## Imach NEWS

MATHIE FANTASY



Computer Science, masters of their domain

Volume 115, Issue 5 Friday, March 18, 2011





#### **lookAHEAD**

| Issue 5 has content                    |
|--|
| Issue 6 will be made of fish           |
|  |
| Games night                            |
| Movies/Karaoke night                   |
|  |
| So you think you can dance Waterloo in |
| Feds Hall                              |
| Free Carlos Andrés Gómez Workshop in   |
| SLC                                    |
| Feds March General Meeting in SLC      |
|  |
| Joe Marks - Disney Research            |
| Theater of the Arts, ML, 4:15-5:15 pm  |
| Research at the Walt Disney Company    |
| Jon Kleinberg - Cornell University     |
| Humanities Theatre, HH, 3:30 - 4:30 pm |
| Computational Perspectives on Social   |
| Phenomena in On-Line Networks          |
|  |

#### mastHEAD

Now with less  $\pi$ 

So once again another  $\pi$  day has come and gone, and with it the travelling faculty spirit circus that accompanied it, not to mention the journalists and reporters looking for a culture/filler story. We have only four more years left until the fabled  $\pi$  day of 2015, the "only  $\pi$  day of our lives" according to some sources. [Citation needed - Facebook is not an acceptable source] And yet, there are those among us who seek to tear down our beloved holiday, the crazies, the wackos. I am of course referring to the dreadful followers of  $\tau$ .

These petulant, pedantic, picky, perverse persons wish to switch out  $\pi$  as the major constant to  $\tau$ , because it is "more natural" or "more elegant". Look, I know you want to revolutionize the mathematics education our children receive, but this is not the fight you should be picking. It's just stupid, a waste of time, and makes mathematicians looks more like children holding silly grudges than they already do. But even now there are in our wake, those who like "other numbers" besides the quite obviously holy  $\pi$  of ancient lore. Even within the answers from our writers to the following question, I can see we have traitors in our midst. They will be purged. This issue's mastHEAD question is: What other numbers do you like?

the country convict ("the cash value of a cow"), Soviet Canadian ("My KDR"), the Dreamer ("magic"), waldo@<3 . LE-GASP . ca ("Avogadro's number and Google"), Algoweird ("{}, {{{}}, {}}, but not {{}}. He's a loser."), RedMetal ("Can't choose between 0.999... and 1"), ScruffyED ("3 tt 3"), FuzzyED ("0/0"), ¬perki ("The ordinal  $\alpha$  satisfying  $\aleph_{\alpha} = \alpha$ ."), Thor ("TREE(A(g<sub>64</sub>!!))"), TRK ("The Golden Shower"), the SMURF ("e<sup>iπ</sup> +1"), MustardMap ("After reading the comments above, honestly... WTF people."), (define this (not cool)) (" $\tau$  ( $\tau$ =2\* $\pi$ ), because it's strictly better"), Zethar (" $\lambda$ .x fffx"), image ("Seventeen (no pun intended)"), IceNine ("Your mother's."),  $\pi$ Frosh ("not  $\pi$ ")

GroovyED ("68. This is not a typo.")

#### **VPAS Sez**

Hello once again!

Hope you have all had a fantastic last couple of weeks!! I'm a tiny bit sleep-deprived at the moment, so I apologize if my article is hard to follow — bear with me. We had some exciting stuff go down over the last couple of weeks, and a couple of events are coming up!

As part of the  $\pi$ -Day celebrations on Monday, we were able to raise over \$350 towards the Colour Me Educated Campaign. If you don't know what that is, all the faculties at UW are competing until the end of the term to raise the most money for Pathways to Education, a KW charity. There are paint buckets in the C&D and MathSoc, and you are always welcome to donate loose change... or large bills! As part of "Pie Die", your four Math Execs and the Dean, Ian Goulden, got  $\pi$ -ed in the face by Pinky and students! Not that it was a competition or anything... but my bin had more money than any of the other execs... YEAH! Check out the sweet election posters in the halls for a wicked picture.

A few of the other things that went on were a  $\pi$  Memorizing Competition,  $\pi$ -zza Sales, a screening of "A Beautiful Mind", and as always free " $\pi$ " and  $\pi$ -neapple Juice at 1:59pm. We got lots of media coverage, and everyone seemed to have had lots of fun!! Just want to say thank you to all the fantastic volunteers who helped out, and everyone who came to cheer and eat  $\pi$ !

Something to look out for in the next couple of weeks is Pints with Profs, which will be at the Bomber on Tuesday March 29<sup>th</sup> 5-8pm. There will be lots of appetizers and profs. The bomber will even be serving pink beer! If you'd like to get your prof invited, you can email vpas@mathsoc.uwaterloo.ca, or pick up an invitation from the black bin outside MathSoc (MC 3038)... GET EXCITED!

Next! 24 Hour Movie and Games Night is happening April 2-12pm to April 3 — 12pm. There will be 24 hours of awesome movies, and fantastic games! As always, you are welcome to come out to Tuesday night Games night, and Thursday Night Movie Night. Next week is Disney-themed movie week! And after that is a Karaoke night! Enjoy the last of your midterms, if you have more like me!!! And feel free to email me if you have anything to say!!

Anna Merkoulovitch

vpas@mathsoc.uwaterloo.ca

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The editor(s): Will Hughes, Harrison Gross, Murphy Berzish. Goofy, Donald, Mickey.

#### WatSFiC Sez

Hey there Mathies. Once again, we're here to talk at you about our events.

Our D&D 3.5 Tournament last weekend was a rousing success, drawing students from the area and even from Toronto and Fort Erie. We'll be having another one, possibly in  $4^{\text{th}}$  edition next year around this time, so stay tuned.

We're going to be watching movies of some sort in PHYS 150 at 7 PM on March 30<sup>th</sup>. I can't promise they will be good movies, but come and check them out anyway! Besides this, we've got a board games day coming up on March 26<sup>th</sup> at noon in the Comfy Lounge (MC 3001). Finally, we're finishing up our book club of the term on March 27<sup>th</sup> at 7 PM, location TBA. We'll be discussing the whole of *Anathem* by Neal Stephenson, and the location will be sent out by email, so if you want to be added to the mailing list, either visit http:www.watsfic.uwaterloo.ca or email us at watsfic@gmail.com.

Harrison Gross WatSFiC Prez W2011

#### **MathSoc Council Nominations**

Open Again...

Hey mathies!

MathSoc Council is once again looking for nominations. This is bad, because it means that there are vacant seats on MathSoc Council. This is bad, because it means that students are going unrepresented.

Imagine if you hadn't been allowed  $\pi$  on  $\pi$  Day because you didn't have a representative, and the rest of Council had voted to disallow your program from having  $\pi$ .

Okay, that actually wouldn't happen (I hope), but in any case, you shouldn't run the risk... you never know...

Come and sit on MathSoc Council or, better yet, volunteer a friend today! Nomination forms are available outside of the MathSoc office MC3038, and nominations are open until Monday, March 28<sup>th</sup>. You have plenty of time!

Sean Hunt MathSoc Elections Committee

#### **VPA SEZ**

Hello Mathies! First off, I hope you had fun pi-ing your execs and the dean, Ian Goulden. We have uploaded 45 exams to our exam bank covering Math, ActSci, Stat, and PMath. Check them out! I would like to extend my special thanks to Young Wu who contributed 33 exams. We have designed eight creative business cards for different programs and mathematics in general and will be uploading the templates to our website as well as Facebook. We will also help you print them from Fedex for \$10/50 business cards (Coloured) or \$5/50 business cards (B/W). Email mathsoc.bizcards@gmail.comfor details. We will be launching a resources page to our website by March 25th (Friday), which will include Resume Templates/Examples/Tips for different programs, Interview Tips, Scholarship Information, and Business Cards Templates. If you think of any other information that would be valuable to students, let me know!

Hellen Hou vpas@mathsoc.uwaterloo.ca

#### **Prez Sez**

It's almost over!

Hello Fellow Mathies,

I'm going to make this quick because it's late. I attended a Faculty Council meeting where a presentation on first year retention was given. 2.7% of students lost in 1A for F10. In comparison to F09 and F08, it was 4.1% and 3.5% respectively. There are talks in the works of getting final exams to be part of class enrollment. This will hopefully help resolve a lot of the exam relief issues students have. The new OLT requirements have been spoken against by many returning leaders and these concerns have been brought to the attention of FedS council at this past meeting and an item of discussion is to be added to the agenda of the next FedS council meeting. CIF is open and applications are due Monday March 21st 2011 at 4:30pm. If you have an idea for how to spend that money, submit it to us. There is a General Meeting on Thursday, March 31st, 2011, at 5:30pm in the Comfy Lounge (MC3001). All Math Undergraduate students have a vote. If you can't make the meeting but want to have your vote counted, you can fill out a proxy form to have someone else vote for you. Proxy forms are due 24 hours before the meeting. There are two things on the agenda for that meeting: A report from the Special Committee on Spending and quite a few by-law changes that will change how MathSoc will run quite significantly. So come on out if you want to be part of these changes. That's all I have for you now. Have a good one.

