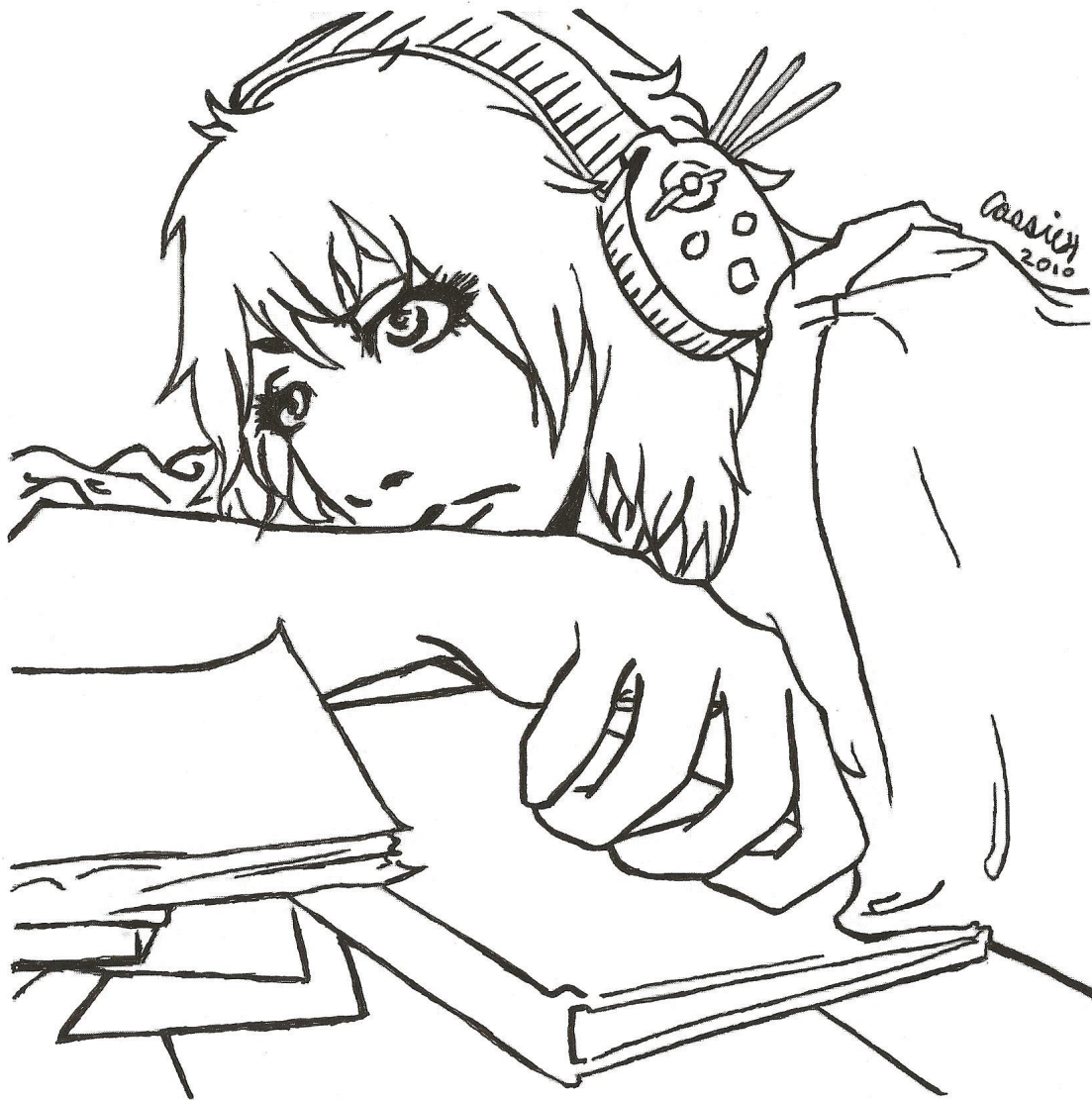


# *math* NEWS

Volume 114, Issue 4

Friday, November 5th, 2010



Sigh... midterms...



9 770705 041004

**lookAHEAD****mathNEWS**

|             |                                                |
|-------------|------------------------------------------------|
| November 5  | Issue 4 is remembered.                         |
| November 15 | Production Night #5<br>Meet in MC 3038 at 6:30 |
| November 19 | Issue 5 is getting prettied up.                |

**MathSoc**

|             |                                                        |
|-------------|--------------------------------------------------------|
| Tuesdays    | Games Night                                            |
| Thursdays   | Movie nights                                           |
| TODAY       | Pick up Charity Ball Tickets                           |
| November 10 | MEF Funding Proposals and MEF Council applications due |
| November 20 | MathSoc Charity Ball                                   |

**CECS**

|            |                                      |
|------------|--------------------------------------|
| Right Now! | Interviews, you should check Jobmine |
|------------|--------------------------------------|

**Faculty of Math**

|         |                                                               |
|---------|---------------------------------------------------------------|
| Ongoing | Open enrollment for Winter 2010<br>(continuing students only) |
|---------|---------------------------------------------------------------|

**Miscellaneous**

|             |                                  |
|-------------|----------------------------------|
| November 5  | Guy Fawkes Day                   |
| November 11 | Remembrance Day!                 |
| November 26 | WATSFIC Writing Contest Deadline |

**Hipsters find obscure brain slugs that you wouldn't understand**

The recent outbreak of an invasion of mind-controlling brain slugs from outer space isn't an excuse to settle for less, according to a group of University of Waterloo students. Amidst the chaos of the invasion this small group of four, well dressed students are definitely making their points clear: just because we're being enslaved against our will, it doesn't mean that we shouldn't lower our standards.

"The nicest thing about the slug that controls me is that it wasn't mass produced," says Victor Skywater, 1A Rec and Leisure, "it's different and has its own unique style." Unlike other people afflicted with a brain slug, Skywater and his friends can often be found sitting at a local coffee shop, discussing how refreshing it is to have access to a brain slug that hasn't sold out.

The Hee Ho

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The editor(s): John Stevenson, John Baxter, Rami Finkelstein, Harrison Gross, and Jeff Bain; Sailors Jupiter, Mercury, Venus, Mars, and Moon respectively.

**mastHEAD**

Howdy concerned readers!

