop-hole. It is not yet clear how this will affect the cost of course packages. A Q&A regarding copyright is available on the library website as well as an extensive FAQ.

Faculty Council and Co-op Education Council

At the time that this article was written, this month's Faculty Council and Cooperative Education Council meetings had not taken place; however, they have now passed. For details regarding decisions made by the Co-operative Education Council, and Faculty Council, visit www.mathsoc.uwaterloo.ca/Blog.

Any questions about the above committees and decisions, as well as any other academic or co-op related issues can be addressed to vpa@mathsoc.uwaterloo.ca.

Bryanne Pashley
VP Academics

FEDS Sez

Set phazers to "awesome"

Greetings Mathies! Your Federation of Students (FEDS) councillors here to give you the run-down on what's happening at FEDS!

What is FEDS, you say? FEDS is your undergraduate student union here at uWaterloo. They represent the interests of undergraduate students to the university administration, and the municipal, provincial, and federal governments. They also offer a wide variety of services, businesses and events to students. For more information, visit feds.ca or check out the "First-Year Focus" in the next issue of *mathNEWS*.

So who are we then? As your Math Councillors, we sit on the Students' Council, the governing body for FEDS services, and act as your outlet through which you can express any concerns you have, and from which you can learn about what's going on in FedS. The purpose of the Students' Council is to uphold the goals of the Federation of Students under its Charter and its by-laws, and to establish policies of the Corporation. We also do fun things like approving a \$2 million budget!

FEDS has been very busy in the last couple weeks, welcoming students to campus. Orientation Week (for first-years) and Welcome Week (a free week of events for all UW students) were both a huge success! Highlights of Welcome Week included the Down with Webster concert, Rock Star Live Karaoke at the Bomber and the pancake breakfast on Monday morning. If you missed it this time, don't worry, there's always next year!

If you're interested in getting involved with FEDS, there are a whole bunch of opportunities at feds.ca/opportunities. Or you can head over to the SLC Great Hall before 3pm today (Friday) to check out all the awesome student clubs and services on campus! Specifically for first-years, FEDS is looking for volunteers for the first-year commission, email firstyear@feds.ca for details!

Need more info? Email your questions, comments or concerns to mathcouncillors@gmail.com or "Like" the Federation of Students on Facebook for info about upcoming FEDS events!

Stay tuned to the next *mathNEWS* for more updates!

Saleem Khan, Andre Magalhaes, Jesse McGinnis, Alex Russell
& Josh Shabtai

Your FedS Math Councillors
mathcouncillors@gmail.com

CMC Flash

We're just a bunch of flashers

Hello and welcome to a new term, possibly your first term! We're the Computational Math Club; maybe you met us during Club Day, maybe you've just heard the dark and seedy rumours. We do computational math-like things and things not really related to computational math at all. It's hard to tell sometimes since we have no idea what computational math actually is. We have a new office in the main third floor hallway: MC 3034. Come stop by if you want to talk about math things, if you want a working terminal in a relatively quiet room, if you have ideas for events you want to run, or if you just want to sit and have a cup of tea. Hope to see you there.

- Computational Mathematics Club

CTRL-A Sez

The Club That Really Likes Anime is building a giant robot to take over campus! Want to help? Watch lots of anime? Like to cosplay, play games, eat Pocky, reading manga, and socializing with other otaku? Then come on out to our events! General meetings are Mondays, Project nights on Wednesdays, and Games Nights on non-show Fridays. Our first show this term is coming up fast on Friday September 23 and September 24, check out our website at ctrl-a.org for more details~ KIRABOSHI!

CTRL-A

University Terminating the Lease on Federation Hall, and Why You Should Care

Also, what you can do about it!

The History: 25 years ago, students just like you began paying a total of \$3 million for Federation Hall. This was owned by the university (just like every other building on campus) but would be leased to the Federation (Feds), and placed under their control. The lease was renewed except with good reason. For a few years, this worked nicely. Feds used the building, and held many events there. It became a popular place where lots of students hung out.

The Hitch: In 2003, the university administration terminated the bar agreement and Fed Hall and Bomber closed down. In 2004, the lease came back up for renewal. Details are not available, but it seems that the administration used the bar agreement (which is the only way we would be allowed to serve alcohol at Fed Hall and Bomber) to pressure Feds to drop the clause that guaranteed renewal of the lease. The next time the lease was renewed, a clause allowing either Feds or the university to end the lease without the other party's agreement was added. Early this year, the university told Feds that they will be terminating the lease, and taking control of the building.

The Reason: The university recently opened a "Student Success Office". The question came up of where to put them, and the answer ended up being in South Campus Hall, where Food Services used to be. But now they need somewhere for Food Services. The answer was somewhere that already has a kitchen. Fed Hall. Bud Walker would have you believe that our Hall goes unused, but that's simply not true. Last year alone we had over 100 events (that's roughly 2 per week), 57 of which were organized by students. The Festival Room had a similar amount of use last year, but far less was by students.

The Problem: We, as students, directly paid \$3 million for that building. Can you guess how much we have been offered in compensation? If you guessed **nothing**, you're right. The administration seems to think that they can just screw us over, and that we'll stay silent and let them.

What you can do: Speak up. I cannot say this enough. Speak up. The Save Fed Hall initiative is all about getting students informed, and voicing our opinion together. If we stand together, they cannot ignore us. Visit our website (www.savefedhall.com) and send a letter to administration and the Federation, letting them know you will not stand for this. You can also sign up for our mailing list, and we will let you know of anything else you can do as the opportunities arise.

mcdx@www.savefedhall.com++

Capital One Data Mining Cup

Capital One Financial proudly announces the first Capital One Mining Cup at UW!

What Is It?

- An intergrated case competition in applied statistics and business strategy development exclusively open to UW students.

Why do you want to participate?

- A unique chance to apply knowledge and tools gained in school to a real-life business problem
- Top teams will present to Senior Management of Capital One and will enjoy a night out with all expenses paid
- Students will get to attend a two-hour workshop with senior analysts from Capital One

What skill set does your team need to succeed?

- Working knowledge of statistical modeling
- Good understanding of business concepts
- Access to statistical software

What are your next steps?

- Form a team of maximum 4 students (must be enrolled at UW)
- Register by September 30th by sending an e-mail to waterloo@capitalone.com
- Final Submission will be on November 24th

CSCFLASH

Greetings students, new and old! This is the Computer Science Club Flash, your fortnightly source of all happenings of obscure hours on the third floor of the MC. Here's a reminder to stop by the office (MC 3036/3037) and say hello to the new executive and our office regulars! If you haven't yet joined us, membership is only \$2 per term, and gives you access to our computing services and extensive dead-tree library. We encourage anyone and everyone to join, regardless of your program or faculty. Only an interest in Computer Science is required.

Office staff training will occur at 4:30 pm today, September 23, in the CSC office. If you're looking for an opportunity to get involved with the club, make sure you drop by! We will also be holding the first tutorial of our UNIX 101 series on September 29 in MC3004 from 4:00 to 5:30 pm, where we will introduce beginners to the magic of the Unix operating system.

Look forward to our first code party of the term in early October. Make sure to come out and hack with us on some code or work on your own projects, enjoy the electronic music, and snack on the provided edibles! We will also be holding guest talks that will occur throughout the term. Hope to see you there!

Calum T. Dalek,
Chairbeing Extraordinaire



Computer
Science
Club

First-Year Focus

What is First-Year Focus?

One page in each *mathNEWS* issue will be dedicated to a "first-year focus," where we'll give you some old-timer tips about campus life as well as valuable information about services and opportunities at uWaterloo! This also promises to be a great read for upper-years looking to get better acquainted with campus!

Upcoming Events

- Monday, September 16: Campus Rec Fitness Classes Sign-Up Begins, Campus Rec Office (PAC)
- Tuesday, September 27: Provincial Election All-Candidates Debate, 4pm - 6pm, Room TBA (Check feds.ca)
- Wednesday, September 28: Drink Your Vote, 6pm - 8pm, The Bombshelter Pub (SLC)

Upcoming Counselling Services Workshops

Procrastination: Monday, September 26, 2 - 4pm, NH 2080
Stress Management: Tuesday, September 27, 5:30 - 7:30pm, NH 2080

Study Skills: Sessions daily from Monday, September 26 to Friday, September 30.

See counsellingservices.uwaterloo.ca for a full list and to register for these courses.

Opportunities

Get involved in MathSoc! They need office workers, directors, board members, council representatives, event coordinators, and more. Email mathsoc@mathsoc.uwaterloo.ca for more information.

FEDS Clubs Day is today (Friday) until 3pm. Head over to the SLC Great Hall to get involved in all the student services and clubs that FEDS has to offer!

Join FEDS First-Year Commission to plan services and events for your fellow first-years! Email firstyear@feds.ca for details.

Service Spotlight: The Mathematics Society (MathSoc)

MathSoc is your undergraduate student society. We represent your interests to the faculty, university, and community at large. We also offer a wide variety of services and events to our students.

Office: MC 3038

Website: mathsoc.uwaterloo.ca

Email: mathsoc@mathsoc.uwaterloo.ca

Phone: 519-888-4567 x32324

The Top 5 Things to Know About MathSoc

1. MathSoc offers many services to students. In the office, you can find cheap photocopying, printing, and stationary. On the website, you can find the exam bank and sign-ups for lockers. MathSoc also administers some student space, such as the Math Coffee and Donut Shop (MC 3002) and the Comfy Lounge (MC 3001).

2. MathSoc plans lots of fun events every term for all different interests! Every week they hold games nights and variety nights (starting soon!), and then they host Pi Days, parties, trips, carnivals, and other awesome social events throughout the term. Academic events are also a focus, with resume critiquing, mock interviews, profs talks, and more planned for this term!
3. MathSoc is math students' main source of representation to the faculty. Council, MathSoc's governing body, comprises of representatives from each year and program. If you ever have any issues with your courses, your profs, the tutorial centre, or other resources that the faculty offers, you can let your representative know and MathSoc will bring it to the attention of the Dean. Council also determines the direction of MathSoc and controls funding allocation, so if you have any issues with what MathSoc's doing, let your representative know! A list of reps can be found on the website.
4. MathSoc offers lots of leadership and volunteer positions to students. They need office workers, directors, board members, council representatives, event coordinators, and more! Visit the website or send them an email for more details about getting involved!
5. MathSoc wants to stay in contact with you! Like them at facebook.com/mathsoc, join the mailing list through the website, or drop by the office to see what's happening!

Handy Tips

- If you're playing on an intramural team, apply for Athletics. MathSoc will subsidize the Campus Rec fee for all math students on your team! Email vpf@mathsoc.uwaterloo.ca
- FedXpress in the SLC sells ice cream for really cheap prices on Mondays - all scoops are only \$1.25!
- Math Soc sells the cheapest calculators on campus! Drop by MC 3038 to have a look!

Alex Russell
VP-Events

Resume? HELP!!

Get a job, guaranteed!*

Are you going on co-op in the winter term? Could you use some help with your resume? MathSoc is running resume critique sessions for anyone who could use another set of eyes on their resume. Volunteers received training through UW's Centre for Career Action and will be available Sept 23, Sept 26, and Sept 27 (evenings).

Space is limited. To sign up, visit tinyurl.com/critiquesignup today! Any questions may be directed to vpa@mathsoc.uwaterloo.ca.

Bryanne Pashley
VP-Academics

*for reasonable definition of "guaranteed"

Staying Safe This Term

Well, condoms are a good idea too, but...

A large number of you own laptops, netbooks, tablets, and smartphones that you carry with you every day. Here are some tips to keep yourself (and your friends) safe this term!

1. Backups

Life happens. Someone knocks the power cord to your laptop when your battery is dead. Your laptop is knocked off a table hours before an assignment is due. You spill water over the keyboard. You get viruses. Your hard drive suffers random corruption in a metadata block. In any of the cases, a good backup can make recovering easier (and perhaps prevent you from losing crucial marks). Keep backups of important data. My favourite tool is Dropbox, although I'll admit it's a bit of a Ponzi scheme. Sign up at <http://db.tt/0oG39MZ> (Disclaimer: this is a referral link; you can get an extra 250 MB by using this link) or at dropbox.com/edu. You can also use rsync, Amazon EC2 or Google Storage directly, or DVDs, if you so care. (Note: USB Thumb Drives tend to fail far too often for my liking; use these as a last resort. The reason why could fill a *mathNEWS* article on its own.)

2. HTTPS

Firesheep was unleashed upon the world about 11 months ago, and your Facebook sessions have been vulnerable ever since. While the use of WPA2 (i.e. eduroam) helps mitigate the problems of sending cookies unencrypted, your best bet is to enable HTTPS on sites where it isn't enabled by default. If you type <https://www.facebook.com/> into your web browser, you should be prompted to properly enable HTTPS support on your account. If not, you can always enable/disable it through your Account Settings... though it might interfere with your ability to play Farmville. (As of the time of writing, Gmail and most banks enable HTTPS by default.)