Andre Gomes Magalhaes prez@mathsoc.uwaterloo.ca

#### I was vandalized

Why I didn't do work this weekend

This past weekend I had planned to start/finish some assignments. However, on Friday evening I was abducted by some mysterious being, preventing me from doing so. He first made contact with me around 8 p.m. via text message and convinced me to leave my group of friends and meet with him. When we came into contact I attempted to pull my Swiss Army knife on him but somehow I succumbed to his charm and looks. He then led me to the most dreaded place of all... Kitchener.

As the night went on, my judgement got cloudier, and in the morning I found myself lying next to him on the cold floor. When I got up the next morning, I found myself vandalized with markers, having "<3 dicks" written on my arm. I tried to escape from his clutches later that evening while we were with a large group of people, though I failed miserably. He dragged me to another residence and made me play a game known as Cards Against Humanity (the adult version of Apples to Apples). I must have had something put in my drink while I was playing the game since I found myself too tired to leave and fell asleep on an extremely comfortable futon.

I now found myself waking up Sunday morning with no work done as I had planned. At this point I gave up trying to run from his clutches and tried to enjoy the rest of the day. By 7 p.m. he left, leaving me tired and feeling empty inside. This past weekend I realized my willpower does not work around this creature. I should never see him again though I know I will encounter him again in two weeks' time. You will not win next time, boyfriend living in Toronto.

#### Rainbow Mathies #6

Dos and Don'ts on Coming Out

Hello again, mathies of all walks of life. I just wanted to take a moment to apologize for the missed article last issue. I was not nearly as productive during reading week as I should have been, and as a result I came into the week with way too much to do. Some things needed to be cut, and, sadly, that included my article for the week. No worries, though! This week we are back in action. I have a lot to say, and GroovyED was so kind as to remind me that my last article was a bit too long, so let's get right on it, shall we?

The previous issues of this series on coming out have all dealt with what I like to think of as the pre-coming-out process. They discussed the thoughts, considerations, preparation, and actions involved with coming to a decision on whether or not to come out, and when/where/how/to whom. This article is going to talk about what happens after this pre-process is completed and someone actually decides they want to come out in some fashion. I want to start by saying that not everyone is necessarily going to come to this decision. Coming out is a personal decision, and no outcome is necessarily better or worse. With that said, if you are in the privileged position of not having to choose to come out, or if you decide that coming out will not be appropriate for you, this article is not going to serve you any practical purpose. I do hope it's still informative, though.

There may be some readers who have or will not be in either of those positions, and you may be asking "Well, all that talk of selfishness and domain is fine and dandy, but how exactly do I come out?" If that's the case, this article is (the best I can do) for you! Understand that I don't know the intimate details of your particular situation. Because of that, I can't give a personalized answer to that question, and since coming out is such a personal process, I actually can't even answer the question generally. What I can do, though, is share some advice that I personally found really helpful in my own situation, in the hope that it helps. Without further ado, let me introduce (define this (not cool))'s Dos and Don'ts of Coming Out!

- **Do** it your own way. This relates back to Rainbow Mathies #4 and my claims that coming out is a selfish process. See, there is no one who is going to go through this experience for you except you. (Well, unless someone outs you. In which case you still kinda have to go through it anyway once you next meet the person you were outed to, except it's worse because you no longer have control of the situation.) Because of this, you are responsible to no one but yourself for the whole process. In other words, it's up to you to do whatever you can to make sure the process is as easy on you and goes as well as you can possibly control. This may run contrary to what the people you're coming out to may expect of you (i.e.: to do it in person, to use language they approve of, to wait when they're ready or willing to hear it, etc.). It's admirable of you to be thinking about these people's concerns; if coming out under these considerations would cause you too much hardship, I say that you should prioritize yourself.
- **Don't** rush things. If you're having a hard time coming up with what to say or how to say it, don't worry about taking a bit of time to mentally work it out, if even to gather some

more courage. With that said, if it would be better for you to wing it or if you already have it all figured out and are just delaying out of fear or worry, it can become easy to stay in this paralyzed state for way longer than is healthy. Things like coming out can get harder with time if you're not actively working on it, not easier. If you take anything out of this article, I ask that you remember this: Try to always be working to some kind of progress. Even if that just means looking for a touch more courage.

- **Do** have a support system (both emotionally and economically) in place. Maybe you've found the courage to come out to (a) trusted friend(s), and they can act as this support. If not, having or finding someone who will help you, no questions asked, may be easier. If not, research local centers, shelters, and queer services that may be able to provide resources. As troubling as it is, 40% of homeless youth are queer-identified, and you don't want to end up a statistic. It will also help just having someone to talk to if things go wrong, but not necessarily tragic.
- Don't expect immediate, positive reactions. Consider how long it took you to become comfortable with your sexuality. For many people, it can take years. Being eased into the realisation over time is somewhat of a blessing a blessing that the people you're coming out to may not get. Sure, some people may react well, either because they have positive opinions on divergent sexualities and gender identities, and/or because they have suspected it for some time and have been able to process it. Otherwise, it's reasonable to give the people you've come out to time to think on what you've told them, especially if they've already spent a long time getting to know the "straight/cis you" they were decieved into believing existed.
- Do remember the experience. This is a huge, relatively unique stepping stone in your life. You will forever remember the persons reactions, and how you felt before/after telling them. You may even remember the exact words. It will be a huge source of empowerment in the future. People will be forever curious about your unique story, and will often ask for it. Some people feel compelled to try to shove the significance of the event under the rug, but I disagree with that. I say, take pride in the experience, even if negative. Tell stories about it. Celebrate the date you came out (or the day you came out to a very important person, or perhaps an arbitrary day) like an anniversary or birthday. With that said, don't embellish the details (ok, maybe embellish the details a little bit). After all, what's not important is the event itself, but how it's allowing you to grow as a person.
- Don't forget what's important. I think this goes two ways.
  Firstly, remeber your own unique reasons for coming out,
  and make sure what you're doing satisfies those. For example, if you decide you want to come out so you can try to
  feel comfortable around people you care about, then telling
  your parents in a heated exchange out of anger or as a form

#### Rainbow Mathies #6 (cont)

of revenge may not be the best time. It certainly won't make the situation more comfortable. With courage comes boldness, but don't let that blind you. Secondly, when going through a coming out process, you may spend a lot of time thinking about your sexuality or gender identity. It may start becoming a large, perhaps overwhelming, part of your life. This can continue after the coming-out phase, when you're not quite sure what it "means" to become an out queer person and you're not used to life where these issues are not your focus. Just remember that you are a person, dynamic, complex, and three-dimensional. There is more to who you are than your sexuality or gender identity, despite how allencompasing they may appear now.

That's all I have for now. There is, once again, no coming-out story this week. A number have been sent to me over reading week, but I just didn't have space for it this week. If you feel comfortable sharing your coming-out story for this series, have any comments for this column, or would like to suggest future topics, please email them to me at dtaleman@uwaterloo.ca. I will respect your confidentiality, and no names will be pub-

lished. Perhaps I'll continue this tradition into the summer if I get enough of them.

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 8:30-4:30WF, 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.

I just realised that the topic I originally planned to be the last article of this series (what to expect when coming out) has been essentially covered in this article and some former ones... so join me next issue when I talk about something related to coming out. Which I will decide later.

Take care, (define this (not cool))

#### **MEF Director Sez**

We're having elections!

For the first time in my memory (and possibly beyond that), the Mathematics Endowment Fund will be holding elections for its Fall 2011 Director.

The Director will be responsible for administering the \$4.3 million fund during the fall term. Four nominations were received:

- Ritika Bhargava (who has since withdrawn)
- Ian Charlesworth
- Tony Tang (who has since withdrawn)
- Stephen Yi

The candidates were each invited to make a short statement for this issue on why they believe they should be elected. Please read them as you prepare to make your choice.

Voting will take place on Monday/Tuesday, March 28/29th. We will be using a preference-based system of voting known as BC-STV, so make sure you know who your top picks are. More information is on the website at http://www.mef.uwaterloo.ca/election.

Joseph Collins MEF Director W'11

mefcom@student.math.uwaterloo.ca

#### Ian Charlesworth

Hello math undergrads.

I am Ian Charlesworth, and I would like to be your MEF director.

Let me take a moment to explain my qualifications.

I have been involved with MEF as a funding councillor since my 1A term, and have served on MEF's Board of Directors since Spring 2009, so I have a very good understanding of how MEF works and how to make sure it runs smoothly.