So, once again, the Conservatives are rather heavy handedly trying to introduce a wire tapping bill. The "Investigative Power for the 21st Century Act" and the "Investigating and Preventing Criminal Electronic Communications" are the newest attempts by the Canadian government to impinge upon your rights and freedoms, such as the freedom to not worry about some old Conservative bigot or a power-hungry police officer searching through your personal computer without *even obtaining a warrant*.

Yay? I love the notion of abusive farts reading my browser history.

So think about this logically. Yes, the government right now is a bumbling and clumsy agent, and probably doesn't even know what a browser is. But what will the government be like in 20 years? 100 years? What precedents are we setting for generations after us if we allow such blatant abuse of governmental powers? Warrants exist for a reason. They exist to protect us, the people, from those given power, like police officers. (I don't hate police officers. I know a few, and they are courteous and helpful people. However, people are people. Power is power. Time is time. The police officers I know won't be police officers in 100 years, and I have a tendency not to trust people given power, especially if I don't know them and can't hold them accountable for their actions.)

Look it up! Get educated and make an opinion. Go to the CBC! Think I'm wrong? Write back! Either way, educate yourself and make an informed decision! These people are supposed to be representing you! They are supposed to be accountable to you! If they aren't, speak up, tell them, and make sure your voice is heard.

On a lighter note: **mastHEAD Question:** How would you eavesdrop on your friends and loved ones?

Corrupted ("A network of whores who are also spies. But mostly whores."), GroovyED ("Just listen closely, paper-thin walls make privacy impossible."), Mustard Map ("By telling them, 'I'm eavesdropping on your conversation!'", !able ("Using the new Facebook Friendship Pages of course!"), !case ("Assume a contradiction and derive their discussions."), Big Mak ("Predict the conversations and psychically hear them."), Algoweird ("Get a job at Google."), Tbor ("Hanging from the raintroughs like I always do."), ¬perki ("Any method of eavesdropping works vaccously."), theSMURF ("With a machete."), Zethar ("There is no need when you have their minds in your hands."), !theNewGuy ("From the edge of the roof, using pliers or screwdrivers, and a hacksaw."), Williver Dalliard "You mean Sacha and @stephenfry? Hmm...").

ImpulsED

"With a light and subtle touch..."

**Prez Sez**

If you are reading this right now, then it's time to go get your Charity Ball ticket. Right now. Go! Today's the last day of ticket sales - go to MC3038 to get your ticket! Go, go right now! Ruuuuuuuuuuuuuuuun!

Nadia Novikova  
MathSoc President, Fall 2010

## MEF - Call for Funding Proposals and Funding Council Members

The Math Endowment Fund (MEF) is currently soliciting funding proposals for the Fall 2010 Term. MEF is an endowment fund operated by the math student body with the mandate of funding projects that improve undergraduate mathematics education. One of MEF's primary goals is to give back to math students through the funding of various initiatives. To meet this objective, MEF finances projects such as the purchase of new club office equipment, the purchase of CSCF computer servers, math orientation, and the attendance of conferences (ex. travel expenses and registration fees). Here are more details if you are interested in submitting a proposal:

### Funding Proposals

The deadline for submitting a proposal for the term is midnight on Wednesday, Nov. 10<sup>th</sup>, 2010. Submit proposals online at <http://www.student.math.uwaterloo.ca/~mefcom/proposals> by clicking the green "Go to online funding proposals application" link. Copies of the funding proposal are also available for download in .pdf and .doc. However, we require that all proposals be submitted electronically.

### Funding Council Positions

There are also student positions available on the Funding Council. The student positions are voting members of the Funding Council and only need to attend one meeting this term during the late afternoon to early evening of Tuesday, Nov. 16<sup>th</sup>, 2010. At the meeting, the Funding Council listens to presentations by and critiques the proposals of the groups requesting funding. Afterwards, the Funding Council votes on how much funding should be allocated to each proposal. Dinner and refreshments are provided.

Funding Council members are needed for both year reps (3 per year) and for program reps (2 per program). A full list of the Funding Council positions can be found on the MEF website (<http://www.student.math.uwaterloo.ca/~mefcom/members>). Nomination forms can be found in .pdf and .doc formats, and are due by Wednesday, Nov. 10<sup>th</sup>, 2010 to the MEF Office (MC 3050).

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

Terrence Chin  
Fall 2010 MEF Director

**The first article of "Rainbow Mathies," a queer issues column will appear in the next issue of mathNEWS.**

(define this (not cool))

## At Your Service!

Hey everyone! Not much going on in FedS at the moment so we thought we'd let you know about all of FedS' services and what they have to offer to you!

**Campus Response Team (CRT)**— We are students volunteering to make our campus a safer place for everybody! CRT attends special events and many campus pub nights. We are prepared to deal with many health and safety emergencies. You'll recognize our red gear as we patrol to ensure that everybody can enjoy these events safely. Visit us at [crt.feds.ca](http://crt.feds.ca) or in SLC 2141.

**The Food Bank**— Strapped for cash? Need some food? Don't go hungry! Come to the student-run Food Bank to get some groceries for free! It's confidential. You should never have to skip a meal because you can't afford one. Your brain needs nutritious energy to excel in school! Visit us at [foodbank.feds.ca](http://foodbank.feds.ca) or in SLC 2104.

**GLOW**— You are not alone. Whether you're feeling confused or confident about your sexuality, GLOW is for you! There are weekly discussion groups and social evenings, a resource library, and much more! Come to meet others who are going through the same thing as you. Visit us at [knowyourglow.ca](http://knowyourglow.ca) or in SLC 2101.

**International Student Connection (ISC)**— This service promotes student interaction by organizing all kinds of events and trips. The events include beginning- and end-of-term parties and pub nights. Trips include Wonderland, Niagara Falls, and more! Visit us at [isc.feds.ca](http://isc.feds.ca) or in SLC 3107.

**Off-Campus Dons (OCD)**— It can be a challenge to live off campus during first year! Off-Campus Dons are here to help you adjust and thrive! You can meet other off-campus students and upper year students are available to answer your questions and to show you the ropes! Visit us at [ocd.feds.ca](http://ocd.feds.ca) or in SLC 2142.

**Student Refugee Program (SRP)**— WUSC's unique Student Refugee Program helps refugee students resettle in Canada and pursue their studies in an environment free of violence and fear. Visit us in SLC 3107.