3. Be Cautious

This should go without saying, but don't leave your laptop unattended, and refrain from lending it to friends (and actively monitor what they're doing if you *have to* lend it to them). If you save your password in your browser on UW-ACE, chances are it's stored unencrypted and can be recovered with a few clicks in your browser's preferences window. That WatIAM password can be used to unenroll you from courses during registration, reject job offers on JobMine, and impersonate you on CS servers. While having someone perform these actions without your consent or knowledge are probably against university policies and/or the law (IANAL), if you let yourself be taken advantage of, it may be too late to rectify the damage by the time you find out. Besides, letting someone touch your computer might mean having nyan.cat as your home page when you get back. *[Still better than goatse — Ed.]*

Security News

For the truly paranoid, researchers at the Ekoparty security conference in Buenos Aires demonstrated BEAST (Browser Exploit Against SSL/TLS) which uses JavaScript and network sniffing to perform a plaintext-recovery attack on TLS 1.0. While

TLS 1.1 and 1.2 are unaffected, few sites and browsers support them. For details, see http://www.theregister.co.uk/2011/09/19/beast_exploits_paypal_ssl/page2.html.

Finally, users on Mac OS X Lion have one more reason to be wary of lending their laptops or leaving them unattended: a user's password salt and hash can be found simply by running a single command in the Terminal. See <http://www.defenceindepth.net/2011/09/cracking-os-x-lion-passwords.html>.

Stay safe!

!able

The Green IT Advisory Group

The Green IT Advisory Group is interested in understanding printing attitudes and practices on campus. As a result, we have developed a survey to help us grasp the current printing culture. In order to help us gain a better understanding, please visit <http://gitag.uwaterloo.ca/questionnaire/survey.html> and complete the survey.

This survey is voluntary, private, and confidential. We do not collect names or any other identifying information. The survey is anonymous and will take approximately two minutes of your time.

N Things to Notice in the New Term

Waldo found some froshies!

- There's a LOT of new froshies on campus (as demonstrated by the sheer amount of new people at *mathNEWS* this first production night).
- Waterloo has been living up to its name but no one seems to have overflowed the loo.
- M3 is now hosting classes...LARGE classes, so good seats may be hard to come by.
- The realm of academia has changed slightly so some upper-years may be confused at the new material in frosh classes.
- The co-op process begins for some students...welcome to the HELL that is JobMine. For others, the hell is continuous.
- There's apparently a provincial election next month. PREPARE TO VOTE.
- Ninjas are everywhere but if you notice them, they're doing their job wrong.
- New term = new opportunities = new choices = new mistakes to make = new things to rage over!

waldo@<LE-GASP.ca

Interesting Math

Knots and the Mathematical Method

Welcome to a new term of **Interesting Math**. This is probably the first *mathNEWS* many people are reading with an Interesting Math column, so I should probably take the space to re-introduce the column. *Interesting Math* aims to survey a variety of mathematics outside of what is seen in the curriculum here. While I try to give this column universal appeal, it is rather difficult to do this, considering the cumulative nature of mathematics. Therefore, if you can't understand the column on a particular fortnight, don't write it off forever.

This installment will also be a bit different from others. Owing to the number of first years on campus, I will attempt to illustrate not just mathematics, but also the mathematical method. In doing so, I'll make the occasional appeal to intuition, and leave more gaps than I might usually; these gaps are for the reader to fill in to get an idea of what to do.

Since the Fields Undergraduate Network is holding a workshop in Knot theory tomorrow (10 AM in MC5158, lunch will be provided), we'll introduce knots in this article.

Mathematical Knots. To approach something mathematically, we first need a formalism, an abstraction from the real world that keeps only the important details. A first idea is to represent a knot as a path in three dimensional space. This presents problems: as you either know or will soon find out, the real numbers are a mathematically strange place. A simpler approach might be to look at how knots are represented in knot books: as arcs with crossings. These objects are purely two dimensional, and we can specify that arcs must have an over and under crossing, and arcs only cross in twos. (You can actually show that this can be obtained from the three dimensional formulation, but this is subtle thinking.) Now, we have an idea of what we'll consider a knot: a diagram of over and under crossings. A natural question about knots is when they can be untied; if the two ends of our string aren't attached then the knot can be untied, so we also require that the knot not have ends. Figure 1 has some examples.

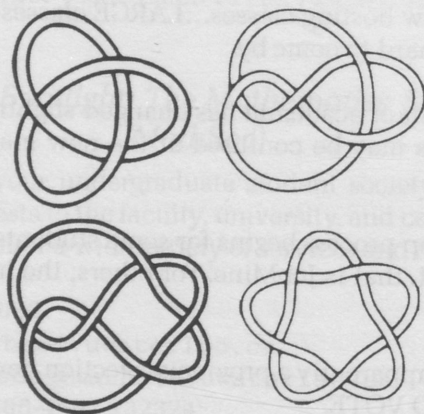


Figure 1: Some examples of knots.

The first question we might want to ask about our mathematical knots is when two knots are equivalent. Our physical intuition about knots that we are abstracting suggest we should be able to push strands around and rotate and reshape them, without changing crossings. We also have some ways to change crossings: we can untwist a loop (call that Move I), we can pull two loops off from on top of each other (call that Move II), and we

can move a strand over a crossing (call that Move III). (These are known as the Reidemeister's moves, and the fact that you only need these to manipulate three dimensional knots is known as Reidemeister's theorem.) If one knot diagram can be turned into another by a sequence of these moves then they represent the same knot. (Figure 2 shows these moves used on a single strand/crossing..)

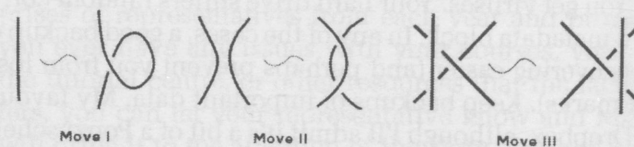


Figure 2: The Reidemeister moves.

So we have some drawings in the plane, and a way to manipulate them, but as mathematicians we must ask have we actually defined anything? If our moves are too powerful—or knots are simpler than they appear when one tries to untangle headphones—every knot will turn out to be equivalent to the unknot, which won't be very interesting. The diagram for the trefoil has three arcs, and at every crossing all three arcs meet. The diagram for the unknot has only two arcs meeting at each crossing. This suggests that the trefoil has a property the unknot does not, which would mean it is knotted. How do we capture this observation formally? It seems to have to do with three strands meeting at a crossing. The problem is that this is destroyed if we apply some of our moves (try it yourself, twists are particularly effective at this), but maybe we can save it. The key idea is in the number of strands; if we mark each strand in some way that is preserved by our moves we'll be in business. So, we give each strand a colour (or since this is in black and white, we give them patterns), and the rule we want to maintain is that at every crossing either we have only one pattern (because we twisted a strand) or we have all three patterns (the property we want to preserve).

Can we do this with our moves? Move I is obvious; when we put in a twist we assign the same pattern to all components. Move III is also clear; when we move a strand past a crossing we preserve that strand's pattern. Move II is a bit trickier. In the case where two strands are the same pattern it is clear things work. When two strands have two different patterns the fact that we're working with three patterns becomes helpful: we can use the third pattern in the new arc created by the move. Now we can quickly inspect the trefoil and see that it cannot be the unknot: any sequence of moves untying it must destroy its decorations, but the moves can all be applied in a way that maintains the decorations. Thus the trefoil is knotted.

We have one knotted knot, so now we might want to know if there are others. For example, take the cinquefoil (Figure 4), the trefoil's larger cousin. Is it knotted? An attempt to three colour it like before fails, but this isn't a proof that it isn't knotted. Maybe the presentation I've given you doesn't work, but if you toyed with things, it would. Maybe if you used more colours (five seems like a good idea, following the symmetry of things) you could get a similar result. You'll run into a problem

Interesting Math

Continued from previous page

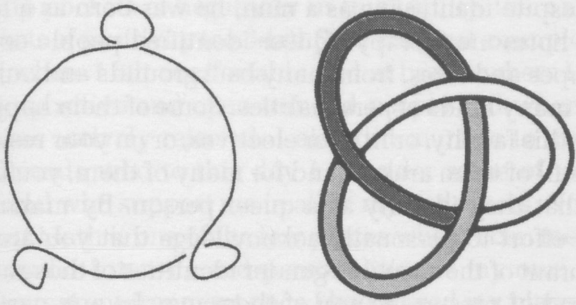


Figure 3: The unknot and the trefoil.

when trying to define your rules, though; you can no longer say that “all colours are present at a crossing” is the property. What to do to resolve this is this week’s problem of the issue.

Conclusion. This article introduces a very powerful and very general idea in mathematics, that of an *invariant*. An invariant is a property that we attach to a mathematical structure that is preserved by transformations of our object that we care about. An example many will be familiar with is the dimension of a vector space. Invariants provide us with the ability to distinguish mathematical objects from one another (in this case show that there are any knots at all) and explore their structure. The invariant defined above, three-colourability, is not very powerful and can only divide knots into two categories. It is not useless, though; its construction suggests a way to find more, better knot invariants using the Reidemeister moves. This approach to knot invariants proves very fruitful, and a great many knot invariants can be described this way. Despite this the area of knot invariants is still vastly uncharted. We do not currently know if there is a knot invariant that separates the unknot from other knots. Getting more ambitious, we do not know if there is a knot invariant that takes on a different value for every knot. If these problems interest you, or if you’re curious as to why knots are worth studying (other than that they are fun) come to tomorrow’s workshop.

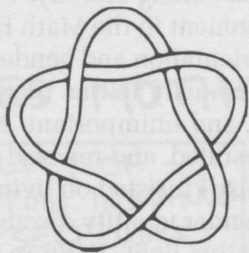


Figure 4: The cinquefoil.

Problem of the fortnight. Determine whether or not the cinquefoil is knotted. Your intuition tells you it should be, and the exercise above suggests that five colours are enough, so try to come up with a way to assign colours that you can make invariant under the Reidemeister moves. If you can’t, try to think about why you can’t, and see if you can prove it. If you can, try to untie the cinquefoil.

Edgar A. Bering IV
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Because I Can!

And So Can You!

The world is full of interesting things to do. Most of these are packed away in neat little opportunities. I write this article to expose some of the opportunities that I or people that I know have found. Also: Doing strange stuff for the sake of doing strange stuff is fun! However, since this is the first issue of the term, all of the ones this time around are rather easy and extremely safe.

- Go out and meet people. If you see a group of people standing around, go join them, find out what they are doing. Nine times out of ten they are doing something within the group and you are likely not very welcome. The other one time you’ll probably meet new friends. Did you know there is a fake moustache club? Neither did I.
- Install multiple operating systems on your computer. You can get Windows 7 for free from IST, and most flavours of Linux are free. Getting Mac OS is harder, but who wants to use a Mac?
- See how long you can spend without leaving campus. If you are in residence, this is much easier. However, it is possible even when living away from campus. It comes down to finding effective places to sleep on campus. Food is relatively easy, given the abundance of eating options on campus. Unfortunately, there are limits on most places to sleep on campus, but most are relatively lax about enforcing said limits.
- Dress up for no reason. Exams may or may not be sentient, so why take the risk? Fancy dress tends to intimidate people, so it will intimidate exams too. Alternatively, just dress up to confuse people. Oddly enough, a suit gets more strange looks than pink hair with a tie on the head.
- Learn practical skills. It is nice to be known as the person on your floor who can fix computers. It is just as nice, if not nicer, to be known as the person who can fix anything. For those of you who may want to know where to start, start with blinds. They tend to break quite a bit.
- Chill Out. There are more than enough serious problems in the world for everyone to have their share. Don’t try to take the weight of the world on your shoulders all at once. Not everything needs to be a big deal. Sometimes you should just kick back and enjoy life.

MeaninglessQuips

The 2011 Words in Rhyme

Since 1729, wasting precious time

There once was a man of the world
Who was very **STRONG**, and boulders he hurled
But he fled from his house
At the sight of a mouse
And into a tight ball he curled

The man realized he was a fool
And that he should take the mouse to school
But before he got far
He hit his head ‘gainst a bar
Was out cold, and is now under mouse rule

Doesn’t rhyme every moment
Cause he’s RedMetal

Rainbow Mathies: Frosh Edition

Welcome one and all, emphasis on the all.

[AUTHOR'S NOTE: This article was originally slated to be included in the frosh issue, but was excluded in this form.]

Hello there, new mathies! Welcome to the Math Faculty, your new home for as long as you'd like it to be. By the time you get to read this, you've had a chance to meet a number of your fellow peers, forged your place in residence, and have started to settle in. Most of you will have found somewhere to fit in, maybe even for the first time (I'll admit that I never truly felt like I was in a group until I came to UW). Unfortunately, for some people this isn't going to be the case; for some of us we're not going to be immediately accepted coming here. This series, which I write every two weeks in *mathNEWS*, is my attempt to try and alleviate this.