If things run smoothly, it means more people can get money faster to do things that benefit you, the math undergraduate student.

Further, I'm dedicated to MEF; I've already began seeking donations from corporations to MEF's principle — which will increase the amount of money we can spend every term — and will continue to do so even if not elected, although it makes it easier if I can speak on behalf of MEF.

Please vote, even if not for me.

#### Stephen Yi

Hello everyone, I am a 4B Mathematics/Chartered Accountancy student who has been involved with the MEF as an undergraduate representative of the Board of Directors in the past two years. Through my co-op terms at a public accounting firm, I have several years of specialized fieldwork experience in the assurance and governance services for not-for-profit entities, including organizations within, or associated with, public universities. From these experiences, I promise to bring increased transparency, which I believe is the key to raising the awareness and participation of the student body.

In the core of my proposal lies the concept of internal controls and disclosure. This includes the segregation of duties amongst those charged with governance, particularly in fund disbursements, oversight and authorization. I also plan to provide a detailed Financial Statement disclosure to students on a termly basis. Lastly, I propose to hold the Annual General Meeting open to the public.

#### mathNEWS Interviews the Dean

[Earlier this term, mathNEWS had an interview with the new (as of last summer) Dean of Mathematics, Ian Goulden. We asked a fair number of questions about policy and some humourous questions as well. Here is a transcript of our interview. Asterisks are references to concepts listed at the end of the article. — Ed.] mathNEWS: We'll get started with something relatively simple. We know you have heard this before many times. When is M3 going to be done, and what are students going to get out of it? Goulden: M3... We will be using M3 in full in the fall term; it is not clear who will move in when. It seems like it really is on schedule, I've been through it in the last week and they really

not clear who will move in when. It seems like it really is on schedule, I've been through it in the last week and they really have got tiles up on washroom walls, and various finishings. So we really will be using it in the fall term but probably not much use during July or August.

**mathNEWS**: And what will the distribution of office space, class space, and student space look like? Or are we going to have another area like the 5<sup>th</sup> and 6<sup>th</sup> floors of the MC, another confusing mesh of hallways that we have to wade through to find our professors?

Goulden: We try to make it as confusing as possible since we really don't want you to find your professors. There is a huge classroom on the ground floor, there are office spaces for professors, administrators for the ActSci and Stats departments on the third and fourth floor primarily. Lots of space for new Grad students and study space for of various descriptions on the ground floor. Some of it may be called "quiet space", though I'm not quite sure what the opposite of that is. But the floor plans should be available online, though I can't at this moment remember all of the details. We have some club space on the upper floors. So it will be a multi-use building. At the same time the Knowledge Infrastructure Program (KIP) provides us with money and is funded by the federal government and the federal government is much more interested, or rather explicitly interested in research and this is more of their mandate as opposed to our mandate. So we have to be careful when we fund classrooms in there that we use a different pile of money that we keep for making new classrooms rather than use the government's money. But also, this building won't have anyone else, like iST\* in it. It is purely faculty space. At the same time we are still trying to change what we will do with this building, particularly I am fundraising, but we haven't finalized how all the space in the new building will be used.

mathNEWS: Now, the Daily Bulletin recently reported that the enrollment application rose in the university by 6.2% and more specifically a raise of 7% in applications to the math faculty. How many students are we expecting to take in during the coming year, and more importantly, do we have classroom space for these students?

Goulden: So we are aiming for September 2011 to take in the same number as September 2010. We are aiming for no growth. And I'm not trying to hide anything from you when I use those careful words but try to understand that aiming at this target is an art, since we don't serially process admissions. We don't say, "Hey you 1100 students are the most desirable" and then wait until you respond to us before sending out to our other choices. We send out around 1700 or some large number of offers and we have some statistical bafflegab that we rely on to say things like, a first choice applicant to co-op computer science will join the univeristy 65% of the time. So we compute an expected value on

our offers and our expected value for 2011 will be the same as it was in 2010.

**mathNEWS**: So out of curiousity, how often do you change those probabilities? Because it seems that recently we are getting a lot more people accepting offers to the school.

Goulden: They adapt from year to year. For instance when OUAC\*\* changed so that students could apply to far more than 3 programs, our data really had to adapt. We change from year to year so we would rely far more on last year's data than say data from 3 years ago. But it is basically an art, there are many pieces of small data. For example we have small programs like bioinformatics that are easier since they have smaller number of students. We have plans for deflection, which is a grand term for when someone applies to let's say accounting, and they can't quite make the requirements so we can't give you an offer there but we can give you an offer in business. So there are various strategies, as we call them, we think it's meant to be a polite term, for attracting top quality students.

**mathNEWS**: What is your opinion of *mathNEWS* as a paper and are you proud or rather amused that we have quite possibly the only long running successful university satirical paper in Canada?

**Goulden:** I am struck by the number of alumni who have told me that they go looking for *math*NEWS, sometimes weekly online. That they care when someone sends excerpted *math*NEWS to people and have fond memmories of their time as students. I am struck by, and I am not trying to trivialize it by calling it a tradition, but how the tradition of students writing for students seems to have staying power. I am proud that students stay up ... how late?

mathNEWS: \*Audible exasperation from editors\* Depends what term, but some terms we stay up until 3 A.M.

**Goulden:** Students are very involved and it is something they are proud to create and the faculty is proud as well. We for example haven't had any extended silliness to my knowledge that has been associated with some of the other faculty publications on this campus and elsewhere, or administration feeling we have to be careful with what we say. *math*NEWS seems fun for students and useful. I'll always care about it.

**mathNEWS**: So what do you think is the biggest issue that students in the faculty are currently facing?

**Goulden:** I don't know, I sit here and hope that students will tell me

mathNEWS: Well, what have students told you so far?

**Goulden:** Students are very interested that I care about their existance. We are studying on how to make that clear. More public venues for instance. Students care about the quality of their degree. Whether they have co-op jobs if they are in the co-op program. And I won't call it apathy but I haven't found students particularly enraged about things. And on the other hand it has been much easier for me to find more involved students, since it kind of comes with the position, so I have met many involved students who have been very positive people. It is hard to meet the uninvolved students.

**mathNEWS**: But that is a problem across the whole university in terms of student engagment.

**Goulden:** Yes, and I don't mean to be trite but when does a problem stop and it just becomes a reality? I think it would be really good to have a better student life building, to have people

who are more loudly excited to be part of UWaterloo. I see a lot of students, and I don't know if it is a vocal minority or not being proud to be Mathies, which I think is cool. I don't think it would be good if they didn't want to be part of UWaterloo but are proud to be Mathies here. It seems great. It would be better to have more students that love to be Mathies, but I don't think it's a problem that there isn't a certain higher proportion of students in that category.

mathNEWS: You mentioned that math students want to feel proud for their community. So what does the university plan to do to preserve the integrity associated with our degree? We are the only university in North America with a B.Math. In this day and age when university degrees are becoming much more common and jobs that required a bachelor's degree now require a master's degree.

Goulden: Honestly, I see over 30 years as a faculty member that I can point to courses where the exams have been easier now than a few years ago and we have effectivly 1500 first year students now and maybe we had six or eight hundred previously. I am struck by the quality of students in our faculty. I'm struck by the contrast of seeing what we do here in our faculty compared to many many other schools. I see all sorts of places that claim they have all these great students who are ready for this knowledgebased economy and all they take is a first level calculus course and cookbook stats course and that's the quantitative aspect of their syllabus. All of our students here take the core\*\*\* and most of them take at least 20 math courses. I think that we have maintained the essential quality that you have to be mathematically adept to get a degree here. You cannot fake it out with some baby courses and thus we have maintained our integrity and this is seen with higher recruitment of international students and students outside Ontario. We have not tried to double the number of students and take them all from Ontario and proclaim that they are just as good as they used to be. I think we have a broader base to our undergraduate body and working hard with our outreach programs, math competitions and computing competitions that we have maintained quality as much as we can. I am the first person to feel that if we let underlying qualities slip that this is very hard to reverse and we have to maintain quality, and I think we have. Mathematics isn't easy \*laughter from editors\* but there are a lot of programs where you get a B.Comm and they don't even have a spreadsheet course. Just cookbook stats and baby calculus and we are not even close to that. And you can have people who say that the Pure Math version of Group Theory is more important that "Baby Groups" but if you look at what we do compared to what is done in other universities, there are very strong small elite programs that compare with all the people that take all advanced math courses (very small group of people) but our advanced math students compare very favourably with those and then we have the other 1400 students in Honours Math who are quite skilled. And it isn't fair to have 1500 students compared to Harvard Math who have 10 or 20 students who are fantastically strong. It is only fair to compare students who come to our advanced classes with that group. Otherwise we stand up fantastically well. I'm really struck by professors in other schools' departments who talk about service teaching where students aren't very good and the course isn't quite strong. While at our faculty we get to teach courses that are very strong and demanding. But we need to have courses for everyone, for people who write math contests and are olympiad members and we have to have courses for that small group and what we do for them is not "better" than

what we do for our other math students, for the average student, something we can be proud of, and I think we do that. And I don't think that there is any point of attracting weaker and weaker students and pretending we are doing the same things. We can only keep this up by working hard and offering good scholarships and even if we expand our numbers over time we are getting stronger students.

mathNEWS: Have you ever tried to nail Jello to a tree? Goulden: Never, I used a staple gun but never a nail.

mathNEWS: Some people say that talking with university students is like trying to nail Jello to a tree. Any thoughts on this? Goulden: I wouldn't want anyone to think I was nailing them to a tree, but I've also been told that dealing with faculty members is like herding cats. Students don't want to be told and neither do faculty members. I find students nice to deal with, there is a minority of students who don't pass and we have systems to deal with them, but most students don't want to spend four years here feeling like their nose is to the grindstone and it's a crappy time they are having.

mathNEWS: We'd like to add it's often five years, not four.Goulden: Like kindergarden, the best three years of my life.mathNEWS: Tell us one thing that students wouldn't normally

know about you?