**UW Sustainability Project (UWSP)**— We bring students together from all faculties to work on environmental related projects. We are also dedicated to raising environmental awareness issues on campus. Visit us at [uwsp.feds.ca](http://uwsp.feds.ca) or in SLC 3102.

**Women's Centre**— This is a great place for every woman and man at UW to hang out and chat about women's issues. This is a comfortable and inclusive environment to relax in. You can also sign out books or magazines from our library, watch a movie, or attend a workshop. Visit us at [women.feds.ca](http://women.feds.ca) or in SLC 2102.

These services are here for you! Make use of them!

Ian Kasper, Andre Magalhaes, Prashant Patel, Alex Russell & Piraveena Tharmaligam

Your FedS' Math Councillors

**VPAS Sez**

See Prez Sez.

Ian Charlesworth  
MathSoc Vice President Activities & Services



## C S C F L A S H

Greetings students! The Fall edition of the Computer Science Club Flash is upon you. The leaves are falling, but hopefully your resolve is not: the end of term is near! This issue brings you the freshest news yet, the CSC's Code Party! Tonight, from 7PM onward, the C&D will be occupied by coders, snacks, drinks, and probably music with only 8 bits. If you've always wanted to contribute to a Free/Libre or Open Source Software project but were never sure where to start, now is your chance. CSC members will be contributing to projects and will be able to give you pointers. Public code not for you? Simply work on your own projects or homework in an atmosphere full of programming. Next weekend, on Saturday November 13th, the CSC will be taking a field trip to visit the University of Toronto Computer Science Student Union at UofT's St. George (downtown) campus. The cost for the bus trip straight to UofT and back is \$2, and is for members only. You can still register for the term for \$2 if you'd like to come on the trip but you will have to do so in advance. Lastly, don't forget that you can hang out with the CSC crew at the MathSoc Charity Ball on November 20th.

Calum T. Dalek,  
Chairbeing Extraordinaire



**Computer  
Science  
Club**

### It's All About Women in Math!

The Women in Mathematics Undergraduate Committee (WIMugrad) is an integral part of the University of Waterloo, whose goal is to create an environment where academic success is promoted and social interaction is encouraged. WIM is not a committee exclusive to only women in math. All Waterloo students, both men and women, are welcome to come out to WIM events.

Do not worry if you have not been able to make it out to our past WIM events. There are still tons of more fun events coming up before the term ends. For instance, we have the speaker event, which is happening on November 10th from 7pm-8pm. As well, join us in December for WIM's ultimate end of term party! For more information about upcoming events keep your eyes open for any posters around MC or feel free to email us at [wimugrad@gmail.com](mailto:wimugrad@gmail.com).

WIMugrad Fall 2010

### NaNoWriMo

*Aspiring Author? Want to challenge yourself?*

For those who are uninitiated, NaNoWriMo stands for the National Novel Writing Month. Every November, thousands of aspiring writers across the world come together with the same goal: To create a 50,000 word work of fiction within the span of 30 days. There are no other rules, but you must start it on November 1st and the last day is November 30th.

If you're an aspiring author or simply want to challenge yourself like my brother vowed to, head on over to [NaNoWriMo.org](http://NaNoWriMo.org) and register! They will provide you with support, a tool to keep track of your progress and a way to communicate with the thousands upon thousands of other people like you!

NaNoWriMo Panda

## WatSFic Sez

Hello one and all! The Waterloo Sci-fi & Fantasy Club has a couple of fun events coming up. First off is our tri-weekly board games day! It starts at noon on Saturday November 6<sup>th</sup> and goes until we get bored/tired/rigor mortis. It's happening in the MC Comfy Lounge (MC 3001).

Next up is our book club. It's not too late to join in if you want to participate, we will be discussing *Foundation* and the first half of *Foundation and Empire* (You should read the books if you want to join the discussion). We'll be meeting in **MC4064** on Monday November 8<sup>th</sup> at 6 P.M.. We will also be having tea, if you want some, please bring a mug and perhaps some teabags if you crave for a certain flavour.

Finally, our short story writing contest is well underway. We are accepting science fiction or fantasy short stories of up to 7500 words in length. The deadline is 11:59:59 on November 26<sup>th</sup>; you can submit articles at our email, [watsfic@gmail.com](mailto:watsfic@gmail.com) or by dropping them off in the FedS Clubs Library with one of our library workers. The prizes are gift cards for Indigo/Chapters. Please check out the full contest details on our website, <http://www.watsfic.uwaterloo.ca/>.

Reminder, we have weekly meetings on Wednesday nights, Friday Night Magic on, you guessed it, Friday nights, and Living Forgotten Realms is also being played. You can check out more on our website <http://www.watsfic.uwaterloo.ca/>. You can also subscribe to our mailing list.

Harrison Gross  
WatSFic Vice President Fall 2010

## Waterloo Mathematics Review: Call For Papers

See: <http://mathreview.uwaterloo.ca/>



## Spontaneous Tetrification of Math Students Continues to Baffle Scientists.

## Math Grad Sez

Hey Everyone!

Here are some reminders from your friendly neighbourhood Math Graduation Committee:

**Grad Photos:** Have you taken your grad photos yet? You should get on that before the end of November! Life Touch (<http://www.lifetouchatwaterloo.com/>) is taking appointments on a weekly basis. This applies even if you are convocating in Fall 2011!

**Yearbook:** You can now pre-order yours and personalize it too! Visit our website for more details (URL below). There is also a cover contest!!!

Dimensions: 8.5" x 11"

Include: Front, Side, and Back Cover Designs

Number of Colours: 2 max

DPI: 300

Due Date: November 16th, 2010 at 11:59 PM

Submit To (online): [uwmgc2011@gmail.com](mailto:uwmgc2011@gmail.com)

Submit To (paper): MGC Mailbox in MathSoc (MC 3038)

Prizes: TBA

(Tip: Label details like embossing, etc...)

**Picture Submission:** Do you have any pictures you would like to see in your yearbook? For more information please visit:  
<http://www.mgc.uwaterloo.ca/yearbook/>.

**Domino's Pizza Sales:** These happen EVERY Wednesday on the 3rd floor of MC starting at 11:30 AM! Come get some cheap lunch and help raise funds for grad ball! Nom nom nom! We need some more volunteers for this! If you're available, please email us at [uwmgc2011@gmail.com](mailto:uwmgc2011@gmail.com)!