Allow me to explain with a little background. First, an introduction: My name is Darcy, and I am a male, third year student here at UW. I started in the Math Faculty, in Computational Mathematics, where I stayed two years before switching to Social Development Studies. I enjoy playing Sniper in Team Fortress 2, board games, Euchre, tobogganing, and reading young adult literature. Also, I'm gay. First year is still a fresh memory: PlayFair, a blend of anonymous faces, the Pink Tie was (and still is) my idol, and I can still taste the free Campus Pizza. And after my first couple of weeks, all I could think was: what did I get myself into. Residence wasn't very good to me; classes weren't much better. In a faculty so male-dominated, it was surprising just how lonely it could feel. For a long time, I didn't meet any other queer first years, and I looked everywhere. I felt like I was backed into a corner. My high school, for being in a small town, was so much more progressive than this, and this is a university! I wasn't about to go back in the closet just to make friends. Eventually I found my bearing, met some actually good friends, and forged my own place. But it wasn't easy, hence why I started this column.

This experience serves as the foundation for why I write this column for *mathNEWS*. First, I hope it's an outlet for queer mathies to hear about issues that concern them. Secondly, and possibly more importantly, I hope these articles serve as starting points for discussion among members of our faculty. I feel that one of the reasons this column is so important, one of the reasons there is such a stigma surrounding queer people in Math, is that people are so uncomfortable talking about these issues. Nothing will change this except more discussion, so I hope these articles will serve as a catalyst. As for this particular article, I want to use it to speak directly to you, and let you know what I believe you can expect coming into the faculty.

First, to students who don't identify as queer: This may come as a news flash, but there are queer students in math. Odds are you've talked to them already this week. They may have lied to you, or conveniently left out the truth, in order to make sure you think otherwise. They may very well be one of your new friends. Despite how effective you think your "gaydar" may be, odds are you have no idea if someone is queer unless they've told you. For example, you may notice some very loud, or highly effeminate, or well dressed guy two rows away in your Math 135 lecture. He may fit every idea you have on what a gay man is. You may even be right (statistically you wouldn't be, but we all make lucky guesses), but would you know that that sorta nerdy, straight-acting best friend of his who obsesses about

League of Legends and NASCAR is actually his boyfriend? Or maybe, despite identifying as a man, he was born as a female and is in hormone therapy? Queer-identified people come in many shapes and sizes, from many backgrounds and cultures, and have many kinds of personalities. Some of them happen to end up in this faculty, or in your electives, or on your residence floor. Not all of them are out, and for many of them, you'd have no idea that they identify as a queer person. By making the time and effort to personally acknowledge that you are woefully ignorant of the sexual or gender identities of those around you instead of presuming any of them may be any particular orientation, you take a great first step in making this faculty a better place for these students.

This is an important first step to make too, because students such as yourselves are the reason stigma exists in this faculty. Once you start classes and spending time amongst the general population of the Math faculty, I challenge you to take some time and observe how people treat homosexuality in their discourse. The faculty events were innocent enough, but some of the cross-campus events were stigmatizing. You did not see any queer couples holding hands, or dancing at the foam party or during Monte Carlo. You may notice some blatant examples of the stigma I'm talking about, for example, when people make homonegative remarks like "you faggot" or "that's so gay." If you pay close enough attention, you'll notice some more subtle examples, like how in conversations people tend to assume others are heterosexual without a basis for this assumption. These kind of behaviours breed a culture of queer negativity, because much of this behaviour is observed and learned. Now, I'm not saying that queer identified people are immune to this phenomenon, but behaviour like this can only spread when it is dominant and often observed. As a result, I beg of you: please be conscious of the message you are sending when interacting with your fellow mathies; don't be one of those students who mimics the behaviour around them, and therefore help spread the issue.

Now I'd like to take a moment and address those students who are queer or questioning directly. To be completely frank with you, the environment in the Math Faculty when it comes to issues of sexual orientation and gender identity is tough. At a minimum, I've personally felt as though this aspect of my identity is invisible, and unimportant. At worse, I have been actively shunned, insulted, and rejected by some of my fellow Math students because I insisted on living openly. Whenever I heard sexuality or gender identity discussed, it was usually in a derogatory or negative light. Early in first year wasn't that great of an experience for me. Lucky for me, I came to school totally out, but I could notice people in my faculty group purposely avoided me because of the Pride band I wore. Even in the small group of friends I did make, you could tell they were uncomfortable with my sexuality. Any mention of an attractive girl would spawn an extended conversation, but bringing up the date I had planned resulted in an awkward silence and change of subject. I can't imagine how much worse it would have been if I was in the closet. I mean, how could you turn down an otherwise attractive person and not make your friends suspect? It took me a while before I could find a group that I felt comfortable connecting with.

Rainbow Mathies: Continued

Info at the bottom

With all that said, though, the situation is not all bleak. While there are pockets of negativity in this faculty, there are plenty of pockets of positivity too. MathSOC is a great example of somewhere where I felt comfortable and at home, where I was able to meet positive and open-minded people and where intolerance was actively rejected. I also did manage to make some great friends who to this day I consider some of my closest allies, and who support me in all of my endeavors. Not to mention that Math is one of the few places where I can meet people with similar interests and personalities as my own, so it became a great environment once I had forged my place. If you're unlucky, you may have a bit of trouble early on, but please remember that not everyone feels similarly to popular opinion.

Now, I understand that while finding your place in the Math faculty may be tough, it isn't going to be the only problem you deal with in your time here. I don't have space in this article to comment on all of these potential issues, especially since everyone's experience is different. Hopefully through this column

I will be touching on most of the these. Thirteen articles have been published, including a six article series on coming out. If you are interested in these, an archive exists on mathnews.uwaterloo.ca. Just Google "Rainbow Mathies site:mathnews.uwaterloo.ca" and you will get a full listing (sadly, the *mathNEWS* site isn't very good for searching).

If you are queer identified, and are looking for someone to talk to or for supportive allies, there are always resources available to you. You can learn more about GLOW and its offerings, including a phone line at www.knowyourglow.ca. Counseling Services is always available to you; their offices are open 8:30-8MTTh and 8:30-4:30WE, located in Needles Hall across from Student Awards and Financial Aid. If you need support and assistance immediately, you can call the Waterloo Crisis Center at 519-745-1166. If you'd feel more comfortable speaking with someone from a queer specific service, please contact the GLBT Youthline at 1-800-268-9688.

(define this (not cool))

Advice I couldn't give in the Frosh Issue

Yes, I'm calling them Frosh

There are many advantages to being at University, especially when you have also moved away from home. Unfortunately, many of these are not allowed during orientation week since they are of questionable political correctness. Thankfully, *mathNEWS* doesn't have to care very much about this.

The first thing that comes to mind when I think about things to "warn" froshlings about is alcohol consumption. If you would like to drink, there will be alcohol available for you to drink. This causes huge problems to people that have never drank before. Not knowing one's own limits tends to cause one to exceed one's limits. This may lead to hospital visits. Having EMTs come to your floor may be exciting, but it is most definitely not fun.

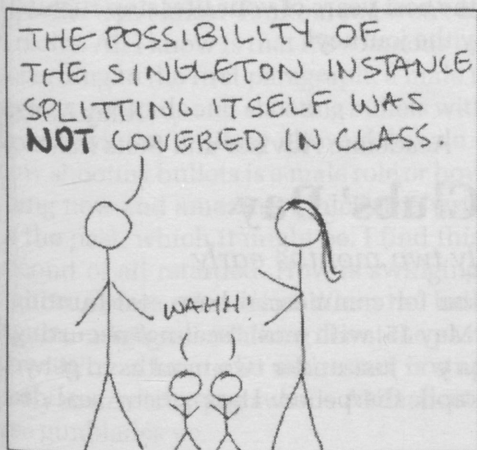
Secondly, there will be drugs available if you so desire. These are things that are altogether too easy to get pressured into trying in unsafe environments. Despite the fact that some of your

friends may manage it, ecstasy and alcohol do not make a good combination. The most important thing is to know what you are doing before you do it. If you wish to experiment with drugs, be sure to know what to expect and take appropriate precautions.

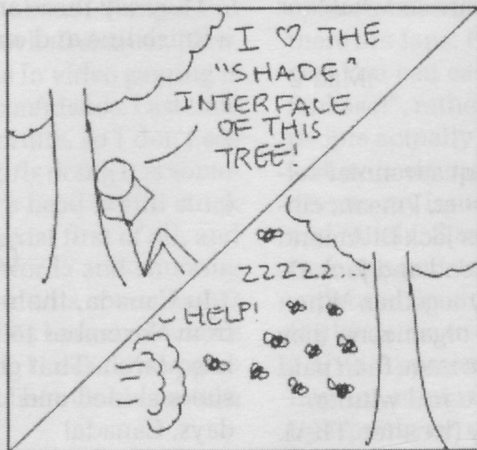
Thirdly, sex. This is a topic that is of special relevance to some people. Very few of these are in math. Sex may or may not be readily available, but it is most likely more available than in high school. Since this is often accompanied by emotional issues, it is often challenging for math students. The main thing with regards to sex is to make sure you know what you are getting into. If all you want is casual sex, be sure to tell your partner. If you think it is something more, tell your partner. Although it sounds trite, honesty is the best policy. Lying will end up hurting people. You do **not** want to be known as the person who hurts other people.

MeaninglessOmins

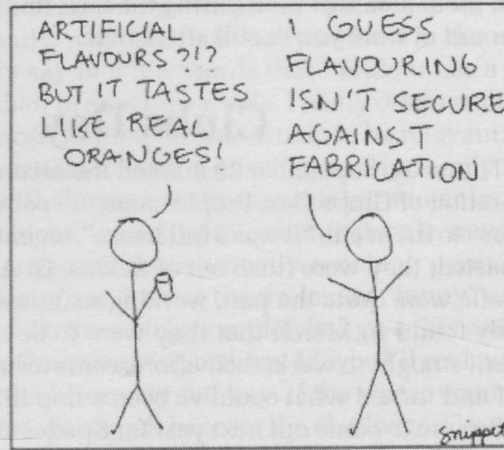
CS COURSES MOTHER NATURE FAILED



CS 246



CS 349



CS 458

Classroom Etiquette

All right, it's a new term and it's time to review how to act on campus before, during and after classes. This is mostly for the frosh since they have no idea what the fuck to do; however, I have personally experienced that a lot of upper years require this review as well.

Don't enter the classroom until the other class has left. Honestly, it's fucking annoying having people try to get into the class as people are exiting. And the people entering get confused for some reason as they wonder why they can't reach a seat yet. You do know it's impossible for someone to leave their seat if **YOU ARE STANDING IN THE FUCKING WAY**. Honestly, people exiting the class have right of way, and if you find yourself on the exiting part of this situation, please start shoving, hitting, clothes-lining, tackling, inflicting any sort of pain on the way out for the idiots trying to enter this early. Thinking logically, if you're outside the classroom, you're not late, and people exiting might have a class immediately after this one, so don't be a douche, or else someone might listen to this and proceed to throw you out of the way, like they should.

Save at maximum one seat for a friend, and it better be for a good fucking reason. I don't care if you want to sit with your eight kawaii friends; you don't have the right to fuck over other people who arrived earlier than your stupid friends. Of course, I think that saving one seat for, say, a friend who is using the washroom, late on the bus, etc, is okay. But that is very situational, and overall, just arrive early. Some people have bad eyesight, bad hearing, or something and require a front row seat, yet you decided to be a douche and save it for your friends who don't require this at all. Basically, don't save seats, or do it to a minimum.

If you're going to use your laptop for something other than taking notes, or following along sides, sit at the **BACK** of the class. I don't care about your friends on Facebook, your awesome APM in Starcraft, or the latest reddit posts while in class. A lot of us actually paid to learn, and it's distracting to see all this shit while listening to the lecture. Of course, you can say, "Stop being a bitch and ignore it," but honestly, most of us are a bit ADD and our minds will end up wandering without your distraction, but the distraction makes it more likely to wander. If you are going to use your laptop in the front against my suggestion, at least put up something everyone wants to see, like porn.

Follow these rules, and hopefully everyone can have an easier and more pleasant time during the next few years, or whatever amount of time you're still stuck here.

iMad 2

Clubs Day

Thursday, September 22 marked the second quadrennial celebration of Clubs Day. People came in spades - er, I mean, clovers - to the event. "It was a full house", organizer Jack Di Amond boasted; they were flush out of tickets. Di Amond and Jack De Trefle were quite the pair, working seamlessly together. When they found in March that they were to be co-organizers, they went straight to work; their effort seems to have more than paid off and turned what could've been a flop into a real winner.

Be sure to come out next year for Spades Day (location TBA). Pre-registration opens Monday.

prime8ofhearts

SWEET AND SOUR

SOUR

Students often come to my office in academic distress. My main advice for these students is generally:

Slow down! Take fewer courses in a term! What's your rush! In many of our plans, you can take down to three courses and still be a full-time student. This will help you work on your average and prevent fails.

As a student at UW, you can take up to 16 months off to refresh and recharge your batteries. If you are in co-op, this is still possible, just more awkward.

If you want to know more, visit your academic advisors!