Goulden: One thing they wouldn't know about me?

mathNEWS: Yes, something so that they can say, "You know your dean may be great but you know what our Dean does?"

**Goulden**: I love installing hardwood floors. *math*NEWS: What kind? Mahogany, oak?

**Goulden**: Prefinished, I get to use the compressor; set it to 82 pounds and then if I hit it just right it sounds like a shotgun. *math*NEWS: As a closer, why did the chicken cross the Mobius strip?

**Goulden:** Why did the chicken cross the mobious strip? Because he didn't know about boundaries.

*math*NEWS: Thank you for your time and we hope to be speaking with you in the future.

Goulden: Thank you.

[\*Information Systems and Technology \*\*Ontario Universities' Application Centre \*\*\*The core mathematics courses e.g. MATH 135-8, 235,237 — Ed.]

The mathNEWS Editorial Staff

#### D&D tournament in MC summons demon

No one surprised

Last Saturday, the Waterloo SF Club (Summoning Fanatics) gathered people on the 4<sup>th</sup> floor of the MC in order to have a "Dungeons & Dragons Tournament". The group intended to gather twenty-five sacrifices to be lured into the ceremony and be killed by their "Dungeon Master". The group was to be split into five groups of five, to be arranged in the form of a pentagram to complete the summoning.

Unfortunately for the group, the sacrifice failed when it became obvious that they only had twenty-three people and that four out of the five "DMs" failed to light their candles. The demon that the group summoned was instead singing about "My Little Pony" and attempted to hug the closest person. Despite its good intentions, former Rhino candidate turned cult leader Ian Charlesworth burst into red flames flecked with blue and white.

#### The Shrouded Past

As promised, here's a rough translation of the Elvish poem from last issue:

In the distant past warriors fought here but now the bloody halls are quiet; worn armour lie in the lank corners, the bones of forgotten heroes spread about. Time has abandoned this forsaken place, the lonely keep withering away, betwixt the barren sands of history — now 'tis but a frozen drop in the sea of time.

Like bears searching for honey, minds of people wonder then people wander hither in a frenzied state, to find the dangerous enemies not quite dead. Silence is the message and Death the messenger, yet so many do not listen and learn from the past; this cursed fortress brings all misery; heed its warning else the cold iron will trap thee.

Zethar

#### **RE:** A Quenya Composition

After countless (well, countably many) hours poring over ancient magic (+5 or higher) tomes, the works of the great elven translators, handwritten marginalia, the directions for a love spell that I swear should have worked (more on that later), and mostly Google Translator, I have laboriously arrived at this humble translation of your breathtaking Quenya poem:

#### A Lament for Pointy Ears

O, woe is me, for I suffer the worst curse of elfhood: My ears are too pointy! I mean, the surface isn't even differentiable! But that is not the worst of it. No, the worst of it is: I have lost Alveola. Alveola, my lily-lovely lady-elf With whom I would carouse among the unicorns And chase the silk-soft moonbeams

She leaned in close to me, one fateful autumn night As we lay under Halley's Comet.
But she impaled her forehead upon my ear.
Alas, she left me then;
What a bitch.
Now everyone thinks I'm gay.
Why must I be so androgynous and pointy-eared?

-Salogel

Really, it sounds so much more lyrical in Quenya; this is a poor substitute for reading the original.

tesseract

#### Quote

**FuzzyED:** How many words (approximately) is one page of math NEWS?

**RamED:** About 500 words I believe, but don't quote me on that. **FuzzyED:** Okay.

#### The Marthsie Chronicles: Phantom of Conscience

Answers are found and a conclusion is reached at this moment!

Cayley couldn't fathom what Alice, Bob and Eve had told her. How could the guy she was trying to find have such an eerily similar handwriting style to her own? More importantly, how did she not notice this before?

"Could I really have a twin?" she thought to herself as she paced in her dorm room.

"Well, I don't think I would refer to myself as a twin of yours but I appreciate the consideration."

There he was, right in her doorway. There was the boy she had been searching for since the start of the term. She couldn't help but stare as he walked nonchalantly inside the room, as if he were all too familiar with it.

"How did you find me here?!"

"I thought that would've been obvious, but I'd rather not waste time by explaining. I'd like my book back, if you don't mind."

"Not before you tell me who you are! Not to mention how you have similar handwriting to mine!"

"Again, isn't that obvious? Haven't you wondered how you've seemingly been jumping from week to week without experiencing certain days? You've just been living these key moments since they involve me and now you're finally seeing the truth through me."

"Wait, what?"

"None of this is real, Cayley. You've been dreaming about finding yourself this whole time since you still haven't accepted that your true self involves art!"

"Well maybe it does, but how can I pursue it when I'm studying math?!"

"There are outlets to express yourself, you know. Join a club! Draw for *math*NEWS! It's not hard to do, but you've been suppressing your artistic side for so long that you've begun to deny it exists."

"I don't know! But isn't there a possibility I could like one subject more than the other? I'd rather stick to doing something I love rather than settle for two things I'm mediocre at."

"That's the point, Cayley! You are a Marthsie. You like math AND art equally and you're very good at both! Your grades told you that didn't they?"

"Not my university grades with regards to math though."

The boy leaned forward and hugged her.

"You'll figure it out. Just remember that you're a Marthsie. Math and art are your specialty. I'm proof of that."

With those words, the dream dissolved. Cayley found herself back in her dorm room, awakened to find the canvas she had painted and the calculus assignment she had attempted to do the night before still unfinished. She walked over to her canvas and saw that face. His face among a series of fractal framework. She knew he would only ever be her original character, but the dream of him was still in vivid memory. He would be her inspiration, for HE was the result of both her strengths.

"Thanks Archie. I needed that reminder. I'm still happy that I am good at both of the subjects, but I think I still need to truly figure it all out. One thing's for sure, I know now who I really am. I'm a Marthsie, and I'm proud of it!"

#### **Batter's Wood**

Also known as the Fantasy Baseball preview article

With the onset of spring just upon us, it's time for that old-fashioned timeless tradition of baseball! So pull out those bats, dust off the old glove, and let's play some ball!

Now, for those of us who are more numerically inclined, the coming baseball season also signals the beginning of fantasy baseball. The various cheat sheets at your disposal, all the statistics from last year... it's good to finally see the opening of fantasy sports once again, especially with hockey in its dying moments. If you were a Sens fan, the season was over in November anyway, so you must have been bored for a good three months now.

I had my main league's draft last weekend, late at night to accomodate my friends in Asia. I'm not going to tell you about all the "sleepers" of the draft, because every website already offers a billion of those guys. Instead, I'll highlight some picks in my draft that may offer perspective if you have yet to do yours. Here's a thought: You can't be a sleeper if you're already a top 30 pick, since there's not a whole lot of room to go upwards! Keep in mind this is a twelve-team league, and adjust pick round accordingly.

- Dan Uggla (Round 3, pick 9): The cat is out of the bag with Ugly. Everyone knows he's a homer hitter and that won't change. As a result, while every other website tells you he's a sleeper in the 5<sup>th</sup> round, Yahoo leagues are now taking him in the 3<sup>rd</sup> and 4<sup>th</sup> round. In my draft, Uggla went before Matt freaking Holliday. That's not a steal. It's fair value.
- Josh Johnson (Round 4, pick 6): Yahoo! currently has JJ ranked ahead of pitchers like Verlander, Sabathia and Price. While his stuff is of no question, the injury history as recent as last year suggests to me you need to be taking many other pitchers ahead of him.
- Elvis Andrus (Round 8, pick 7): As craptacular as the depth of shortshop is this year, is it really worth killing all power

from a roster position that early? Sure, Andrus can steal you thirty bases, but he's hit a total of 6 homers in his last 2 seasons (none of which came last year). If I wanted that kind of power sapping, I'm sure I can wait until much later for Furcal or any of the Cabreras (Alcides, Asdrubel).