**Volunteers:** MGC is always looking for volunteers to help with their weekly pizza sales and various other activities. If you are interested please email us at [uwmgc2011@gmail.com](mailto:uwmgc2011@gmail.com).

Thank you,

Maria Christina Greco

Communications Director

Mathematics Graduation Committee 2011

E-mail: [uwmgc2011@gmail.com](mailto:uwmgc2011@gmail.com)

Website: <http://mgc.uwaterloo.ca>

Facebook: UW Mathematics Graduating Class of 2011

Twitter: UWMGC2011

## Newsgroups And YOU!

*The main cause of my current mental degradation*

**DISCLAIMER:** This article contains an excessive amount of profanity and general shit. If you are currently eating it is advised that you skip this article and come back to it later. If you are easily offended, STOP READING RIGHT NOW. Finally, my experiences are based solely on the CS135 newsgroup, and does not reflect other newsgroups.

Like any responsible student currently enrolled in CS135, I periodically check the newsgroup that they kindly set up for us. But every time I open the thing, I am greeted with pages upon pages of bullshit (read: messages). There's so much bullshit in there, and as far as I know, the instructors haven't done any cleaning for a while. You know what happens when you leave bullshit just sitting there? It piles up, and before you know it, you're knee deep in bullshit. Everywhere. Now THAT'S bullshit.

Now, the power and ability to clean up the bullshit belongs to the farmers (read: instructors), and we (the bovine) are powerless to do so. No one likes this and besides, the farmers probably have more important things to do than clean up after us, such as planting (doing research) and harvesting crops (publishing papers). They're not going to take the time just to clean up after our bullshit.

But don't fret, my bovine brothers and sisters, for there is a way. See, when you take a shit, there are two ways to do it.

One way, the sanitary way, is that when you shit, you go in a corner. Furthermore, that corner is now designated the "shit corner", and everyone else also use the corner. That way, only that corner will get covered in shit, while the rest of the barn stays relatively clean. This is the optimal strategy, and is applied (in most parts) to human society as well.

However, the majority of you do not understand this, and have an alternative method that pisses me off (no pun intended). In-

stead of containing your shit to a corner, you shit wherever you like, whenever you like. Not only that, some of you decide "Hey, why don't I also smear this shit everywhere?! That'll be fun!". Now, the entire barn is full of shit, and the worst part is that you don't even realize it's your fault. Those of us who are trying to contain the shit to a corner get seriously pissed off (seriously, no pun intended (seriously (see what I did there? (oh shit, this is turning into that Scheme article again (BAD\_SMURF\_EXCEPTION)))))).

Basically, what I'm trying to say with this metaphor is **stop making stupid posts on the newsgroup**. I'll admit, no one is perfect, and we've all made mistakes. Hell, my own posts could've been improved. You're all forgiven for your past mistakes. But please, for the love of Stallman, make better posts in the future.

Here are some basic rules for forums. I took for granted that everyone knew these. I was wrong.

1. Search before you post. If there's a thread for it, read it. If you don't understand, post IN THAT THREAD. Do not start another thread.
2. Make your subject line meaningful. Something like "A03/Q02 - Function output for special cases" makes me sing and dance. Something like "URGENT! HELP! WHAT IS THIS ERROR?" makes me huff kittens and piss fire.
3. Don't answer questions you don't know the answers to. Just don't. I see so many wrong answers provided by students on the newsgroup, and it makes me cringe. Stop that. Let the instructors and TA do it. If I see another wrong answer provided by students, **N'gggyleth kkkul N'kkul N'gggyleth Wattqawa Cthulhu! Ry'leth Avk Rttleh Cthulhu!!!!**

With hate,  
theSMURF

## Warrantless Wiretapping Bill in front of the House of Commons Again

The Conservative government, as well as the previous Liberal government, clearly do not care about our civil liberties. <http://www.cbc.ca/politics/story/2010/11/01/justice-nicholson-justice-isp.html> details the introduction of two new bills as follows:

The Investigative Power for the 21st Century Act would:

- Allow police to identify all network nodes and jurisdictions involved in data transmission and trace the communications back to a suspect.
- Force ISPs to keep data temporarily so that it isn't lost or deleted before law enforcement agencies return with a search warrant or production order to obtain it.
- Make it illegal to possess a computer virus for the purpose of committing a criminal offence.
- Enhance international co-operation to help Canadian authorities investigate alleged crime that goes beyond its borders.

Its partner, the Investigating and Preventing Criminal Electronic Communications Act, would:

- Force ISPs to install interception systems in their networks, making it easier for law enforcement or national security agencies to intercept information.
- Provide police with "timely access" to personal information about subscribers, including names, address and internet addresses, without the need for a warrant.

These powers are a slap in the face to the privacy of all Canadians, as warrantless gathering of data is against the entire concept of due process, and goes against the spirit of Section 8 of the Charter of Rights and Freedoms, the right against unreasonable search and seizure. What especially disgusts me is the hypocrisy of this government, allowing for such a bill that curtails the privacy of Canadians when previously they defended the ending of the Long Form Census on the grounds of the privacy of a small number of individuals.

I urge all of you who care about your privacy to begin encrypting your internet activities immediately, to prevent the government, and any unsavoury individuals who wish to peek on your actions. I also strongly urge all of you to write to Peter Braid, the local Conservative MP, expressing your disagreement with this proposed bill. His riding email is [braidp1@parl.gc.ca](mailto:braidp1@parl.gc.ca) and if you wish to contact him in writing, the address can be located here: <http://www.peterbraid.ca/EN/8042/>

GroovyED

## To X from Y

To the X out there whom I depend upon, you affect me constantly, but I have yet to meet you. Maybe one day we will meet, and then I will finally have roots to call my own.

Sincerely,  
Your Y

## Desert Bus 4

*A New Hope*

I've been trying to think all day of what I can say that would make you care about Desert Bus for Hope.

And I can't. Desert Bus for Hope is an internet telethon in which you, yes you, watch 5 people play the world's worst video game in history, ever. Desert Bus, from Penn and Teller's *Smoke and Mirrors* for the Sega CD has a simple premise. You drive an empty bus, in real time, from Tucson, Arizona to Las Vegas, Nevada along an empty straight highway with some terribly boring desert scenery. And the occasional bug splat. It takes 8 hours, and when you reach Vegas, you score one point, turn around, and drive back to Tucson. Oh, and the bus slowly lists to the right.