Sweet

Top 10 Reasons to Hurry and Finish University, in no particular order:

- So you can stop learning. Who wants to learn??
- So you can pay more money for buses and not get student deals! Who wants a 'deal'???
- Two words - rush hour. You want to sit in bumper to bumper traffic with the rest of us!
- You want to pay your OSAP loan now, and no one will stand in your way!
- You want to wake up at 6 am... everyday... for the next 40 years!
- You love the idea of paying more taxes and not getting a tuition tax break!
- You love the fact that you will probably start with two weeks vacation... two wonderful weeks. Wait a second, how much time is there between terms again... ????
- No more traveling! Who likes going fun places anyways... right??
- Bomber nights, orientation, parties with friends, clubs (especially Stats), MathSoc movie nights, *mathNEWS*, math lounge...who needs it anyways! I'd rather stay up till 11 pm working on a proposal that includes graphs, tables and statistics. Yep, excitement!
- More responsibility. Doesn't it suck that you don't have to attend class and can just get up and go to a beach?? Wouldn't you rather have to be at work?? [ADVISING BRAINWASHING NOTE: You **MUST** attend class... You **MUST** attend class... You **MUST** attend class...].

They say these are the best years of your life; stop rushing to a finish line and enjoy the journey!

Riley Metzger
Academic Advisor and Stats Instructor

Clubs' Day

Only two months early

In Canada, the season for commercial harp seal hunting is from November 15 to May 15, with most "sealing" occurring in late March. That gives you just under two months to get your shoes shined and hakapik sharpened. Happy baby seal death days, Canada!

Tis' almost the season,
prime8lesspups

deanQUESTIONS

Once again, *mathNEWS* is running a column based on questions to the Dean of Mathematics, Ian Goulden. If you have any questions for the Dean, please send an email to mathnews@student.math.uwaterloo.ca or drop them off in the **BLACK BOX** on the 3rd floor of the MC by Oct. 1st. We will publish them, along with the answers in the next issue.

mathNEWS: Recently, the University Administration has decided to terminate the lease by the Federation of Students on Federation Hall. Upon student reaction at a Board of Governors meeting, the administration signed an agreement stating that they were to go into negotiation with Feds about the situation. Two months later, they have reneged on this agreement and have said there will be no negotiations. The administration is within their legal rights to terminate the lease. What is your opinion on the situation as you have heard of it?

Dean: As Dean of a Faculty, I am involved in, and have responsibility for, certain aspects of the buildings that the Faculty occupies. However, I have no involvement at all in the other buildings on campus, and no knowledge of the issues that arise in dealing with them.

mathNEWS: What is your opinion on suits? Dr. McKinnon, your associate, is often seen wearing various colours and styles of suit. University students seem like they dress much more casually than they used to, do you have an opinion on this development?

Dean: A suit is basically something that I wear when repre-

senting the University or Faculty at an event involving people outside the University. This need to dress up is not my favourite part of the Dean's job, since I prefer to dress as informally as possible, in general. On the other hand, Dr. McKinnon sure looks snappy in any of his many suits, doesn't he?

I have been in the Faculty for nearly 40 years, and throughout that time the standard dress for students has been T-shirt and jeans or something similarly casual; I haven't observed any change in the level of formality over that time, though students in the last decade wear much more black than, say, 30 years ago.

mathNEWS: What is the strangest colour tie that you own?

Dean: I have a horrible lime-green tie to (mis)match with an indescribably awful scarlet jacket. I bought both of these choice items at a secondhand store for a family Christmas celebration. Now that I think of it, the jacket would be almost appropriate with a pink tie...

mathNEWS: Are there any courses that are currently being developed in the Math faculty for the future? Are there any subjects for which you would like to see a stronger course be developed?

Dean: Courses at both the undergraduate and graduate level are constantly under development. Even those that are offered consistently, year after year, undergo revision periodically. The Associate Chairs and Deans look after the details of course development and revision.

MisPrint

Depending on how Imprint goes, this might be in every issue, or only select issues. I am now going to rip apart an article from the September 16 issue of 2011.

The article today: "Touhou: girls are manly".

Now, apparently this is a segment called Japan-No-File. Not sure if this is continuous or not; nor do I really care. I will not directly say the writer's name in order to protect the writer. Then again, I basically gave enough information just now for you to find the name; oh well.

Now, onto my problems with the article. Let's start with the first paragraph. I will directly quote it:

"A trend in video gaming is the display of female characters taking over male roles. Swinging blades and shooting bullets with confidence, there can't be a larger mass of fans than those of Touhou."

Now, I don't know Touhou, so I won't care about talking about it really. All I know is that it's a famous bullet hell shooter. Now, according to the first paragraph, a male role in video gaming is swinging swords and shooting bullets with confidence. Last time I checked, the military allowed female recruits, so I don't see how shooting bullets is a male role or how girls doing it is something new and amazing. Unless the writer's head is still stuck in the past, which it might be. I find this sexist first of all, and second of all retarded. How is swinging swords and shooting bullets a male role thing? When the hell did this come about? Again, unless we're talking about the past, this has no relevance now. Why it has to be addressed is stupid. Unless it's apparently manly to swing swords AND shoot bullets. Only men can use gunblades yo.

Second, the article begins to talk about the game for those who do not know about it. Which is good. He then talks about

subpar background and poor character art due to disproportions or something of the like. Honestly, how is this relevant? Is this a game review? When was aesthetics of a game something bad? What exactly are you trying to compare this to? Again, stupid.

He then proceeds to talk about the good music and how the series created spinoff games, music and doujinshi from the original. Basically commenting on how the fandom ended up creating this. He then leaves off on a paragraph describing ZUN, the creator and a joke of some sort relating to him only leaving his house for Comiket or beer.

Now, the article is overall about fandom. The article title, and the first paragraph barely touch upon this. The main focus of the article is non-existent. How does "fandom" have anything to do with "manly girls" or ZUN's personal life? The aesthetics commented — one being poor and the other subpar — are purely opinion based, which somehow "surprises" the writer for why there are fans. Finally, what the fuck really matters in the article? You can easily say in a few words that "Touhou has a big fanbase!", rather than in an entire article. I really doubt enough people actually know Touhou for this article to be relevant.

How is my rage article relevant? It isn't, possibly. It only addresses my issue with the poor writing for this particular writer and article. Sexist ideas, forcing opinions onto people, moving from tangent to tangent without actually touching upon the supposed "main focus", and using the irrelevant "funny" ending leads me to dislike the article completely. I give this article a 3/10. Apparently I'm reviewing articles. Maybe I'll review an Imprint comic in the future. By the way, if the writer wants to try ripping me apart, go ahead, I accept the challenge. Come at me bro.

Your Bro

Orange News

Because fake news are more fake than real news

Dear valuable readers of Orange News,

The Orange News Editorial Team is happy to announce that, after long labour negotiations and sleepless nights, the editors (aka me) have reached an agreement regarding a new contract with the writers (aka me), and thus a strike has been avoided. Orange News has been picked up by *mathNEWS* for a new six-issue editorial season, to the delight of fans and scorn of haters.

For those unfamiliar with Orange News, this column presents the student body of the University of Waterloo's Mathematics Faculty with real reactions, opinions, and insight regarding those vital, entirely fictional news stories that matter to YOU. Orange News has a whole team of experienced and attractive writers who are working 24/7 to bring you the best and most exciting news stories as soon as they occur. No need to thank us, we're just doing what we love.

In this issue of Orange News, we expose the findings of a new study in the demographics of the University of Waterloo, which reveals an immediate and frightening demographic crisis.

According to experts with no qualifications, an interesting occurrence happens every year at UW between August and September — the portion of the UW population aged 17–19 undergoes a massive increase. At the same time, at two different points in each year, typically in late April and mid-August, the population of students aged 22–24 shrinks rapidly. This mysterious phenomenon has been observed over several years, yet no logical explanation has been found for it.

In other words, the demography of the UW population mysteriously shifts a few times a year, with the ultimate result being an increase in younger students and an overall decrease in older students every year. A year-by-year trend reveals a further anomaly: the increase in the younger student population is increasing in itself, i.e. both the first and second derivatives of younger student population with respect to time are positive. Thus the younger student population relative to the number of older students is on the rise.

There is only one explanation to this effect — the students of UW are aging backwards. Indeed, this would be the only viable explanation for why the younger student population is increasing more rapidly than the older population, a trend that is in

reverse to the general Canadian trend, especially since the birth-rate of UW students is incredibly low. The only logical conclusion is that UW students defy the laws of nature and time, and do in fact age backwards.

The implications of this phenomenon are indeed serious. Although they are not yet fully understood, the demographic shift and backwards-aging will affect UW in many ways. The university will have to put an increased budget towards toddler day-care, for instance. Professors will need to learn how to change diapers. Also, a portion of UW's budget will need to be put aside for the legal team in fear of a lawsuit by Scott Fitzgerald, after I publish my autobiography titled "The Curiously Awesome Case of Orange Crush Button".

Under personal risk, your faithful, manly, and, oddly enough, still-single field-reporter has gone out to check with YOU, the real math students of UW, what you think about the fact that UW students must be aging backwards.

Michael, a first-year, said, "That doesn't make any sense. This is a joke, right?" I hate first years who don't know anything about *mathNEWS*.

Jennifer, a second-year CS student who has heard of Orange News before, said, "That's great, because now I can have a second childhood. I always wanted to watch more Spongebob without anyone laughing at me."

Kyun, or maybe Kyu, I couldn't quite make his name out, but he's in fourth-year, said, "It's crazy. I don't think people are aging backwards, but it would be pretty crazy. It's like that movie."

So there you have it: real reactions from on-campus math students. I'm sure those were very helpful and insightful in understanding and evaluating the newly revealed demographic shift in UW and its effects. The Orange News Editorial Team would just like to remind students that aging backwards can have serious health effects, and to consult a doctor if you find yourself younger than you were a day ago.

That's all for us, so from the Orange News Editorial Team, thank you for reading. For comments, questions, and hate-mail, contact the team at orange.crush.uw@gmail.com. For everything else, there's MasterCard. Good night, and good news.

Orange Crush

QUEST

There be dragons

For those students that don't know it, QUEST (the software used to manage our course enrollment) stands for "Questionably Useful Esoteric Software Torture". If you're a student at UW and haven't had to use this software, then I hate to break it to you, but you're not actually a student at UW.

There are a few reasons this software will drive you mad.

1. Finding the login. Are you a student? One in Dubai, or a normal undergrad, or a grad student? Or are you faculty? Isn't there a way that QUEST can check this instead of having four different logins?
2. The early warning that "No browsers except IE 7 and Firefox 3.0 are compatible with QUEST". Like, really? Please sup-

port Firefox 4+ and Chrome.

3. The "Processing...Processing...Processing..." message that taunts you in the top right corner while QUEST attempts to process your request but secretly waits until you get frustrated and decide to go do something else to fulfill your request.
4. Error messages.
5. When they say you can't enroll in the course, it's only because there aren't enough spots in the final exam.
6. You get a message saying the course has spots reserved, and it's a required major course; aren't those spots for you?
7. If you don't meet course prerequisites, you'll only find out once you get an override.

Not my fault I'm still in 1B

In Other News

Warning: The following column contains real, actual news items. Rated 14A.

- In UW news, the new Fall term started, welcoming lots of new first-year students (and don't forget about those new transfer students!), and marking the first time classes will be held at M3, the return of the UW football team, reminders about the city's noise bylaw, and a Down with Webster concert. But for most students, the new term marks the return of boring lectures, long assignments, incoherent profs, hard-as-hell midterms, and *mathNEWS*. Long live positivity.
- In more UW news, the new D2L system is replacing old UW-ACE for about 250 UW courses this term. As a student taking a bunch of those courses, I have to say, as much as I've talked shit about UW-ACE over the years, I'm beginning to appreciate it more and more. Long live progress.
- In Ontario news, the provincial election is coming up, which explains all those really boring commercials on TV. Who will win? Conservative Hudak, Liberal McGuinty, NDP Horwath, or Green Schreiner? It's almost as exciting as So You Think You Can Dance Canada. Don't forget to vote on October 6. Long live democracy.
- In world news, a tragedy occurred in Reno, Nevada last Saturday when a plane crashed during an air race. Nine are reported dead, plus several injured. The plane was piloted by a 74-year-old veteran stunt pilot, and although it's not clear at this point what actually caused the plane to crash, the Orange News Editorial Team would like to suggest that if you're over 65, maybe you shouldn't be flying a plane. Just a thought. Long live old age.
- In business news, RIM stock prices took another dive last Friday after it was revealed that sales of Blackberries during the second quarter were below expectations. This is more bad news for the Waterloo-based company, after falling into financial trouble some months ago. On the other hand, this is good news for everyone who used a short-sell on RIM. Long live perspective.
- In entertainment news, the Toronto International Film Festival wrapped up last weekend. Toronto was bombarded by celebrities whose lives are much more interested than yours, and new and exciting movies with famous actors and directors were featured for critics to judge. And yet, the cinema box-office was taken over by the featured two-week-only cinematic release of the Lion King in 3D. Long live the circle of life.
- In sports news, the 2011 Rugby World Cup is being held in New Zealand these days, for those of you interested in, or at least aware of, the existence of rugby. Surprisingly enough, Canada has so far won 50% of their games in the tournament, although they've only played two. Long live national pride.
- In living news, StatsCan finds that the rate of marriages has been falling for the past 20 years, while the rate of divorces has been rising. If these trends continue, Canada will have a negative number of married couples. Long live logic.
- In other news, the Orange News Editorial Team would like to announce that, if all goes according to plan, this will be Orange Crush's final term at Waterloo. This is sad news for readers who love my columns, and great news for those who hate them. Either way, I expect plenty of tribute articles from other veteran *mathNEWS* writers and editors. You still have five more issues of me to endure, though. Long live *mathNEWS*.