- David Ortiz (Round 13, pick 12): Call me a fanboy, but Papi was excellent last year for his draft round, and his lineup is better this year. Even if you sap 7 homers to bring his total down to 25, his abundance in RBIs will make him a worthy investment 150 picks into the draft.
- Ryan Raburn, Adam Lind, Adam Jones (Round 15, picks 7-9): Raburn is everyone's #1 sleeper this year, but I'm not sure I'd take him over a guy who's done it before (Lind) or a guy who seems ready to break out like Jones. I'll be frank, I wasn't sure who Raburn was last year, so call me a non-believer.
- Veteran starting pitching: Seems to be an abundance of SPs falling late this year from yahoo!'s rankings. Peavy in round 19 is a no-risk, high reward pick, for example. I can't believe he was taking after a guy like Hellickson or Matusz.

The draft watch this year looks very interesting, with a lot of comparable pitching available late (some with more upsides than others) and a complete lack of shortstops. I literally waited past the 20th round to draft my shortstop (Nishioka) and with my depth elsewhere I managed to acquire Jeter from another owner who took two of the early ones. Don't reach for it, but if it's in your grasp, go ahead and take them.

On a completely different note, Batter's Wood is also a street near where my friend lives, but that's a different story.

Baseball Fanatic Panda

#### **Important Orange Crush Announcement**

Dear readers,

*Good Idea, Awful Idea* will be not appearing in this issue of *math*NEWS.

This is a direct result of someone named theDreamer, who published an article called *Good Idea*, *Bad Idea*, mimicking my regular column, in the last issue of *math*NEWS. I'm not sure whether theDreamer meant to make fun of me or whether he was just shamelessly ripping off my shameless ripping off of someone else. Either way, I'm deeply offended, and have spent the past three days in bed, crying and eating frozen bananas.

Mr. theDreamer (or Ms., as the case may be), you have earned yourself an arch-nemesis. According to last issue's *mastHEAD*, you were looking for an arch-nemesis with "Magic. And a good evil laugh". Well, you are in luck, as I was in the running to replace Heath Ledger for the next Batman movie before Christopher Nolan decided he doesn't like the Joker anymore. And I mean, who doesn't like the Joker? Anyway, theDreamer, we're officially enemies now. Unless you apologize I will hate you forever. Meanie. Boohoohoo.

To all other readers of *Good Idea*, *Awful Idea*, you are still invited to participate in the **Good Idea**, **Awful Idea Contest**. Send

your best Good Idea, Awful Ideas to orange.crush.uw@gmail.com, or slip them into the BLACK BOX. There haven't been too many submissions yet, so you stand a reasonably good chance of winning the grand prize - a lunch with me, Orange Crush! Come on, you pick the place, I'll buy you lunch. It'll take you two seconds to come up with something, so you have no excuse if you don't submit anything. Everybody's eligible to enter. Contest closes next Friday, March 25, at 11:59 pm. Best entries get published in the next issue of mathNEWS. For questions and details, contact Orange Crush.

I thank everyone for their interest in *Good Idea, Awful Idea*. Everyone except the Dreamer. Grrrrrrr...

Orange Crush

#### A Challenger Approaches

Dear Orange Crush: Challenge Accepted.

I Guess I'm the Fucking Batman theDreamer

#### The Missing Hour

or: Daylight Savings WHAT?!

So apparently, there's this thing called "Daylight Savings Time", which, as my fellow *mathNEWS* writers have informed me, causes us to instantly travel forward to 3:00 am once the clock hits 2:00 am. This, unfortunately, means that I had one less hour to not study for midterms. So, here's a list of what I could have done in the missing hour:

- Failure to study for a midterm
- Getting out of the 7<sup>th</sup> floor of MC
- Wait, I don't think that last one is quite right
- Painting a variety of elements which conduct electricity in a range of colours which are similar to the colour of blood
- Completing an article for mathNEWS
- Continued failure to study for a midterm
- Falling unconscious for an hour

RedMetal

#### **Charlie Sheen Proofs**

Or: Logic with two and a half brain-cells

Theorem: You are a loser.

Proof: Charlie Sheen is winning.
You are not Charlie Sheen.
Therefore, you are losing.
Repeat the argument n times.

You are a loser.

<u>Theorem</u>: You are a troll.

**Proof**: You are either with Charlie Sheen, or you are a troll.

Charlie Sheen is not in your immediate proximity.

Therefore, you are a troll.

Corollary: A warlock will kill you.

Theorem: Charlie Sheen is not Charlie Sheen.

**Proof**: Charlie Sheen has tiger blood.

There are no tigers on Mars.

Therefore, Charlie Sheen is not from Mars.

However, Charlie Sheen is a bitchin' rock star from Mars.

Therefore, Charlie Sheen is not Charlie Sheen.

Next lecture, we will prove that Justin Bieber converges to zero, and that Lady Gaga hates you.

(Clearly, doing a pure math assignment while watching Entertainment News was a mistake).

**Excitement** 

I don't know who else to talk to - I really think I have a problem. It bothers me all the time, plaguing my thoughts constantly. It was tolerable around November and December, but these last few months it's been starting to become unbearable. I can't pay attention in class (I really, really can't), finish my assignments on time, or pay attention to my friends. My boyfriend complains that I've completely started ignoring him because mineself can't stop thinking about it. I started talking about it during my last interview. Not surprisingly, mineself didn't get the job. Well, would I really want to work for an employer who isn't as excited about Anime North as I am? I mean, aksdghliaguhsgajkalsdgh, how can you not anticipate it all year long?!?! There are so many cute cosplayers (girls in minimal clothing, yes!), really adorable crossplayers (boys in skirts, yes!), sooooo many attractive furries (with such bouncy tails and soft ears and fluffy paws, meow!), chocobos, excellent costumery weapons, Asian candy (albeit, overpriced), and oh oh, so much more! You can buy holographic Sailor Moon stickers!!! FTW!! Can you imagine having those?! I have actually been thinking about those all year. And all the figurines that it's hard to get online! And then there's all the doujinshi that's sooooo hard to get. The best place to go for that stuff is nominoichi, WHICH WILL BE IN THE TCC THIS YEAR!!! Yes! No more walking long distances to buy bins of 18+ graphic tentacle "art". I can easily transport it back to my room for viewing pleasure (I wonder what my roomates will think - they'll probably be as excited as mineself). I'm so excited about Anime North I tell everyone I meet. Does anyone need a room, by the way? We're trying to lower the cost of our room by cramming in tons of people. If the Double Tree staff asks for our passes (because they have really strict fire code regulations), we'll just tell them we're having an orgy!! They can't say no to that! Plus, mineself will share all the yummy Pocky I buy with my roommates! You should definitely join us! Is that not enough for you? Well, mineself's soon to be purchasing bins of 18+ graphic tentacle art and will definitely be open to browsing! I'll also let you pet my tail, ears, and paws!! Meow meow meow.

Note: This article is a joke. Not everyone who attends Anime North is a pervert, but mineself found it appropriate to poke at stereotypes. And no, I am not looking for any more roommates.

mineself

#### Wooing the ladies

I apparently attempt to without knowing it.

So, during the *math*NEWS production night, when I'm talking to the female writers, apparently I'm attempting to woo them. Now, I don't know how people got this idea. All I do is climb up onto the table they are working on, lay myself on my side giving them a full frontal view of my body, speak to them softly, accentuate my speech with suggestive facial expressions, and make them laugh. What in the above would come across as my attempting to woo said lady?

Soviet Canadian

#### The Drunken Baneling

Hey guys, this is SteveX and I will be starting a new column for *math*NEWS which discusses life, StarCraft 2, and how UWaterloo is imbalanced.

First off, Waterloo's StarCraft 2 team has made it to the playoffs of Collegiate Starleague for the third consecutive season. It's really no surprise when you look at our lineup of players and past record (winners of Season 1 and top eight in Season 2).

With seven(7)! players in the top 200 of North America, our best known strategies include scaring our opponents into forfeit (happened three times in the season), scaring our opponents to quit from the league (University of Advancing Technology), and putting multiple nexii in the opponent's base. Needless to say, our opponents are usually crying in a corner after the match. Last weekend against Clemson, their coordinator apologized for their weak team and stated, I quote, "We are pussies and Waterloo is the almighty god, whose players are the epitome of manliness". (Some quotes may not be 100% accurate) Waterloo is right now the #1 ranked university in North America IN GENERAL and is the favourite to win the season over more than 150 other universities. Since this is mathNEWS, I'm sure you are aware of how powerful IN GENERAL is.

Our first playoff match is on March 26th vs University of Illinois at UC. Get Hyped!