Now why, pray tell, would you WANT to watch people play this game? Well, for one, it's exceptionally funny watching these 5 people take 24 hour shifts playing the worst video game ever. Plus, all money raised goes to a good cause: Child's Play Charity. What beats a charity that gives toys and games to poor, sick children in hospitals? Not much.

And here is the best part: Not only do we get to watch the slow, inevitable descent into insanity of LoadingReadyRun (Victoria-based internet sketch comedy troupe who run the event); not only do you get to donate to a worthy cause; you get to make them dance for your money.

Or sing, or do something else stupid. A huge portion of the money they raise (in the three years they have been running, that's over \$200,000) comes from donation challenges. Want Graham to sing "Still Alive?" He'll do it for \$20. Want Matt to Rickroll the driver? He'll probably do it for \$50. Want Kathleen to dance the Caramelldansen? Another \$20. I think you get the idea.

Oh, and did I mention they have auctions? Live ones, with awesome stuff either made by their fans (sadly my craft-along attempt fell on its face this year), or donated by various nerdy stars and companies. Wil Wheaton has called in, as has Teller (of THE Penn and Teller).

All this, with a live video feed on uStream massive chatroom. I assure you you'll find me there as much as I can spare. Hopefully I'll even win some auctions (screw tuition, I want stuff).

So, I realized, I couldn't convince you to like desert bus, but I could tell you why I do.

I hope you are intrigued enough to check them out come November 19th, 9:00 PM EST.

For more information, check out [www.desertbus.org](http://www.desertbus.org)

And for more info on the wonderful sketch comedy group who puts it on, check out [www.loadingreadyrun.com](http://www.loadingreadyrun.com)

May the Bus be with you,  
theDreamer



## A Noir Journalist on Oct 31<sup>st</sup>

*What the federalists are hiding from you*

The date was October 31<sup>st</sup>. I'd received an anonymous tip from some of the federalists on campus that an "event" was going down at their hall that night. I knew it was my journalistic duty to check it out, to sniff out any possible scoop.

As I arrived, the place was filled with smoke. I wandered through the haze and checked in my coat. I was settling in for the long haul, to try and drag out some sort of information.

The place was dead. I reckoned it was still early, but I worried I came all this way for nothing. Slowly but surely, the guests began to filter into the smoke filled hall. I could not believe my eyes some of the people that had shown up.

It was clear that despite the old Chevron being disbanded, the communist ties of the federalists was apparent, Fidel Castro himself was in attendance. I was ready to make this an exposition on the evils that I noticed within, but then I paused.

Off in the corner, I noticed Rosie the Riveter. I was astonished that such an esteemed worker from the war was at such a party. She couldn't be a communist, she just couldn't. Fidel must have finally enacted those market reforms in the same style China did, only way he could have been there.

It was a strange party however. A large red monster approached me and shouted, "ANIMAL IS SICK!". I was taken aback by this muppetistic maniac. He was a barbarous animal, and I escaped quickly. As I stumbled away, I ran into a man in a large green and white outfit. Not one to turn down someone asking to be quoted, I allowed him to speak. "I am here to defeat the evil emperor Zurg!" he said ecstatically. He then told me his suit was homemade. It was rather impressive, I have to admit.

I slogged through the throng over to the bar to get myself a drink. One of the girls seemed to know me, though I certainly didn't remember her. Getting a quote, she yelled, "I love being Alice!" I suspect her demeanor was caused by some sort of fungus based foodstuff. The smell seemed to give it away.

There were a large cast of characters that showed up, and I don't really have space to list them all, but I will certainly try. Here is a small list: The Cat in the Hat, Hit Girl, Link & Navi (male & female), Link & Navi (female & male), the Space JAM squad, the genie of the lamp, Eccentric Upper Class Twit & Date, Tetris Blocks, Medusa, Ron Burgundy (He signed my jazz flute!), Pocahontas & John Smith, a hammerhead shark, Facebook, the Blueman Group, the Phantom of the Opera, a twister board, Waldo, Dr. Horrible (took a pic, did a blog), Arthur Dent (that frood had no idea where his towel was), Anonymous, The 9 of Hearts, Han Solo, Batman, Two-Face, the Pope, Steve Urkel, Domo-Kun, a Pharaoh, and God's Gift to Women.

The federalists have certainly hosted strange events in the past, but this took the cake. In my tenure with this mathematics newspaper, I would have never expected to see some of the things I saw that night. Here's looking at you, kids.

GroovyED au Noir

## Every Math Personal Ever

Single UW student seeks same for relationship  
I am 19, fun loving, good looking, and intelligent.  
I have my own place, know how to cook, and am clean.  
Please submit replies to the **BLACK BOX**

Lonely in Waterloo

## Administration's Secret Agenda Revealed!

In light of recent events, it has been painfully determined that the exam scheduling commission at the University of Waterloo has a vendetta against the gracious coalition of writers and editors who write the *mathNEWS* issues every fortnight.

Their plan is this: by forcing all the first year math students to have their examinations during the times when *mathNEWS* is being produced, no first-year student would ever be able to join the board, and thus would never gain the requisite experience needed to write quality articles. They wish to weaken the foundations of the publication by culling the influx of talented writers and editors so they can seize the budget allocated to *mathNEWS* to buy pizza for themselves.

As faithful readers of the glorious *mathNEWS*, it is imperative that you do not let the publication of Waterloo's Faculty of Mathematics die out by some whimsical will of a faceless, bureaucratic dictatorship. Join *mathNEWS* production nights, and contribute to the awesome within!