And that's all for In Other News. If you have important news stories you'd like to see featured in this column, or if you have any comments or questions, you can contact the Orange News Editorial Team at orange.crush.uw@gmail.com. Have a good week, good night, and good news.

Orange Crush

N Things Math Leaders Notice During O-Week

Waldo enjoys being behind a camera!

- Pink hair is the norm and mathies wear it proudly
- Softies like it in the face!
- Black Ties are apparently equivalent to EdCom.
- Any event involving leaders usually has hilarity ensuing and the occasional trololol.
- Tie Guard can have awesome dance parties but they can spontaneously arise anywhere.
- Leader tags are sometimes in short supply so get them while they last!
- Acquisitions, glow-in-the-dark, and the 7th floor of the MC provide amazing photo ops.
- Leaders can be fail at basic geometry.
- Collecting leader stickers is awesome (especially the one that looks like a pinwheel).
- Ninjas can be found at Tie Guard and apparently in Engineering?
- Once frosh get their ties, it's a LITTLE tricky to tell the Pink Ties apart.
- You feel the urge to be more productive whenever you're seemingly doing nothing.
- Catching leaders napping can most likely be accomplished by going to Tie Guard or any event on Saturday night.
- Nostalgia can set in when you see a super frosh receiving their team's flag.
- Media team can and WILL get in the way of anything and EVERYTHING.
- Working with your fellow leaders is an awesome and enriching experience!

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Angry Orange

There's nothing better than angry ranting

Hey, everyone. I'm Orange Crush. The following is a sort of angry rant, I think.

Here's something you might have seen in the Wednesday, Sept. 14 Daily Bulletin — apparently, the university is designing a new timetable system. A more efficient and accurate system. Our current methodology is best described as a non-optimized, labour intensive approach involving the copying forward of the previous term's timetable and building the new timetable by filling classrooms.

Non-optimized? No, duh. How many times have you run into time conflicts when you wanted to fit as many required courses as possible into your schedule? How many people do you know who need to stay an extra term because they couldn't take the courses they needed in the correct sequence based on pre-requisites? Have you ever had to get from the MC to the edge of HH, or to Laurier, in 10 minutes?

But here's what really bugs me — “The Provost has approved the purchase of a Canadian-made suite of software and a multi-phased installation for the production of the Winter 2013 schedule of classes.”

Why? I thought UW is supposed to be the top university in Ontario, possibly North America, when it comes to computer science and mathematics. Why not grab a few CS and C&O co-op students and get them to make a system for us? It'll probably be cheaper and a custom-made system will work better for UW than anything we buy. Hell, I remember one assignment in CO370 which basically made me optimize a class schedule. Sure, it was a much smaller problem, but the principle is the same. Why are we outsourcing something that's supposed to be our core competency?

Am I the only one who sees a problem here? Am I missing some obvious issue? Am I crazy? Why is our scheduling system — and I'm not even talking about Quest or Jobmine — non-optimized when we have the brain-power to create something great?

Seriously, somebody tell me what's going on.

Orange Crush

N things to do for a unsuccessful first week

- Don't arrange fees
- Fail to attain all your textbooks
- Completely forget you have assignments
- Waste all your freetime doing nothing productive
- Get no sleep
- Interrupt your profs
- Zone out in class
- Apply to positions within clubs/societies which you cannot fulfill
- Lose your phone and/or watcard any number of times
- Lose any other important possessions (money/ID)
- Receive a injury that impedes mobility or keeps you from your schooling
- Make friends with me

Soviet Candian

N Things to Notice in the New Term

Waldo found some froshies!

- There's a LOT of new froshies on campus (as demonstrated by the sheer number of new people at *mathNEWS* this first production night).
- Waterloo has been living up to its name, but no one seems to have overflowed the loo.
- M3 is now hosting classes... LARGE classes, so good seats may be hard to come by.
- The realm of academia has changed slightly, so some upper-years may be confused at the new material in frosh classes.
- The co-op process begins for some students... welcome to the HELL that is JobMine. For others, the hell is continuous.
- There's apparently a provincial election next month. PREPARE TO VOTE.
- Ninjas are everywhere, but if you notice them, they're doing their job wrong.
- New term = new opportunities = new choices = new mistakes to make = new things to rage over!

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My Trip to China

Having been born and raised in China, I was frequently told that a falling leaf must return to the root. For the past two terms, I was swept to where my root used to be. What I found is that my perception of my birthplace has been solidified into what it was 12 years ago, and that progress has almost completely erased it.

I lived in Beijing, the capital city. The liveliness and grandeur I remembered from my childhood has been magnified nearly a hundredfold during my visit. The city is indeed what the tourist brochures portray it to be. Simply imagine a single city having to accommodate a population comparable to that of the whole of Canada. In short: everything is much bigger.

I was somewhat saddened that I did not know anybody anymore. The relatives around my age I grew up with were all working, and friends from elementary school (I came to Canada in grade 4) were just impossible to track down. I wish now that I had gone with a friend from here or participated in an exchange program instead of taking a trip by myself.

Having spent nearly 7 months in Beijing allowed me to experience life in that city pretty thoroughly. One set of traditional Chinese concerns for everyday life includes clothing, food, shelter, and transportation, and all these elements are vastly different than in Canada (although I can say with much certainty that I prefer the way of life here). Today, there are indeed many things that China wants to show the world, but there are still more things that the country may want to sweep under the rug.

In the end, it felt bittersweet to see the place I only remember from my innocent childhood through my cynical eyes now. I will be describing my stay in greater detail in future issues. I hope you will find them enjoyable, and failing that, enlightening.

Lich

Ubuntu 11.04.01

The Latest Linux

So the latest Ubuntu release will be hitting the shelves (or Ubuntu.com), and they sent *mathNEWS* a prerelease to play around with and give a glowing review to (they also paid us ten bucks). *mathNEWS* needed someone to write it, and they thought it would be a good idea to give it to me, despite the fact that I have next to no experience with Linux at all, and even less with reviewing new OSes. Good job, editors. As such, I'm writing this article from inside a scary new operating system.

Without further ado, here's a brief list of all the cool features in Ubuntu 11.04.01: Naughty Narwhal

- It now ships with GIMP. Note: this is not to be confused with GIMP, the image editor. GIMP stands for General Illicit Masochistic Play. I think the name tells you more than I ever could. It was very pleasant, I must admit, and did its job perfectly.
- The new, intuitive system uses WHIP, a wonderful system that uses motion controls to switch workspaces quickly and efficiently. It took some getting used to, but the "control-shift-arrow" just never clicked with me, and I prefer this.
- They've replaced *Libre Office* with *Esclava Dungeon*, which is perfectly fine, if a little dank, dark, and drafty for my tastes.

- The security system is top notch: the WristCuff firewall doesn't let anything in, or out, unless you give it the master's/mistress's key.
- Oh, speaking of master and mistress, the new release has replaced "sudo" with "master" or "mistress" (you can change this in the settings), and always refers to "keys" and "safewords" instead of "passwords." Daemons are now referred to as slaves or submissives, and force-quit doesn't work without your safeword, but the safeword alone is sufficient to force-quit. That kind of commitment is always nice to see in a new release.
- Ubuntu Software Centre is now guaranteed to be 100% STD free.

So there you have it, a quick look into Naughty Narwhal, and the new features it has. I think it's a great introduction to Linux for new users, so first years (**especially you in CS, who should at least put a partition of it on your computer** [it may have taken me a year, but I at least have one, dammit]), think about trying it out. If you've been running Linux for a while, I doubt switching will really do you any good, the release is stable, but since when have you guys ever cared about that? Stable means you don't get to have YOUR Naughty fun.

Seriously, Linux is cold and scary,
theDreamer

First Year Funnies

A Running Diary of My Mistakes, Thoughts, and Rage

The first week of a university school year is a new beginning. It's a time to meet new people, enjoy new experiences, and celebrate your freedom. Unless you are a first-year. Then it involves getting lost in MC, eating a lot of Campus Pizza, and playing far too many games of Ninja. Mostly, it involves pondering the phenomenon that is university life. Here are some of my thoughts after a week.

- When my parents ask me if I know my way around campus, I say that I do. What I meant is that I know how to get to the three rooms that have my classes, the cafeteria, and my room. That's about it.
- It took me a week before I realized I had to do some laundry. Unfortunately, I don't know how. It's not like I was asking, "I wonder how much fabric softener to use". I was the dude asking, "What the hell is fabric softener?"
- Textbooks are the biggest scam ever. There's no way that I need to pay \$50 more for an edition where the only change the author made is who he included in the acknowledgements. Sadly, I buy them anyways.

- Who are these kids that camp out for half an hour before a class to get a seat in the front? They make entering and exiting classes an Olympic sport. Knowing math students, it's the closest they come to exercise.
- I miss the days when I didn't have to get my keys to take a dump.
- If professors are going to bring in iPads as a teaching supplement, they should learn how to use them.
- By now, everyone has met that one guy. The guy who manages to sit in the front in every class, do every assignment a week ahead, and understand everything the second he gets taught. I even talked to him once. He was a nice guy. I fucking hate him.
- I've learned to hide my UWaterloo lanyard whenever I go anywhere near Laurier. The one time I didn't, I got heckled by their students for invading their 'turf'. Luckily, I had a shiny coin to distract them with.

The Right Reasons

Underworld Rantings

The world is complicated...

After only a week of class, it's gotten to be about the time that frosh start to really realize that school is going to get really tough, really fast. I mean, think about this: What if we had a really big steak, completely covered in bacon?... Wait a minute, why can't we just think about BACON? Mmm... Bacon.

That simple deviation from a standard thought process while in class can cost you points on a final, especially since now the professor knows that you drool in their class, and that you're obviously not paying attention to the current topic, making it that much harder on a final.

Any, and I stress **any**, distraction will hurt you in the long run. If you want to survive the transition from high school to first year, you have to stop thinking about the old mindset of "coast now, work later!", because the work that you do now all culminates to that ever-so-awesome 50% final exam.

I really wish I could tell you that final exams are a walk in the park. If that were true, though, then why would the bell curve exist? Yes, unfortunately, the bell curve exists, and unless you're a genius mathematician who can do insanely large calculations in their head without ever needing to write anything down, you're probably not going to be anywhere close to the upper end of that curve.

So listen to your professors when they tell you to start studying early. Doing your assignments is actually a lot more important than you want to believe, especially when they're worth so little. The only reason why I passed some of my math classes was because of the pure and simple fact that I could scrape by with part marks on a final using theory from a past assignment that I panicked enough to conjure into my brain.

Contrary to popular belief, cramming doesn't work for everyone, and for the most part, doesn't truly work for anyone. The reason for that is simply that there's too much information to store into your short term memory. As a proper analogy for you computer nerds out there (myself included), here goes: Think about the legacy Windows systems from the 90s that had 64KB of memory, with 50MB of hard disk space. Now think about trying to put Windows 7 into that kind of system. Not going to work, eh? I bet some of you (I know I did) cringed at the thought of an operating system that large trying to be stuffed into a computer that old.

Doesn't work quite so well, right? It's the same way with studying! The faster you throw something like a lecture note or an assignment into your hard drive, the easier it will be to retrieve when you require it for that big final. With practice, your internal hard drive will expand, and the memory associated with

that hard drive will be able to index all of the possible entries that you've put in there.

Another thing to think about. Never be afraid to ask for help. I was once in your shoes, and let me tell you, fighting university stress alone isn't something that's all that fun, even if you think you can handle the entire world against you. I was once that confident, and I was once that arrogant to believe that I could truly fight anything in my path... and then I got hit by a wave of panic attacks.

Internal stressors are never something you want to bottle up and try to stuff away for a couple of terms. I'm going into my third year now, and it's only now that I realize how unhealthy my first year behaviour was. It was because I didn't ask for help that I was put into that situation to begin with. So ask early! There's never a bad time to ask for help.

For those of you that like to tl;dr *mathNEWS* articles (I do it sometimes, too), I'll summarize. If you read this far, though, congratulations! You've just read what three years of experience got me. Not very much, right?