#### Mental Regurgitation:

As an avid SC2 player and dedicated Computer Science student, I am very not proud to say that I do not have female contact on a daily basis. Or weekly, or monthly... However, I am actively trying to change that. I have came up with a solution that does not compromise my work or SC2: Dreaming. That's right, now I am managing my time so well that I'm satisfying my necessities even in my sleep. I have achieved such proficiency at it that... Who are we kidding here, dreaming doesn't work at all. I blame the issue on Waterloo.

#### SC2 tidbit: How to deal with Banshees and Void Rays as a MAN

The sneaky Terran and Protoss players will often try to use the above two units to eke out an easy win by killing your workers/tech buildings. Fear not! I am here to explain how to deal with those cheap units. The solution is: BE A MAN AND TAKE IT. As a MAN (or if you are a female StarCraft 2 player, I need your number for professional reasons), there are some things you just have to endure. Certain things such as paying for dinner on dates, following the bro code, and accepting the fact that you're most likely single in Waterloo. Facing banshees or void rays is the same. Just take it like a MAN. OR you can try to build units that can hit air and counterattack him. Whichever way works for you.

#### Builds To Try:

In a 2v2, 3v3, or 4v4, an interesting strategy to try is the mothership nuke. The strategy revolves around getting mothership(s) and nukes very quickly. When the opponents attack with their army, laugh at them and suck all of their units into the vortex. Nuke at the same time. Nuke call down time is the same duration as the vortex. So when all the opponents' units exit the vortex, they get nuked in the face. Win from there. Warning: this build may induce moments of extreme epicness. Pregnant women and people with heart conditions should not attempt this build.

btw, John Lee's pretty awesome

Team Waterloo hangs out in Channel UWaterloo on Bnet NA server. Check out team waterloo at http://www.cstarleague.com/league/teams/205. If you are interested in playing for Waterloo or SC2 in general, email WaterlooSCLeague@gmail.com.

SteveX

#### Was WatSFiC's D&D Tournament any good?

Damned if I know...

So here's the deal... your crazy floating sky island falls from the sky and you and the survivors are forced to, well, survive. That's it, that's all you get.

The party consists of a Half-Orc schoolteacher who's also a martial arts master, an escaped Elven prisoner, some crazy Dwarf sheriff, a Halfling bard, and a crazy street magician who believes in magic. So in keeping with every D&D campaign ever, they have some sort of Dwarf fighter and some sort of Halfling trickster. Yep, those Sci-Fi geeks have done it again.

Now add a douchebag king, a nonsensical biodome and a babysnatching cult and you get the gist of the story line. Oh, don't forget the door, the door that is specifically designed to kill as many people as possible. In fact, it killed three survivors, sort of... We kind of fed the baby-cult leader to it at one point in a fit of revenge.

The strange thing about this campaign was that the school teacher with his Half-Orcish, dumb-but-not-too-dumb grasp of science was basically able to solve all of the puzzles through remarkable feats of engineering and science. There was a chasm with a floating river where we hooked up a pulley system and towed ourselves across.

The escape rafts we made were converted into amphibious

vehicles that we used for the rest of the campaign. These vehicles saved our asses more than once. Basically the path we had to take to accommodate the vehicles bypassed half the encounters. I kinda got tired of the DM saying, "And you keep going for a while." There were a damn lot of whiles.

But hey, at least the players were good. Talia, the aforementioned street magician, managed to sacrifice a small child while we were busy crippling a cult leader after a crazy keep-away game with a baby. That being said, she then betrayed us to make us believe that she could actually do magic. That's when she betrayed us again to the evil power-hungry rich dude, whom she promptly betrayed when we stumbled upon their escape attempt when we started believing in her magic.

Hell, ridiculousness and bad stereotypes are pretty much the two reasons anyone plays a role-playing game. I mean, RPGs are designed to maximize standardization right? Whatever. Either way, someone had fun even if it may have been Ian Charlesworth at our expense. Jerk. Now I have to go subscribe to both of his blogs and obsess over his Twitter account 'cause I can't live without his RPG magnificence. I  $< 3\ \rm Ian$ .

Yorkshireshire

#### **Orange News**

In this edition of Orange News, the best damn news on the planet and beyond, we reveal a shocking development coming to you from just across the street.

As it turns out, on Monday this week (March 14), a graduate student at Wilfrid Laurier University's Masters in Finance program has claimed to have found the last digit of Pi. It's 6.

A certain source of information defines Pi as "a mathematical constant whose value is the ratio of any Euclidean plane circle's circumference to its diameter". The Engineering faculty at UW defines Pi as 3.14. The Arts faculty misspells it, and then defines it as a type of baked dish. Until recently, it was believed students at Laurier had absolutely no idea what Pi is at all. Apparently that was not the case.

Upon hearing of the Laurier student's discovery, his program supervisor attempted to validate his findings. However, nobody at Laurier could understand any of the math involved even at a rudimentary level. As a result, they've crossed the street (despite the awful weather), and asked for help from our very own UW Math Faculty. The Faculty Dean didn't want to get involved with Laurier people, so he delegated the problem to the Head of the Pure Math Department, who then delegated it to a different professor, who delegated it to one of his graduate students, who had nobody to delegate the problem to, so he actually took a look at it.

While the findings were being confirmed, I took the time to find out what YOU, the regular students of UW's Math Faculty, had to say about the fact that a Laurier student found the last digit of Pi.

Mark, a 1B student in general math or something, said "I didn't know Laurier had a math faculty too…" Laurier does not have a Math Faculty. Mark fails.

Courtney, a 4B Double Degree student, claimed "That's impossible! And I'm Laurier-based, I would've heard. When did this happen? What's going on? Wait… that doesn't even make any

#### THE ROBOTS ARE COMING! THE ROBOTS ARE COMING!

The PAC will be the FIRST to get invaded on campus next week.

You heard right, folks! Robots made by high school students will be arriving on March  $24^{\text{th}}$  to compete in another round of the competition that is FIRST until March  $26^{\text{th}}$ . The goal of the game this year: try and put the most shapes on a giant coat rack as possible...or is it?!

Supposedly University of Waterloo students have been recruited to help at this gathering. For what purpose, The Dean and the event organizers only know. Sources have hinted that it could be that these students just want to help out for the sake of helping out, but other more likely explanations include the robots using these UW students to slowly take over the world, or that they simply want an excuse to not study for finals for another weekend.

If YOU happen to be strolling around PAC on March 24, 25 or 26, do take a look at what the robots are up to, but do remember to come prepared should things go out of hand. Who knows, maybe you'll find Waldo while you're there!

sense. Hey, are you that guy from Orange *math*NEWS?". Courtney then laughed, called me insane, and put her shirt back on.

I have also approached Diane, a ravishing 2B CS student, for a comment. She must have already heard about the issue and was very much distressed that the discovery of the last digit of Pi was made by a student of Laurier rather than UW, because she started running away from me before I could even open my mouth. Of course, I gave chase out of the MC and into the DC, and then up the stairs. I quickly cornered her on the third floor of the DC. Having nowhere to run from the horrifying news of Laurier's mathematical triumph, and certainly NOT because of me, Diane jumped off the third floor of the DC and started plummeting towards the first floor, right in front of the DC Library doors.

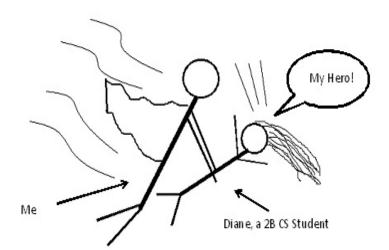
Luckily, I quickly changed into my Orange Crush super-hero uniform (including a rockin' orange cape) and had just enough time to fly down and catch her before she hit the ground. After I saved her life, Diane finally agreed to go out with me. So it was a pretty good day for everyone. Peter Parker took a picture of the dramatic occurrence, which hopefully mathNEWS can publish.

In an update to our main story, the UW graduate student has concluded his findings after verifying the Laurier student's claim that he found the last digit of Pi. An official representative of the Math Faculty at UW issued the following statement:

"The findings of the Laurier student who claimed he found the last digit of Pi were premature. We advise him to look up the meaning of the mathematical term 'irrational number'. However, due to the student's courage and interest in math, the Mathematics Faculty at the University of Waterloo has decided to make available some funds to purchase the student a calculator that can display more than 8 significant digits".

And that's the end of that. Join us next time were we attempt to find out the true identity of a mysterious super-hero with an orange cape who's been sighted on campus recently.

Orange Crush



Above: Photo-Realistic Picture of Orange Crush.

#### the SMURF's Guide to Being Sick

\*cough\* \*cough\* \*cough\*

Greetings mathies! As you probably can't tell over a printed medium, I am sick \*coughs\*. I am writing this on the morning of  $\pi$  Day \*coughs\* because this silly sickness is stopping me from getting any sleep and I hope that I can distract my sickness by writing it down \*coughs\*. It made sense at the time. This article is written in real time, so whenever you see "coughs", \*coughs\* but with the \*'s, I am actually coughing. It's like a reality show or something \*coughs\*.