Zethar

## An Infinity and Beyond

*Math is Hard*

After being a student in the Math faculty for as long as I have, a fact becomes apparent. It's the sort of fact that you joke about for a while, and then you start to take it a little bit more seriously, and then a little bit more seriously, until one day you realize that you are completely serious about it and your life has changed. The fact to which I refer is this: *Math is hard*. Like I said, it sounds like jokery. But I have not only discovered that this is a fundamental truth of mathematics (like the Axiom of Choice), but I have discovered why this is so. The problem is actually really simple when you think about it, sort of like proving the divergence of the sum of reciprocals of primes (which you'll have already seen if you took MATH 145). The problem is that math involves doing infinity things at once. This runs all the way down to the core of math. Look at something simple, such as the Archimedean property of the natural numbers. It can be expressed in one way as saying that if  $n$  is a natural number, then  $n + 1$  is a natural number. Think about this for a second. There are infinity natural numbers (I counted). This is not proving something about one number. Or two numbers. Or three numbers. Or even four numbers (though by now we've probably convinced the engineers that it holds for all numbers and some kinds of birds). You are trying to prove this about infinity numbers. This is hard. And it gets far worse. Consider the definition of integer division. For all integers  $p$  and  $q$ , there exist integers  $a$  and  $r$  such that blah blah blah. This involves proving things about not just infinity things, but infinity infinity things. There are infinity  $ps$ , and for everyone one of those, there are infinity  $qs$ . That's infinity infinity different possibilities. Do you know what infinity times infinity is? It's infinity! And then there's calculus! The real numbers! For every  $\epsilon > 0$  - do you know how many real numbers there are? I'm pretty sure there's infinity, but I'm not actually sure. I tried to count, but I couldn't. So there's probably infinity. Calculus is hard! Oh, and don't even talk to me about category theory.

Algoweird

**profQUOTES 4: A New profQUOTE**

I don't want to know what goes on in the tutorial. What happens in the tutorial stays in the tutorial.

Mayer, AMATH 250

I'm not gonna give you a value - I'm gonna give you a riddle, and when you come back with a heart, brains, and courage I'll give you the value.

Cormack, CS 145

Say you want to explore all the streams at the same time. 'But there's only one of me!' you say. It's easy! Get out your cloning machine, and at least one of you will live happily ever after.

Cormack, CS 145

Let's pretend you're real.

Cormack, CS 145

I want a program that can go out into the world and play with other people and programs.

Cormack, CS 145

You say 'Wait a minute, I'm addicted to Windows!' Get over it.

Cormack, CS 145

C is the encapsulation of all evil.

Cormack, CS 145

In Java you can walk up to an array and ask it how big it is. 'I'm five!' 'Good for you! One day you'll be a big array!'

Clarke, CS 137

Remember that 'linear combo' is slang for 'linear combination'. So if you ever go to the Bronx, don't say 'linear combination', say 'linear combo'. Otherwise they beat you up.

Andre, MATH 115

Never try to find the inverse of a matrix that isn't square. You'll hurt yourself. Well, if you're accompanied by an adult then it's fine.

Andre, MATH 115

Who takes the determinant of a  $1 \times 1$  matrix? Well, you can, but people will think you're strange. Stay away from people who do that.

Andre, MATH 115

If someone gives you an invertible matrix, that's pretty special. But if the matrix is diagonalizable... there might be more than friendship involved here.

Andre, MATH 115

At this point in the proof you usually pause and get a sandwich.

Andre, MATH 115

[About how quantum mechanics invalidate classical mechanics] Everything I'm teaching you is wrong! But you better learn it!

Mann, PHYS 121

If you want your test remarked, hand it back and say something like "Look at 1b." You can put a longwinded explanation if you want, but I won't read it.

Balka, STAT 206

How many of you read xkcd? If you don't know what it is, that's your homework for the weekend.

Mayer, AMATH 250

Now I'm worried. I'm laughing on the outside but crying on the inside.

Banerjee, STAT 231

In order to make the beer-GPA example an experimental plan I would have to choose a bunch of people and feed one 3 beers, another 4 beers, and so on. It would be a nice experiment but probably wouldn't be legal.

Banerjee, STAT 231

I'm not completely incompetent. I'm only sort-of incompetent.

Kaplan, CS 135

I thought I was the real once. Apparently, I am a clone too.

Kaplan, CS 135

They haven't fired me yet, but after this course, who knows?

Vrscay, Math 137

Student: Can we memorize it?

Vrscay: No, you're not allowed to memorize it. I will check your neurons.

Vrscay, Math 137

There is no real logical connection between what I just said and what I'm going to do next.

Banerjee, STAT 231

[Talking about linear dependence and independence in matrices] I sound like a tabloid! I just exposed a dependency relationship!

Celmins, MATH 225

Prof: So we have an oracle program. Does anybody know what an oracle is?

Student 1: An evil company.

Student 2: A lady in the Matrix who bakes cookies for you.

Prof: Exactly.

Patrick, CS 241

We could fix it, but it's expensive. So we won't.

Patrick, CS 241

Student: Don't worry, you can always bell curve the midterm.

Prof: I could bell curve it the other way.

Hasan, ECE 222

***Has your prof said something quotable? Type it up and send it to [mathnews@student.math.uwaterloo.ca](mailto:mathnews@student.math.uwaterloo.ca), or write it down and drop it in the BLACK BOX (located on the MC 3<sup>rd</sup> floor, between the Comfy and the C&D).***



## profQUOTES 5: The profQUOTES Strike Back

Prof: I expect that you should be able to prove this on the final.

Student: Is this a hint?

Prof: That we have a final? Yes!

Trefler, SE 212

Find chairs from other rooms. If there are students in other rooms, just slap them and take them.

Mann, PHYS 121

### How I Found My Halloween Costume

The date: October 13th. I realised that I had no idea what to wear to the most amazing weekend of all time, or every 6 years. The hallowed three-day Hallowe'en. My friends and I decided that if our costumes were great enough, we could get national media coverage. We didn't know where to start, so I went to my Applied Math friend, and he used Excel to determine the best place to start the search: the Inauguration of David Johnson as Governor General, a place of fancy suits and nerdy Waterloo references. My team of Waterloo geniuses quickly went to the train station, and waited  $N$  minutes of time for a train going  $X$  m/s... etc., calculated by the undecided first years (I had to find a place for them somewhere).

We arrived in Ottawa, donned our fanciest digs, and walked to Parliament, after stopping at every fine liquor establishment on Elgin Street (it was Scotchober at the time). We arrived and were sitting outside the Tomb of the Unknown Soldier, when a Frenchman walked by with a poofy hat. This poofy hat was the most amazing hat known to man. Our Computer Scientist took a picture of the hat, placed it in an image recognition program, and found the next location on our quest for Hallowe'en greatness: Hermes Boutique in Paris.

We touched down in the city of non-brotherly love, waiting five hours to get through customs. For some reasons, the French did not believe that Mathies would fly halfway around the world to get a hat. As we left, we heard a scuffle break out.

"You can't stop me! I'm Charlie Sheen, and I'm tired of these mother.."