- Don't let distractions get the better of you. Stay focused, and on task. Do whatever it takes.
- Start your assignments, projects, and studying early! For your own sake!
- Sleep well and eat well. This is especially important considering your Math workload (which I guarantee won't be light starting second year).
- Never celebrate until you're free and clear. Celebrate too early, and you're distracted. Celebrate too late, and well... you're already out of time! - Back to school!
- Cramming only causes headaches and sometimes can result in complete and utter failure. Not to mention blanking, panicking, hyperventilating, screaming, chicken-suit-shenanigans, and other necessarily irrational activity.
- Don't bottle yourself up. Talk when you feel stressed, and relieve that stress immediately. "Soon" and "when I finish this assignment" are not acceptable responses. If stressors are not eliminated immediately, they fester like infected wounds. Nobody likes festering wounds.

RampagingMadBrohan

Prof suffers heart attack in class

In a tragic conclusion to an otherwise dull STAT 231 class, Professor Scott Alvarez was carried away in a stretcher by local medical authorities at 9:47 this morning. The paramedics were baffled at the scene when they arrived, since Prof Alvarez had no prior medical history of heart attacks, and was actually quite fit for someone of his age and profession.

Shelby Franks, a third-year Teaching Option student, was notably distressed at the scene, and was treated for shock on-site. "All I wanted was that he clarified the definition of a mean. He had asked if anyone had any questions once he finished his

slide, and so I raised my hand. He collapsed right away."

"Of course he collapsed," says Brett Kaworski, a second-year PMATH student. "This part of the course is mind-numbingly boring. I learned this stuff in grade school. If I were teaching the class and someone asked a question about this stuff, I'd collapse out of shock, too."

Professor Alvarez is expected to make a full recovery and will be returning to teach the class again next week. Ms. Franks is seeking the help of a TA.

HorrorScopes

The only way to start off the new year

ACTSCI: Seeing the hordes of new frosh cramming the halls, you decide that instead of wasting time getting frustrated that you'll be late for class, you'll calculate the date when enough frosh have failed out that you can walk the halls freely again. Coincidentally, you are late for class.

Your unlucky number is: The 247th day of the year.

AHS: Classes have started and you decide to throw the first kegger of term. It's been all summer since your last kegger though, and your alcohol tolerance isn't quite as good as you remember it. You pass out after your first beer.

Your unlucky number is: 0.02% BAC

AMATH: You get mocked by the Mathies for being too similar to physics, while the Science students claim that you're in math and therefore have nothing to do with them. You consider becoming like the Softies and just be in two faculties.

Your unlucky number is: 1 more faculty to acceptance, you hope.

ARCH: Now that classes have started, you realize that all those tours of main campus were utterly useless. Unfortunately, that knowledge is still in your brain and refuses to make room for the calculus that you need to learn for your first assignment. You instead draw the plans for the SLC and pray that the TA has a sense of humor. He doesn't.

Your unlucky number is: 50%. He has some humor.

ARTS: You return to classes, all happy to be back on campus. As you walk through the Arts Quad, you notice that someone has defaced the boar. The pig is now sporting a black eye. You decide to add on a sign saying "You should have seen the loser of the fight!" and walk away whistling a jaunty tune. Other faculties see this as an invitation to get into a fight and you are immediately jumped as you round the corner.

Your lucky number is: 4 broken teeth.

C&O: You have enrolled in the advanced cryptography course this term. You get approached by banking agents to help rewrite their security system during your first week of class. You implement the only security system you remember: RSA, MATH 135-style.

Your unlucky number is: 2 minutes until that security is broken too.

CS: With a new year comes new girls on campus. On one date, you take her over to your place to show off your awesome gaming rig. She is not impressed by your hardware, calling you a noob when it comes off showing off your stuff.

Your unlucky number is: Five processors too little.

DOUBLE DEGREE: You realize that by always running between the Waterloo and Laurier Campuses to get to class, you have gotten really fit. You join the track team in the hopes that you can represent Waterloo at the next event. Unfortunately, your classmates all joined the Laurier track team instead.

Your unlucky number is: 52nd place at the next track meet.

ENG: You hear that AHS is having a kegger, and decide to crash the party. Being an engineer, you boast that you can down 40 beers. The others take you up on your bet.

Your unlucky number is: 19 beers to go.

ENV: You decide to check out the farmers' market and see if there is anything worth buying. At the sight of \$4 freshly baked pies, you lose all self-control and buy a dozen of them. You eat

them all before your next class.

Your unlucky number is: 50 minutes of painful stomach cramps.

MATH PHYS: You finally manage to finish your calculations for building a rocket ship that can launch out of the smoke stack of the GSC. As you try to break into the building to set your experiment in motion, you get apprehended by plant ops and accidentally fire off the rocket during the ensuing scuffle.

Your unlucky number is: 12 weeks spent cleaning up the mess in GSC with a toothbrush.

PMATH: You realize that the entire premise of our usage of numbers is flawed, and that base 10 is the reason why mathematical knowledge is being held back. You write a paper to prove that we should count everything in base pi. You run into trouble trying to do the page numbering.

Your unlucky number is: $[\pi][\pi]$ pages of nonsense.

SCI: First lab of term places you in the biology building, next to the room with the weird radiation experiments. Despite your TA telling you otherwise, you leave your plate full of bacteria out on the table overnight, thinking that it'll still be there in the morning. It is, but the table isn't.

Your unlucky number is: 56 IQ. Enough to know that it's still hungry.

SE: You spend way too much time hanging out in the Softie lab and lounge. In an epic game of League of Legends, you mercilessly wipe out two of the opposing team's heroes in a single attack. In retaliation, your opponent just reaches over the table and unplugs you from the university Internet. Fisticuffs ensue while everyone else continues to play.

Your lucky number is: 58 seconds to respawn.

STATS: You fall asleep in your first Stat 231 class of term, and wake up as everyone is leaving. You resolve to never sleep through an entire class again. You're out like a light on Thursday as well. Again on the next Tuesday.

Your unlucky number is: 0 information lost.

TEACHING OPTION: With no young minds to actually teach, you resign yourself to playing Euchre all term. Getting the Bauer is great, but you somehow still lose the entire hand. Maybe you should read up on the euchre rules.

Your unlucky number is: 10-0, for the other team. Better luck next time?

!ED

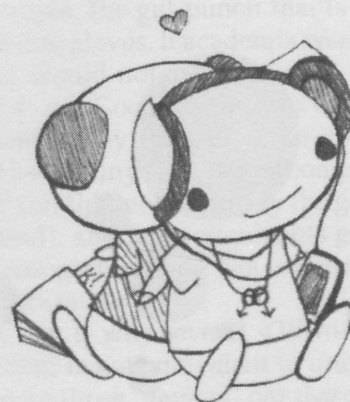


fig 8-2: for rainbow mathies

Rules for Driving in Italy

1. Go as fast as you want. Speed bumps don't exist.
2. If a speed limit does exist, it's not posted. Anywhere.
3. Right of way? Whoever goes fastest. Or whoever fits. Or whoever happens to go first.
4. If you're a pedestrian crossing the road, the only way to get cars to stop is to step out in front of them.
5. If you're a pedestrian, cars will probably stop for you. Cabs will probably not. So be careful.
6. If you're a pedestrian, completely disregard the previous rule and wander on and off the street at will.
7. Lanes are for wusses. Feel free to wander in and out of different lanes at your whim.
8. Red lights are optional if no one's coming. If there is someone coming, it's still optional, but you have to drive faster.
9. Thanks to roads ending, twisting, and arbitrarily turning into one-way streets opposite of the way you're going, navigation is impossible. So don't try.
10. Parking Rules:
 - i. The blue parking lines which are supposed to tell you where to park don't exist, so:
 - ii. Park wherever you want.
 - iii. Against the median is included. So is on the sidewalk.
 - iv. It's okay if you block someone in. Or block multiple people in.
 - v. Sooters and SmartCars can be parked perpendicular to the curb.
 - vi. Parking illegally is a phrase you can't translate into Italian because it doesn't exist in their language.
11. Feel free to set up stalls selling stuff on the side of a narrow road, partially blocking it.
12. If on a scooter, weave in and out of traffic. If you fit, do so in a car as well.
13. Make sure you buy a car with a good horn. You'll be using it a lot. Learn the Italian curse words. You'll be using them a lot.
14. Assume the other driver is out to kill you. They just might be.
15. A smashed window is no big deal. Nor is any other dent. After all, it's the price you pay for getting where you want to go quickly.
16. Whether or not your turning signals work is irrelevant, because they're not used anyway.
17. Street signs are either faded, hard to find, on the side facing away from you on a one-way street, or non-existent, so don't expect to know where you are.
18. Feel free to perform manoeuvres that would seem suicidal anywhere else.
19. Savour the feeling you get when a sign with your destination shows up, or when any sign shows up. You won't feel it often.
20. All the important signs will have English translations on them. Except the really important signs, which will be in Italian only.
21. Consistent spelling is overrated. Thira, Thera, Vira, Fira, and Fera are all the same name for the same place.
22. Finally, all of these are optional, because even their strange "rules" are really only suggestions.

Shannon Broekhoven

**MATHSOC WANTS
TO STAY IN TOUCH
WITH YOU!**



facebook.com/mathsoc
twitter.com/mathsoc

Why so scared?

Stop hiding behind that veil...

I have begun to notice the uprising of "creepers" using the website OMGUW to post their so-called "Missed Connections" with people they probably don't have much of a shot with in the first place. I mean, think about it. If you had a shot with a person you posted about, why would you bother posting a creepy MC that completely points out who they are to the rest of the world, instead of just approaching them like normal people and striking up a conversation?

What are you afraid of? Rejection? That's the way of the world! If it's not meant to happen, it won't happen! Everything happens for a reason - whether you choose to believe that or not is up to you, but everything that one ever needs will always come, if they are worthy, and if they are deserving.

The most annoying types of MCs are the ones where someone is completely singled out; people then begin to make very ridiculous assumptions about them based on the stereotypes surrounding the class, faculty, gender, etc. with which the individual is involved. Not only is that degrading in a lot of ways, I think it's quite humiliating. I mean, think about it. Would you like it if someone posted something very obvious about your character, then have people slander and harass you on a public forum?

I think these people need to get some balls and talk to the people they post about, especially if they see these people each class. Seriously, put up or shut up. I'm sick and tired of "failed relationships" or "what-ifs" about crap that doesn't even qualify as rational behaviour.

MadBrohan

How To Take Over MathSoc In Five Easy Steps

One thing that often may happen in your undergrad career is that you realize that you want superfluous power and the ability to command your peers. If so, a hostile takeover of MathSoc may be for you!

First: Make a bunch of friends/aquaintances. You will need minions to accomplish your task. Your goal should be to get a bunch of them in one program, such as CS or ActSci; one of the large ones. The reason for this will become apparent.

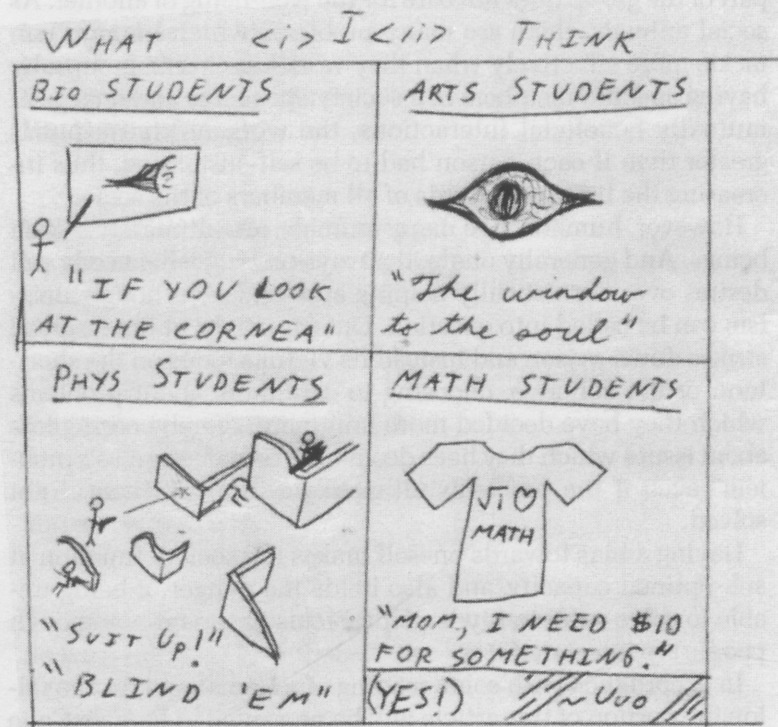
Second: Get most of your friends to sign each other's nomination forms for MathSoc Council representative, and run a bloody terrible attack-ad election in order to make sure that they all get seats.

Third: Continue to have them hold their seats, then make sure that they all become frosh leaders, particularly head pink ties or pink ties. From here, they are to get to know as many frosh as possible, for when first year reps are elected.

Fourth: Use the frosh leaders to influence the first year reps and gain a majority on council. From here you may rewrite by-laws at will.

Fifth: Get elected as president, make your significant other one of the other executives, and have sex on the couch you will buy for the office.