Now, getting sick for me has a pattern, and I have gotten used to it now. The first step is usually having a bitching day, which involves playing \*coughs\* lots of board/card games and may or may not involve killing many mosquitoes. Fucking mosquitoes. Anyhow, after such a day, \*coughs\* I will arrive home late, with a slight pain in my throat when I swallow. This is the first sign, and the "awwww shit" moment. Kinda like the feeling when you tip your chair back too much and realize that gravity is now pulling you the other way.

The second \*coughs\* stage of getting sick is waking up the next morning feeling like absolute crap. Usually a fever, severe headaches, and nausea. This is the all-important stage of deciding whether to stay home. I usually head off to class and try to infect as many people as possible. I can never get Madagascar though. Fucking Madagascar \*coughs\*. This is possibly the worst stage.

Stage three is an interesting period. I usually feel slightly better but still pretty sick, and as a result I'll try to carry on normally. Then, when I can't sleep due to the sickness, I get up at 1 A.M. and write a crappy mathNEWS article.

Stage four is whawf aashaba sd braaaaaaaaaaaaaaaaaains

theZOMBIE

#### **Invasion of the Proto-frosh**

So did anyone notice on Tuesday that the SLC (and areas all over campus) was overrun by little things that seemed to be frosh, but were even smaller and had even less developed minds? If so, do not be alarmed. Sightings of these 'proto-frosh' have been reported periodically throughout the semester, although only in small numbers and usually on weekends. They have been confirmed to be harmless, although possibly highly annoying, with side effects of clogging every doorway on campus. These proto-frosh are accompanied at all times by adults who have large wallets and are somehow linked to proto-frosh becoming pre-frosh.

The recent upsurge of proto-frosh is part of their annual migratory pattern, which has been named 'March Open House' and has been linked to the "orientation week" where pre-frosh become frosh. Although it has not been confirmed, experts believe that at the 'March Open House' many proto-frosh become pre-frosh, although no one has yet observed this.

On a side note, if you so wish, you may try to take one "under your wing" and train them as a henchman, an occupation they have proven to be rather skilled at. Be warned, though, that protofrosh are worse than cannon-fodder, and that pre-frosh (or, better yet, frosh) are the preferred henchmen (although their minds are hard to bend to your will).

Soviet Canadian

#### I Hate You People

Allow me to play doubles advocate here for a moment. For all intensive purposes I think you are wrong. In an age where false morals are a diamond dozen, true virtues are a blessing in the skies. We often put our false morality on a petal stool like a bunch of pre-Madonnas, but you all seem to be taking something very valuable for granite. So I ask of you to mustard up all the strength you can because it is a doggy dog world out there. Although there is some merit to what you are saying it seems like you have a huge ship on your shoulder. In your argument you seem to throw everything in but the kids N'sync, and even though you are having a feel day with this I am here to bring you back into reality. I have a sick sense when it comes to these types of things. It is almost spooky, because I cannot turn a blonde eye to these glaring flaws in your rhetoric. I have zero taller ants when it comes to people spouting out hate in the name of moral righteousness. You just need to remember what comes around is all around, and when supply and command fails you will be the first to go.

Make my words, when you get down to brass stacks it doesn't take rocket appliances to get two birds stoned at once. It's clear who makes the pants in this relationship, and sometimes you just have to swallow your prize and accept the facts. You might have to come to this conclusion through denial and error but I swear on my mother's mating name that when you put the petal to the medal you will pass with flying carpets like it's a peach of cake.

The Unfortunate Optimist

#### My Dear

Ever since I first found you I have fallen in love with you. When I gaze upon you, all sense of rationality leaves me, and I am left confused, dazed, irrational. I do not know you, exactly, but there is no love lost. My feelings for you are never-ending, and will continue on forever. You are eternal, you are everlasting, and you are better than imaginary; you are real. Should I one day wake up and find that you have ended, I will be shattered, and my basis will be broken. I do not know what I would do without you.

I love you,  $\pi$ .

Mathematics

#### Before I kill you, I must show you .

If you were going to be killed, what would you want to be the last thing that you are shown? If you were going to kill someone, what would be the one thing you feel you must show them?

Submit your answers to the *math* NEWS BLACK BOX, and the best can be put into the next issue of *math* NEWS!

Soviet Canadian

#### profQUOTES

It's not correct, but it's obvious.

Godsil, MATH 249

For technical reasons, we can't require a student to be in two places at the same time.

Godsil, MATH 249

If you're in the alternating series story, please fall into the trap!

Zorzitto, MATH 148

The main theme today was this picture, everything else is filler.

Zorzitto, MATH 148

Let the MATH 138 guys screw it up on their final.

Zorzitto, MATH 148

[About series convergence] You can put the first 50 terms in the shredder, bring them back as dinosaurs, it doesn't matter!

Zorzitto, MATH 148

If you don't remember about Cauchy sequences, well, time to remember.

Zorzitto, MATH 148

How the hell did we end up talking about hyperinflation in World of Warcraft?

Doyle, ECON 402

That's not plagiarism. That's taking advantage of other peoples' work.

Trefler, CS 245

For next time, I am teaching you this. If I ask how your exam was, you reply, "Terrible." Then I try to make the final easier.

Banerjee, STAT 443

Student: Can you make our assignment due Friday? Prof: Maybe if you all buy me a beer or something...

Banerjee, STAT 443

So yesterday I was introduced to this website, it's called OMG UW dot com. They talk about professors and stuff, so I shouldn't go on there. But they have statistics [on visitors]. There was a linear trend - people love it or something - [...] and there was seasonality.

Banerjee, STAT 443

There are pearls of wisdom coming out as I lecture.

Terry, CS 116

This is the one course in which you can "strip" and not get in trouble.

Terry, CS 116

[On noncommutative operations] Order matters. Studying then writing an exam is not the same as writing an exam and then studying.

Ng, MATH 146

(Class is amazed at Ubuntu's desktop effects) Yeah, that's Linux for you.

Anderson, CS 136

(on using abort())So we take out our keys and we stick them in and turn them at the same time, just like for the Goldeneye satellite, and a rocket explodes just as it was about to hit Toronto.

Anderson, CS 136

You didn't remember my birthday, but that's okay, you remembered your ASCII codes, and that's far more important.

Anderson, CS 136

(About whether an assignment is due after the midterm) Is anyone carrying a weapon?

Anderson, CS 136

Cats that fall from higher than seven stories actually sustain less injuries than if they fell from five to seven stories. Anyone know why? It's on the midterm.

Anderson, CS 136

If I wanted to look ridiculous I'd get one of those leather jackets with my program name on them.

Anderson, CS 136

So this set doesn't actually have a zero; it fails under scalar multiplication too. This set is a complete loser. Not to show up at the bar Friday night.

Furino, MATH 136

You know, if you're going to a bar, and you're trying to pick up someone of your preferred gender, you're gonna fail if you can't do your Subspace Test!

Furino, MATH 136

(writing 'Sudbury' on the board) I was born in Paradise.

Furino, MATH 136

You're walking down the street. Some solution dealer walks up to you and says, 'I've got solutions for 20 bucks.'

Furino, MATH 136

So we haven't proved something today, and I don't want you to go home depressed.

Furino, MATH 136

You say, 'How do you know that's true?' It's because I'm OLD.

Furino, MATH 136

Say we're working with a thousand variables. Geometrically, it's hard to look at. [But] you can smoke the right stuff.

Furino, MATH 136

If you read 'follows immediately', that's when you hide.

Furino, MATH 136

What they did back then was open competition; they'd put two mathematicians in an arena, sell tickets, and have them solve problems.

Furino, MATH 136

Evidence gathered through torture isn't admissible in court, except in the United States.

Furino, MATH 136

Some people used 'similarly' on question 8 [of the midterm]. They did the first part and said, similarly, the second part. They got zero on the first part, so they got a similar mark for the second part.

Furino, MATH 136

Furino, MATH 136

Student: "Can you visualize kernel and range?" Prof: "Depends on how much you smoke."

So this is dumb, but completely true.

Park, MATH 138

So you can go into court and say  $1 \le 1$ . They go 'Oh.' And nothing happens.

Park, MATH 138

'Monotonic' kind of sounds like an alcoholic beverage.

Park, MATH 138

(On the almost snow day) It's really treacherous out there; I even lost my sock.

Park, MATH 138

You go to New York and you go to Saks Fifth Avenue with the sole purpose of buying a new basis.

Furino, MATH 136

You see a basis with n+1 vectors, but you don't buy it because it is junk.