It appeared as if the walking drugstore was being held down by a French customs officer. My ActSci major friend went up to the French Customs officer, and pointed out the fact that 90% of people who come into contact with Charlie Sheen have syphilis.

### Another mathNEWS Quiz!

Here's my second attempt at making something vaguely similar to a quiz!

Thanks to BlueberryMuffin for submitting the only set of answers, so by definition they have to be correct.

1. A counterexample to Fermat's Last Theorem.
2. *mathNEWS* is to Imprint as gold is to?
3. Some adjectives to describe zombies.
4. Correct answers to the *gridWORD*, before the deadline.
5. A way to stop the decline in *mathNEWS* quality.
6. A fitting tribute to Jeff Bain, in honour of his zombification.
7. Solutions to the Math 245 midterm.
8. Working code for a new production system for *mathNEWS*.
9. An abstraction of life and death.
10. An algorithm for picking up girls.

!theNewGuy

Fungi are fantastic. You have to honor your fungi brethren.

Kaplan, CS 135

The brave ancestors of the chicken that split off and said: "Go away! We're going to lay eggs!"

Kaplan, CS 135

Just use it, but don't understand how it works.

Kaplan, CS 135

The officer immediately stopped and ran. Charlie turned to us.

"You guys are the best! But to be honest, I think it's a lot closer to 65%."

We headed to Charlie's executive suite for some hookers and blow. At two in the morning, he let his secret go:

"I know where the Chilean miners are!" and proceeded to let us know the exact location of the miners. We were so thrilled, because if we could take famous third-world labour to a Hallowe'en party, we would be the kings of the parties. To make sure Charlie Sheen wouldn't follow us, we threw his heroin out the window and told him we hid it in the room.

We landed in Chile, and it was slightly cold, but not enough to make a pun. We followed his instructions and arrived at an orphanage/brothel, Clearly Mr. Sheen's target of choice in the South American country. We began to leave when the FBI started following us.

Thirteen days later we woke up on the streets of Washington, DC. We rolled over and realized that we were being stepped on by the opposite of angry protesters: neutral Jon Stewart fans. We were three seconds from being bored to death when our Pure Math major friend told them that the democrats were opposed to set theory, and gave a fantastical proof based on the prime numbers. This caused an angry riot that allowed us to escape to the Canadian border.

When we got to the border, we had to explain our elongated story, not because the Canadian Border Agency actually cared, but because we had to tell someone. They were so amazed, they gave us their outfits to wear to a party.

And our Hallowe'en was a success because we brought a large harem of Chileans in our suitcases.

### Comfy Antics

Tbor

The buzz of conversation in my ears. Paper snowflakes we cut out of the Imprint lying on the table. Ah, chilling out in the Comfy. In the hour between Calculus class Good and Calculus class Bad, what better haven to turn to than the Comfy? The chairs come in four flavours: Red, Blue, Green and Indiscernible. The tables also come in four flavours: Taken, Free, Half-full and Broken. Not sure what happened to that last one. Glancing around the Comfy, you see people playing computer games, doing homework and screaming at each other over cards. Humming snack machines line the walls like a million robots waiting to attack. Where's Megatron when you need him?

My friend cuts herself a paper beard. Apparently she's participating in No-Shave November. We try the Imprint crossword. Not surprisingly, it sucks. There's that lovely sick feeling in my gut, where I know I should be doing homework but definitely am not. I glance at the clock. Crap. Time to go to class. Goodbye sweet Comfy, 'til we meet again.

BlueberryMuffin

## Hey You

Yes, you. The one in front of me with the laptop out during class. Or the 15 to 20 of you. Either stop playing flash games, or get to the back of the room. You aren't paying attention, that's obvious. Unfortunately, neither is anyone sitting behind you. Yes, we know it's interesting, that's why you're playing. We agree it's more interesting than the lecture, which is why we are distracted. However, we also know it's highly unlikely that it's going to come up on an exam, while the stuff on the board might.

Take note, because if you don't, hunting season is coming up and I have a lot of nerf darts and small paper shurikens.

## The One I Gave My Heart To

!case

To the one I hold dearly in my heart:

I've been sending you messages and gifts ever since we exchanged such warm words. I remember when you shyly approached me. At first I didn't think much of you, but you started to grow on me. I was so happy ever since that day.

However, you've been distancing yourself from me for the past few days. You refuse to talk about it. Have you lost interest? It hurts me to know that you possibly did. I never thought in my life that I would ever fall this much in love.

I used to think that relationships were pointless, and only a few days of "fun" from them was all I needed. You taught me that it's possible to actually fall in love - that one person can make your life complete.

I hope you've been receiving the gifts I've been sending you. I remember how much you told me you loved them. Hopefully the message that I still love you is clear, and you won't abandon me.

I hope you've been receiving the hearts of my love. Remember how you said you loved cats and dogs? Did you receive my precious gifts? Since you loved them so much, I was sure that sending you their hearts would prove how much I love you. The hearts come from the inside, and people always say how one's heart represents their love. So wouldn't the greatest sign of love be giving the hearts of the things you love directly to you? Ah, maybe you didn't love animals as much as I thought.

I'm sorry for being clingy. I hope I don't repel you. Maybe the gifts were wrong from the start. Wait, I know why! You need something you truly love from deep down. I remember how much you said you love your family...

Girl who dissects for love

## *ultra*CLASSIFIEDS

Lost: Sense of Dignity. Last seen sometime in or around the 31st of October. If anyone has seen my pants, please shove them in the blackBOX.

Wanted: Army of Robots to aid in my attempts at reclaiming kitchen from messy roommates. I would prefer them to have stun weapons, but am not above lethal force. It's a really messy kitchen.

Found: Powerful voodoo magic. I've been using it to make an army of zombie slaves, but now they're messing up my apartment. Willing to part with it for a very good price. Zombie army negotiable.

Found: Jeff Bain. He's a Zombie now.