Ice Nine



Academia

Entering into academia, also known as "froshing oneself", can be a greater challenge than one expects. As a math frosh, you are expected to use the latest in outdated technologies without instruction, adopt one Greek letter per week into your handwriting, and not socialize unless commanded to by a superior. Not surprisingly, most frosh mathies are enthralled by these expectations of them, eager to prove themselves masters of all. (Seriously, at what age does that stop?) By the time those aforementioned math froshies are reading this article, they will likely have had several university epiphanies along the lines of: "Maple SUCKS!", "My Greek letters all look the same.", and "Who do I get notes from when I miss (skip) class?" These epiphanies come with a general feeling, normally referred to as "screwed". This article is not intended to reassure in any way, as that is reserved for a writer who cares.

The fact is simple, the gut-punch that is university is actually life in Sock-Em gloves. If academia were anything like life, then residences would not exist, tutorials would be someone saying "I'm busy; use Google.", lectures would be the 6 words, "Keep your hands away from that!" (if you're lucky), paperwork wouldn't be the tiny form that is complained about when filling in OSAP (on that note, you pay the government, not the other way around), and late assignments get people fired. For those in co-op, congratulations! Not to deter anyone, but co-op isn't quite real-life either.

IRL is tough; that is why several <Word>Craft games exist. Seriously, freedom is not equivalent to unlimited playtime. A word of caution to those "gamers" out there: moderation.

~ Uuo

Apathy: or How You Wouldn't Care

Apathy is a problem which persists in societies wherein a part of the group does not care for the well-being of another. As social animals, there are many problems which humans can tackle more effectively when they work together in groups; by having specific members of a society specialize and engage in mutually beneficial interactions, the work utility output is greater than if each person had to be self-sustaining, thus increasing the living standards of all members of the society.

However, humans, like many animals, are ultimately selfish beings. And generally one will always prioritize his needs and desires over altruistically helping another, even though altruism can be called into question. Unfortunately, at times, greed strikes down reason and instead its victims focus on the short-term or the concrete, choosing to care more about problems which they have decided more imminent, thereby caring less about issues which they have deemed as "somebody else's problem" even if the problems ultimately will affect them if not solved.

Having a bias towards oneself makes the society function at sub-optimal capacity, and also holds the danger of being unable to solve sufficiently large problems in time if not enough people are interested.

In accordance with some reading of a Canadian law, the following portion of this article will be presented in French. Cette partie de l'article est en français, dont je ne parle pas. Aucune loi canadienne régit à vrai dire les articles de ce genre.

Par exemple, si l'administration scolaire décidait; d'engager les oies déjà féroce sur le campus qui attaquent les étudiants délinquants pour améliorer leur image auprès du public, beaucoup de gens ne prendraient probablement pas de soins. Après tout, les oies attaquent les étudiants sur le campus avec

une régularité effrayante et une augmentation de la fréquence des attaques probablement n'éveillerait pas éveiller les soupçons dans la population étudiante, et donc l'agenda de l'administration est tranquillement remplie. Même si les élèves ont été avertis de ces singeries immondes, beaucoup supposent que seul un étudiant dérangé dans l'attirail sorcier aurait pu arriver à un tel stratagème burlesque et adoptent une attitude apathique dans une telle situation.

Ignorant sur la portion de cette situation où l'administration utilise le corps étudiant à son profit, donnant plus de pouvoir et d'influence aux oies sur le campus est une grave folie. Sans personne, même l'administration, à garder les oies sous étroite surveillance, leur puissance peut croître sans limites : envisager un avenir effroyable où les oies tous attaquent sans hésitation et sans discrimination; éviter un futur où une marche de MC à DP sans être picoré mort par les oies agressive est une anomalie est certainement le problème de tous, mais d'un début si humble, personne prendra soin. Qui saura quand les oies partiront, en tenant les étudiants avec un pied de fer palmés sur le dessus du pied de fer qui épingle les étudiants loin de la salle de fédération?

En faveur d'un nombre de mots égale dans les deux langues officielles du Canada, l'article va maintenant conclure en anglais.

As you can clearly see, failure to care about the situation allowed the geese to rise in station and become our oppressors on campus, but if the student body had more of a mind to be less apathetic about situations which may not have immediate relevance to them, the whole hypothetical situation wouldn't have ended in such a disastrous manner. Thus, it is imperative for society as a whole to conquer apathy to prevent disaster.

Zethar/Zéthar

UW Host Club

It's a thing!

Or it will be! With your help! If you don't know what a "Host Club" is, find and watch *Ouran High Host Club* (yes, it's an anime; suck it up). A Host Club is a chance for classy people to dress up in classy suits (or dresses), and drink tea and eat biscuits while having classy conversations with other classy members.

Classy.

So, like I said, I need your help. You see, when I said "we need a host club", they laughed at me. And I vowed they would rue the day. RUE IT I SAY! And to rue it, I need members. Or potential members. Or quantumly-potential members. All you have to do is send me an email at uwhostclub@gmail.com, telling me you'd be willing to join. The more of you there are, the better, so tell your friends!

Just watch *mathNEWS* next week for more news (WHAT?! News in *mathNEWS*?!? What hath God wrought?), and make this a thing! PROVE THEM WRONG!

Stay Classy
theDreamer

Westboro Baptist Church Protests Student Success Office

"GOD HATES FAGS" looks just as terrible in Gotham font

Recently, the Westboro Baptist Church was spotted on the University of Waterloo main campus, protesting the new Student Success Office. When asked why they were protesting, a young man holding a sign that said "GOD HATES WATERLOO" responded, "These bright colours they have all over the walls sicken and disgust us. The homosexual agenda is being pushed even farther than we expected in the Godless hell-hole that is Canada."

Every other organization on campus refused to acknowledge them, as their schtick is only to gain attention. A couple of hours later, right after a gig protecting the Governor-General and former UW President David Johnston, a couple of RCMP officers arrived at the scene and arrested the Phelps family members for hate speech. When asked if the US wished for them to be extradited, the United States ambassador simply laughed.

Ice Nine

Tips to Get Through Undergrad

To all the first years, you probably read a nice article titled "Ten Tips That'll Help You Through Your Undergrad". Well, one fact about frosh issues of *mathNEWS* is that we recycle a great deal of content from year to year. Those ten tips were the same ones I got during my first term. As you can see, that article is more like printed propaganda than people's genuine concern for your well-being. Here I will be making some additions and comments, not because I have any genuine concern for your well-being, but because I just like to be a snob.

Points 1 and 2: 'Always go to a prof's office hours and work together.' basically translates to: 'If you need help, you will need to seek it.' Also, if you "collaborate excessively" (i.e. cheat), you're a moron. Pretty good advice actually.

Point 3: Don't count on getting a co-op job through the system for your first job. This is kind of a catch-22 situation. If you have such a good network to bypass the system, why would finding a job be a concern for you at all? Couple of additions here:

Point 3.1: If you feel that you won't get a job, that feeling is probably false. Furthermore, it doesn't necessarily mean there are any deficiencies on your part; it might simply mean that the right job for you has yet to come along.

Point 3.2: Avoid dealing with CECS. They're likely to be overworked, understaffed, inefficient, and/or apathetic. If you do have to ask something of them, don't be surprised when they aren't very responsive or helpful.

Point 8: Join at least one club or activity. If the club is academic in nature, stick to math, because mathies are usually very academically proficient. On the other hand, stay away from the math department when joining a more recreational club, because that club will fall apart as soon as the workload ramps up later in the term. (Just observe *mathNEWS*)

Point 10: Close, Cheap, Clean, pick two. Ah, renting houses. The tip leaves out a very important point: the landlord. This aspect of the house search is much more complex, but gut feeling goes a long way here. If things don't turn out well, be sure to know your rights.

There is one final point I want to add: sometimes things are just beyond your control. Just do your best, don't stress about it, and always remember to enjoy yourself.

Lich

EdCom fried my Motherboard!

Waldo is now without a tablet for a week. Netbook FTW!

While uploading a video of EdCom marching through DC Quad the other day, my tablet's motherboard got fried. Although tech people may blame it on a design flaw with my computer overall, my guess is that my motherboard had the hots for EdCom and couldn't stop fast enough. What my computer and my motherboard were doing in the first place I'll never know, nor do I think I WANT to know, but I'll be sure to watch out for anything, and anyone, that may set off my netbook.

waldo@<3.LE-GASP.ca

Be in Math

To the tune of "Be a Man" from Mulan.

Let's get down to MC,
New students, in math.
Did you send me daughters?
Yes, but not enough!

You've got all the A's you'll ever get
So you can bet before we're through
Getting B's, is the best
You can do.

Tranquil as an artsie
But so stressed within.
Once you find your caffeine
You are sure to win.

The new courses you have will be tough,
So keep up, don't be a fool.
If behind, ask someone,
To help you.

I'm never gonna pass this test
Say goodbye to those who knew me
Boy, was I a fool in school for skipping class
This exam's got them scared to death
Hoping that my prof wont fail me
Now I really wish that I could integrate.

[Chorus]
Be in math,
We must be smarter than imprint writers
Be in math,
With all the force of a goose platoon
Be in math,
The sex appeal of your pink tie leaders
Stay up all night and sleep through class till noon!
[/Chorus]

Time is racing toward us
Till midterms arrive.
Use mathSoc's exambank,
And you might survive.

You have studied for most of your course
Go home, you're nearly through.
Get some sleep, get prepared,
For round two!

chorus x2

Adventures with a random word generator

"Just screw in the bolt and be done with it," Julia sighed.

"If it bothers you so much, run down the lane and fetch Ian," Shaun retorted.

"Please, he'd try to fix it with nail clippers."

Shaun, remembering the accident, continued working. Julia began composing a poem, making up the verses as she went along.

"Once there was a little noun, who went to the dentist.

He took one look at the certificate and went to a hardware store instead."

"That didn't rhyme, and made about as much sense as a ladder that goes sideways," he smirked.

"Hey, the words just kept coming out in their recipe, and I don't know where some of them came from," she sniffed. She paused, "Actually, that's really odd; I feel out of the loop."

"Don't tell me you made the error every lazy writer does."

Shaun was really rather tired of guiding inexperienced writers out of this chasm masquerading as a meadow. He always had to be their saviour from this pitfall. He was the toothbrush to their budding cavity. The network to their lift. Oh no, now he was doing it; caught up in the storm of metaphors.

"This error is a master trapper. It doesn't only trap oafs in talks of palaeontology and ostrich stew. It also causes disillusionment and horror among fairly experienced writers with talks of totalitarianism. It is the lamentation of all highly experienced writers."

Julia gaped at him, "I have no idea what you're saying, and this causes me a lot of anxiety."

At her urging gaze, he sighed, preparing to recite in a mechanical voice the formulation of the issue he had said so many times. "One of the major problems in writing is the mask of fancy words. The extension of small words into big words plagues many a writer, whether or not the larger word suits the context."

"Wait, so I just need to be careful and not use random words like 'Hufflepuff'?" Julia asked, hopeful.

"What the heck is a Hufflepuff?"

"They're particularly good finders!"

Shaun sighed again, thinking again this was why he wasn't spiritual. "You need to fix the problems bearing down on you."

"Can't I deal with symptoms and cross the bridge at the weakest link when the horses have already gotten out?" She whined.

He could only stare as though she were a particularly confusing diagram.

"Please, Shaun, this is an emergency!" Julia pleaded. "If I can't write, the commas will tear me apart for not using them!"

"...what?"

"The commas, will saw away, at your, speech, if you, don't use them," she whispered. "They make you, oh no, make you, I can't, what was I, make, you lose your, conversation thread."

This struck a chord with Shaun, as he had run into trouble with commas before. "All right, just use commas, don't speak of them, that'll give them the credit they want."

Julia stayed quiet, using the silence clause in her contract with the commas to her advantage.

"As I was saying, you must do some spring cleaning on your writing and leave a certain tool in the dust. The dreaded," he paused for effect, "*random word generator*."

"But Shaun..."

"Yes?"

"By that reasoning, I'm not the only lazy writer looking for salvation."

"What do you mean?"

"The author of this has been using it for this whole story."

"Julia, no! You're breaking ... reality ... fourth wall ... collapsing ..."

...

...

Don't use a random word generator. Or you'll break your story.

...

Floccinaucinihilipilification

Shannon Broekhoven

Week 2 of 16

Ramblin'

By my calculations, most of you should have had about two weeks of classes when this issue comes out. (Shirley J.: If you're reading this, Happy Birthday!) For some of you, this means starting to getting used to new routines (and maybe not getting lost so often in MC); for others, it means getting back into the routine of lectures and studying after co-op. For yet others, it means recovering after all-nighters from the all-nighters you pulled during the Velocity Venture Fund competition last weekend. In either case, welcome (back) to the University of Waterloo!