Furino, MATH 136

I took a look at the term test. You will be glad to know that I got 75 percent.

Furino, MATH 136

I hear cows mooing?

Spielmacher, ENGL 119

A meow massages the heart.

Anderson, CS 136

[Mistake in code pointed out] Okay you got me, that's going into the... Sure, the hall of fame.

Anderson, CS 136

Alright let's replace this with something else we probably don't want.

Anderson, CS 136

[Coming up with a large number of end brackets to finish a program] Prof: So now we play this game of  $\dots$ 

Student: BRACKET WAR!

Prof: Yeah, Bracket Wars, Good ol' Bracket Wars...

Anderson, CS 136

Student: Where is the dungeon for [the university]?

Prof: We're in it.

Anderson, CS 136

Prof: So here is the question, you just turned 21-

Student: BLACKJACK!

Prof: WRONG!

Anderson, CS 136

[Cutting off a student who is talking] Prof: Yes, you [points to a random student]

Student: Me?

Prof: Yes, you had your hand up, right?

Student: No.

Prof: Now you do, talk.

Novak, PHIL 100

If you want to think of this as an epic fail on the part of mathematics, you can.

Guo, Math 137

If for some reason you had to do this at gunpoint, you should be able to draw a formal memory diagram.

Anderson, CS136

Ah Wikipedia, the answer to everything...

Anderson, CS 136

You got me, I got this from Wikipedia.

Anderson, CS 136

## Submit your *profQUOTES* to the *mathNEWS BLACK BOX* in the hallway outside of the Comfy Lounge (MC 3001)

#### Life of $\pi$

Thanks for not telling me about the that last production meeting, guys

[If you want to hear about production meetings, email:

mathnews@student.math.uwaterloo.ca asking to be added to the distribution list — FuzzyED]

Despite having twenty other things to do over Reading Week, I bought a book. Wow, actually reading on Reading Week! That's Waterloo innovation for you. The book was one I had been wanting to read for a while, called "Life of  $\pi$ ". Now, I quite liked the main character, whose name was  $\pi$ , so I decided that when I have kids, I'm going to name them all after irrational numbers too. I think I'm going to name my first son "e". Then, when he comes home crying to me because all the kids at school call him "Wall-e", I'm going to give him a hug and say, "Aww, honey, they're just jealous because you're a natural. Now go mow the ln." My next daughter will be "i", and I will sue Apple for stealing her name and using it in all their products. She will spend a lot of time daydreaming, so I will have to remind her that her imaginary friends aren't real and that life is complex. Oh wait, "i" isn't an irrational number. Well, crap. I guess I'll have to name my daughter "root(x)" then. She'll be a detective who is always trying to find the root of the problem. Saving the best for last, I'll name my youngest son " $\pi$ ", just like the book character. When he grows up, he's going to become a famous baker. He'll live near the beach, where he can get a nice tan and enjoy the sin waves.

BlueberryMuffin



Pink Beer will be served

#### **MathSoc General Meeting**

Thursday March 31th 2011 5:30pm in the Comfy lounge (MC3001)

All Math Undergraduate Students have a Vote

#### **AGENDA ITEMS**

- 1. Special Committee on Spending Report
- 2. Bylaw amendments

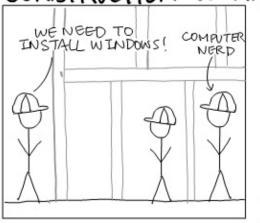
Details available in the MathSoc office by Thursday March 24<sup>th</sup> 2011

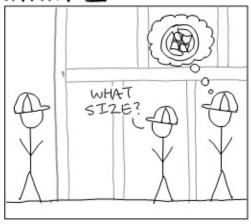


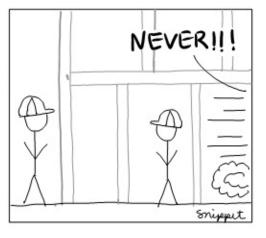
**Free Appetizers** 

Mathematics Society - MC 3038, University of Waterloo, Waterloo, ON N2L 3G1 - (519) 888-4567 x32324

#### CONSTRUCTION WORK, PART II







### Drywaller

"Listen up. Our client isn't picky, as long as each square has the right number of walls surrounding it. Sounds a little tricky, but we didn't get to be the #3 drywall outfit in town by being lazy."

Also:

- There's a wall around the outside
- They want exactly 12 rooms

| 2 | 1 | 1 | 1 | 2 | 3 | 2 | 3 | 2 | 2 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 1 | 2 | 4 | 3 | 3 | 3 | 2 |
| 1 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 |
| 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 |
| 2 | 1 | 2 | 3 | 2 | 2 | 3 | 4 | 3 | 2 |
| 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 |

# Mbrellas

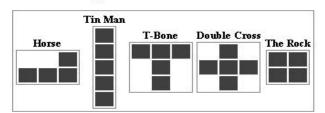
Place the following 10 squares on the 10 circles so that the overlapping numbers match up.

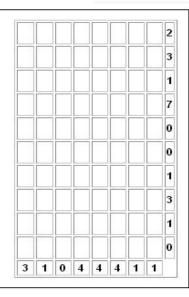
| 7      | 5 | 2 | 3        | 0 | 6 | 8 | 3<br>5 |
|--------|---|---|----------|---|---|---|--------|
| 3<br>5 | 3 | 1 | <u>0</u> | 3 | 7 | 1 | 18     |
| 8      | 2 | 7 | 9        |   |   |   |        |

#### Sicint

The precious 10x8 grid that we call home has been infiltrated. Signals intelligence tells us that the following agents are somewhere nearby, all they can tell us about their locations is

- . How many squares in a row or column are occupied
- They've been ordered to disperse so they aren't touching, not even diagonally.
- · Remember: they can rotate.





## uzzles courtesy of euri.ca

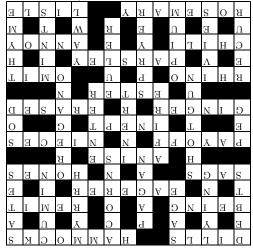
#### **Quick Clues**

#### Across

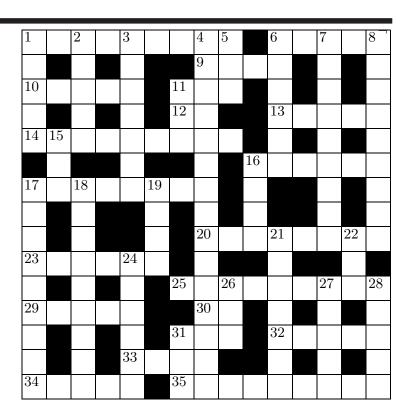
- 1. Device to maintain reference direction
- 6. Abyss
- 9. Denounce, condemn
- 10. Sing annoyingly
- 11. Acquire
- 12. That thing
- 13. Cease
- 14. Portent
- 16. Opinion
- 17. Purple rock
- 20. Brutal totalitarian dictator
- 23. Twelve semitones
- 25. Act of rising up
- 29. Seize, appropriate
- 30. Negative
- 31. X
- 32. Portrayal
- 33. Cries of dismay
- 34. Crescent ends
- 35. Space rocks

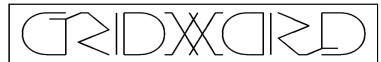
#### Down

- 1. Pictograph
- 2. Radio detection and ranging
- 3. Inconsiderate
- 4. Overambitiousness
- 5. Consume
- 6. Split apart
- 7. Armoured mammal
- 8. Perplexed
- 11. Performance
- 15. Goal
- 16. Scourge
- 17. Unquestionable
- 18. Void
- 19. Days long past
- 21. Less viscous
- 22. Seventeenth in alphabet
- 24. Female foxes
- 26. Sting
- 27. Citizen of Baghdad
- 28. Necessities
- 31. Hot leaf juice



Last Week's Answers





#### *grid*COMMENTS

Liberté! Égalité! Mots croisés!

Hello once again gridWORD readers. The revolution continues on for glorious freedom! Last week's gridQUESTION was "What is biggest flaw with capitalist pig-dog economics?" There were many answers submitted, and all glorious, but the first among equals was from BlueberryMuffin, whose answer was "It's run by donkeys and elephants." Unfortunately, while BlueberryMuffin did not enter a single letter incorrectly, BlueberryMuffin also did not enter a single letter correctly as there was no grid attached. Therefore the winner is Diana Mackinnon, whose answer was "Bill O'Reilly. You can't explain that." Please claim your prize in the MathSoc office.

This week I also received a submission for the grid from Issue 3, which unfortunately is far too late. Please remember that the deadline for submissions is 4:00 PM on the second Monday after the issue comes out; in this case, the deadline will be March 28th.

These week's *gridQUESTION* is "When is the best time for hunting rabid porcupines?" As always, submit your answer (along with a complete *gridWORD*) to the BLACK BOX on the third floor.

¬perki