There was a half-decent article, "Things That Every Undergrad Should Know", in this year's frosh issue of the Iron Warrior. (Although, some of the most awesome girls I know are in Math. You know who you are.) If you missed it, the online archive can be found at <http://iwarrior.uwaterloo.ca/2011/09/05/things-that-every-undergrad-should-know/>

For those of you who are in CS, Software Engineering, CFM and related programs, you might want to take a stab at some of the topics in "What CS Majors Should Know", by Matt Might of the University of Utah: <http://matt.might.net/articles/what-cs-majors-should-know/>

If you happen to have some free time, contribute to *mathNEWS*! The *mathNEWS* Markup Language is documented at <http://www.student.math.uwaterloo.ca/~mathnews/mNmL/>. Come to one of our fortnightly production nights, or see the back of the cover (or a local on-stream editor) for details on how to contribute. If you're a coder, consider also helping me rewrite the *mathNEWS* Production System. You can fork the repository at <https://github.com/cbhl/mnps11> or send me an email at m9chang@uwaterloo.ca.

Finally, don't be afraid to make mistakes. Being afraid is the biggest mistake of all; it results in paralysis, and automatic failure. Which is way worse than failing after trying your hardest.

cbhl

profQUOTES

So Galois theory started with Galois examining how complex numbers play with each other, however when you do perverse things like pretending 5 and 0 are the same thing, things can blow up in your face.

McKinnon, PMATH 442

I have no emotion, just the numbers. My wife came to me, crying; I asked her, "What are the numbers?"

Metzgar, STAT 206

I like proof by pictures.

Metzgar, STAT 206

This marker is awesome; I'm going to go to my office later and smell it.

Metzgar, STAT 206

Excel: do some math, because I'm bad at it.

Metzgar, STAT 206

My second language is R, mainly because it is pirate-cal. Arrrrr.

Metzgar, STAT 206

I'm not gonna be doing 1 divided by 4 equals 7 ...or something like that.

Mansour, ECE 105

Peanut oil comes from peanuts. But you have to wonder, where does baby oil come from? Disturbing thought.

Orchard, CS 115

Now you can run "f" or "g". I just said "orgy".

Orchard, CS 115

That's physics. We don't understand physics in this class.

Kennings, ECE 140

The Pure Mathematicians might cringe, but the Applied Mathematicians just go ahead and do it.

West, AMATH 250

Anyone know the answer? Anyone? Anyone? ...Bueller?

West, AMATH 250

I'd put in an "i", but it might upset Apple fans.

West, AMATH 250

About the newly renovated RCH 101: With all of this technology I don't know whether the classroom will attack me or not.

West, AMATH 250

A little minus sign isn't that important, unless you're building a bridge or something.

West, AMATH 250

...and if I were teaching a more advanced course, I'd be a bit more studied up on it.

West, AMATH 250

It's like skydiving without a parachute, or white water rafting without a raft.

Buhr, CS 343

Ok, so you did really bad on the last question. Let's see if you can do equally bad on the second.

Buhr, CS 343

Any other questions that I won't answer?

Buhr, CS 343

I believe in C++.

Buhr, CS 343

I put this part in only to confuse students.

Buhr, CS 343

The last question in the assignment should be enough to bring a couple of tears to your eyes.

Buhr, CS 343

Man caught loitering in Arts Quad

Strange recording equipment seized

Campus police apprehended a suspicious-looking man in the Arts Quad today, after students reported seeing him and an unknown accomplice setting up a sophisticated set of electronic equipment aimed at the Dana Porter Library. Students were reporting that the duo had brought in the devices in heavy black padded bags, and were standing around suspiciously while one of the men was talking into one end of the device.

"It was terrifying," says Chantale Tremblay, a first-year History Major who had reported the incident. "I had never those men before in my life. Their machine seemed to have had some sort of hypnotic effect on passing students, who would pause and make odd gestures and movements when they were in front of the machine. It was scary."

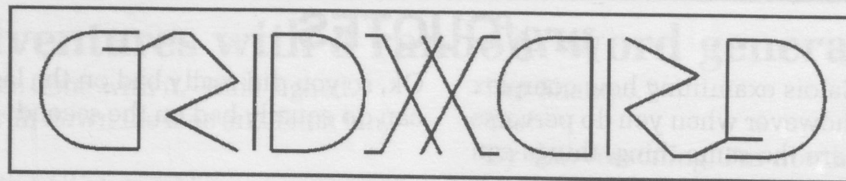
When the authorities arrived at the call they apprehended the machine operator, while the other man was able to escape. Police have disclosed that the captured suspect claims to be from a news service called *See-Tea-Vee*, but no records could be found regarding such an organization existing.

The other suspect still remains at large.

!ED



Photo of the suspects by the Tatham Centre



Grid Clues

Across

1. Pretend (5)
4. Consult (9)
9. Collection of weapons (7)
11. Joke (3)
12. Disease (3)
13. Adjust (5)
14. Betrayal (7)
16. Overcaffeinated (5)
18. Fee (3)
20. Long time (3)
21. Distorted shape (6)
24. Adjective used as noun (6)
26. Obstruction (5)
27. Apish (6)
30. Outdoor meal (6)
32. Lowest cardinality (3)
33. Lemon suffix (3)
35. More competent (5)
36. Shoes (7)
39. Stooped (5)
40. Information Systems and Technology (3)
41. Ordinary (7)
44. State of flipping (9)
45. Uneven (5)

Down

1. Parts (9)
2. Positions of influence (3)
3. Grandmothers (5)
4. Key (6)
5. Silently (6)
6. Began again (7)
7. Blaze (7)
8. Gash (5)
10. Confusion (3)
15. SLippery fish (3)
17. Like a bond? (5)
19. Flip (5)
22. Think (5)
23. Spirit (3)
24. Snake (3)
25. Needed (9)
28. Cocktail bomb (7)
29. Faucet cover (7)
31. Maiden name (3)
33. Basic (6)
34. Less than a dozen (6)
35. Story (5)
37. Talipot leaf (3)
38. At zero (2,3)
43. Flee (3)

gridCOMMENTS

The start of a term! O, discordia!

Hello and welcome to what may very well be the most confusing *gridCOMMENTS* ever. I am moment, the new setter. I am not perki and I am not \neg perki. I feel no pity for the pure mathematicians who are now frothing at the mouth; they should learn to deal with it.

Submit however much of a solution you can get in the **BLACK BOX**; if you have the best solution, you win a **FABULOUS PRIZE!** If you're the only submitter, then you **DEFINITELY** win that **FABULOUS PRIZE!** I have no idea what the **FABULOUS PRIZE** is! Drop your solution to either the quick clues or the cryptic clues (or both, if you want to double your chances!) to the **BLACK BOX** right outside the C&D before 6:30pm on Oct. 3rd.

Be sure to include your name and your answer to this issue's *gridQUESTION*, which is "Why are math frosh the best frosh ever?"

Cheerio,
moment

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				

Cryptic Clues

dx

1. Trees have time before anything else (5)
4. Consistently making one mistake without a room (9)
9. Unplanned riots and a church bird (7)
11. Stone tip-off (3)
12. 28's inverted prefix curve (3)
13. Leather-like material for the King's shoes (5)
14. A DJ appliance (7)
16. I'm in most dampness (5)
18. Look, it follows a bee (3)
20. Honest man or headless pig? (3)
21. Blue shade disguised in digoxin poison (6)
24. The state of having to ask in a state... (6)
26. Right, Norse Supreme made a thinker? (5)
27. Urge or prevent ice from hiding? (6)
30. An apt 10 remakes a saucer partner (6)
32. No messing around at all! (3)
33. Organizing device for a disorganized pad (3)
35. An ensign and an agitated Judge Advocate General?

Hardly a game... (5)

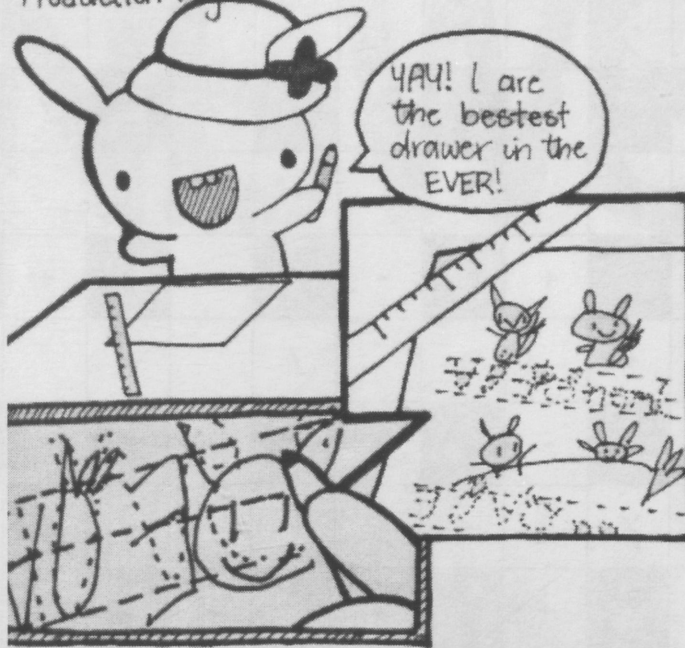
36. Sierra Leone and hesitant libel (7)
39. Uncultured folk searching the web? (5)
40. Oh my, I just heard of your sadness! (3)
41. The sickness in Billy's heart (3)
42. French island, of course! I heard I can almost make it! (7)
44. Late comedian, for example, a man (9)
45. Stay clear of a clearing! (5)

dy

1. Head of the pack used subversive cover to row (9)
2. Deteriorate uphill (3)
3. Distorted twits turn in place (5)
4. Guides in the last of the rushers (6)
5. Set back until I'm atop half of a pedestal (6)
6. Choose the confused mail, still the best (7)
7. On average, 1 of 99, elementarily, are bullies (7)
8. Cathy's broken boat (5)
10. Billiards shot reminder (3)
15. Help a passport, for instance (3)
17. Nothing, then an explosion, culminating in a President (5)

19. Finalized for sure; no-one is uncertain (5)
22. Freezing over with a sweet glaze...(5)
23. ...or, reportedly, a mineral (3)
24. The insect commonly found in long shorts? (3)
25. Current unit per second and...and...? (9)
28. A singly-connected line of thought (7)
29. 15th after 21? Poisonous!(7)
31. Bugs Bunny talks about fish? (3)
33. Hot in the weird, lumpy part of the kingdom (6)
34. Bin hidden amongst the hogwash, can't you see? (6)
35. Valued sheep in an empty jail (5)
37. Toilet water, repeated (3)
38. A new 2 and a main artery (5)
43. First market of most of a music player (3)

Production Night



Publication Day



Present Day

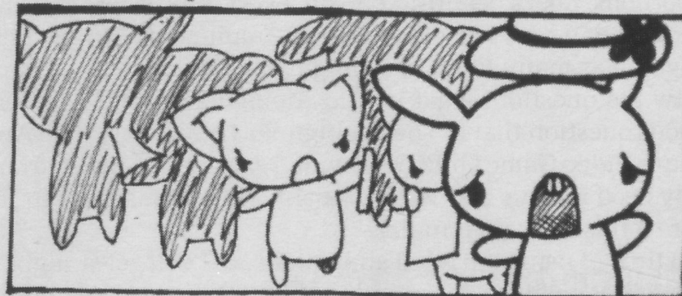


fig 8: E fury V mathies. My sincerest apologies for the mistakes in volume 116.

	-		+		X		+		/		52
X		X		-		+		/		-	
	+		+		+		+		X		162
-		+		-		-		+		X	
	+		+		/		+		+		66
-		-		+		+		-		+	
	X		+		-		+		+		186
+		+		+		-		X		+	
	-		+		-		-		+		-15
+		+		-		+		+		-	
	-		X		+		-		-		-224
125		764		9		67		-651		-734	

S T B N
 S W U J R N W
 Q L E X V
 L X R
 V W U K L P G
 B I C R U Y B I E
 Q J S T
 K M

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

- Try to fill in the missing numbers.
- Use the numbers 1 through 36 to complete the equations.
 - Each number is only used once.
 - Each row is a math equation.
 - Each column is a math equation.

Remember that multiplication and division are performed before addition and subtraction.

Ambiguous Video Game Quiz

Attention readers! It's time for a game. A game of ambiguous proportions. Like a beautiful person, everything is best left ambiguous. I will now try to fit the word "ambiguous" in the next paragraph as many times as ambiguously possible.

Now the question, what is The Ambiguous Quiz? The ambiguous question that is The Ambiguous Quiz is this, The Ambiguous Video Game Quiz. Why video games? Because we currently need a focus and we'll probably do more themes in the future if this ends up popular.

I'm tired of using the word ambiguous, so I will get straight to the point. We will ask very ambiguous questions based on the current ambiguous theme. What do you do? Submit answers to the BLACK BOX for each question. You will be given points based on the answer. Unique, funny, creative or answers we never thought of will get max points, while the most obvious

answers will not get many points. Hopefully, we can get you prizes for your awesome answers.

Now, answer these statements with a videogame that corresponds to it. Which video game is this?

1. Silent protagonist saves the world.
2. Racing to an objective as fast as possible.
3. Beating people up to progress.

Submit answers to the **BLACK BOX** located outside the MC comfy on the third floor. Good luck, have fun, and funniest best answers will be posted in the next issue.

Ambiguous Count: 12, well I fucked up.