## NHL Quick Hits

*No longer on top edition*

After going 3-0-0 to start the season, the Leafs followed their next seven games with a mediocre 2-4-1 record. The goaltending has been very solid so far, and the defense has been half-decent. The culprit? A lack of offense from the thin forward corp. This isn't exactly a new concept; Before the season, most pundits predicted the scoring-by-committee approach for the Leafs to produce less than they did last year. However, all is not lost! For one, we kicked Ottawa's ass this past Tuesday (bold prediction!) and sooner or later Versteeg will start to score. The guy's a pretty streaky player so his points will likely come in bunches. Fear not! In the meantime, here's other things around the NHL I've wanted to mention:

- Rick Nash has only 5 points so far through the first 10 games. That's a pretty disappointing start, but he's also on pace for 350+ shots. Sooner or later they should start going in... Right?
- Is there a better comeback story than Tim Thomas? Six games into the season and his sv% is a gaudy 98.4%. No, this isn't NHL11 on easy mode.
- On the other end of the spectrum, Lecavalier and Gagne hasn't worked out as well as Tampa had hoped. So much for running two scoring lines? No matter, Stamkos is ridiculous so far. That said, it's a hot streak. He is not, and I will stand by this if necessary each week, in the same class as Crosby or Ovechkin. I'd say Malkin's better than him as well. That said, he's still a damn fine player... Probably a solid 4th place choice now.
- On the topic of Penguins... Jordan Staal apparently broke his hand in practice and might be out another 4-6 weeks with that. Poor guy, yikes.
- You know what team I feel for? New Jersey. Brodeur, despite his best effort, can't carry his team with a lack of cap space and cohesion right now. Parise's banged up and Kovalchuk is simply not worth 100 million dollars right now in terms of his play. Worst of all, they don't have the cap room to get fixes in the near future.
- On the west side, Calgary Flames' epic meltdown against the Capitals was simply amazing. Iginla's just not as good as he used to be and the Flames might be in some serious trouble this year. Time for Brent Sutter to put coaching on the line now.

Hockey Fan Panda

**Remember the 11th of November,  
not the 5th... Duh...**

## Obituary - The Closest Thing mathNEWS Ever Had To Something Serious

With Apologies to Jonathan Coulton and Gaston  
Julia

“Pathological monsters!”, cried the terrified mathematician  
Every one of them is a splinter in my eye  
I hate the Peano Space and the Koch Curve  
I fear the Cantor Ternary Set  
And the Sierpinski Gasket makes me want to cry  
And a million miles away a butterfly flapped its wings  
On a cold November day a man named Benoit Mandelbrot was  
born

His disdain for pure mathematics and his unique geometrical  
insights  
Left him well equipped to face those demons down  
He saw that infinite complexity could be described by simple  
rules  
He used his giant brain to turn the game around  
And he looked below the storm and saw a vision in his head  
A bulbous pointy form  
He picked his pencil up and he wrote his secret down

Take a point called Z in the complex plane  
Let  $Z_1$  be Z squared plus C  
And  $Z_2$  is  $Z_1$  squared plus C  
And  $Z_3$  is  $Z_2$  squared plus C and so on  
If the series of Z's should always stay  
Close to Z and never trend away  
That point is in the Mandelbrot Set

Mandelbrot Set! You're a Rorschach Test on fire  
You're a day-glo pterodactyl  
You're a heart-shaped box of springs and wire  
You're one badass fucking fractal  
And you're just in time to save the day  
Sweeping all our fears away  
You can change the world in a tiny way

Mandelbrot's now in heaven, inspiring us though he's dead  
Without him, what would the maths of today entail?  
He gave us order out of chaos,  
He gave us hope where there was none  
And his geometry succeeds where others fail  
If you ever lose your way, a butterfly will flap its wings  
From a million miles away, a little miracle will come to take  
you home...

RIP Benoit Mandelbrot, November 20<sup>th</sup> 1924 - October 14<sup>th</sup> 2010

Zethar

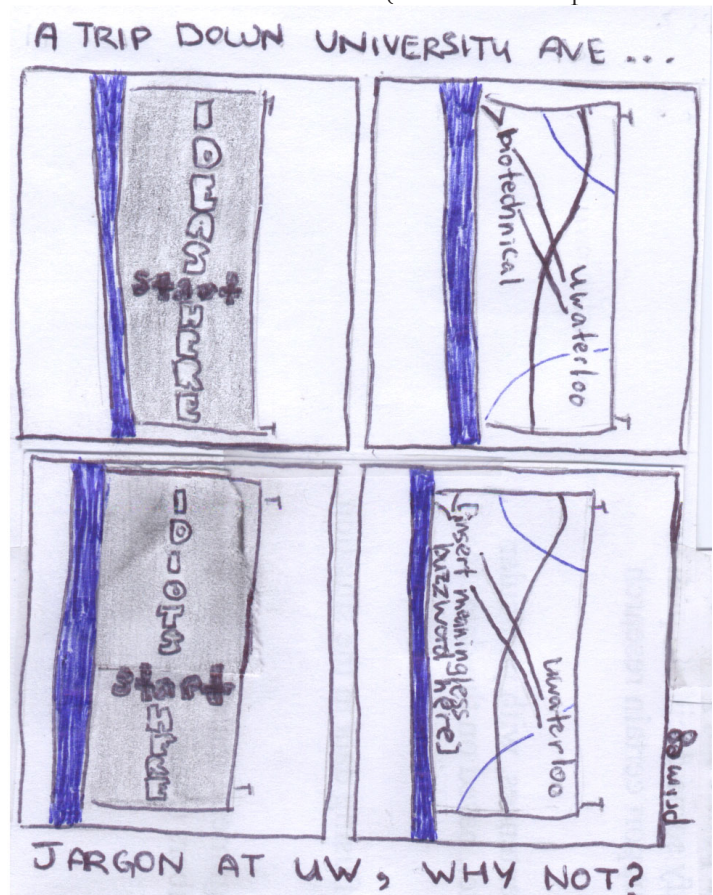
## The n most Sexually Tilted Lines in Team Fortress 2

Because it had to be done.

1. “Come on, doc, do it!”
2. “Domination. Look it up.”
3. “Thanks for the ride!”
4. “Here’s a schematic for ya: my ass!”
5. “Eeeerectin’ a dispenser!”
6. “I just tore you a new chimney, Smokey Joe!”
7. “Am I too violent for you, cupcake?”
8. “Don’t fret, boyo—I’ll be gentle!”
9. “Imagine if I hadn’t been drunk!”
10. “If I wasn’t the man I was I’d kiss ye!”
11. “Thankfully I already don’t remember this...”
12. “I am coming for you, again!”
13. “Get behind me, doctor!”
14. “Moist and delicious!”
15. “Take it like a man, shorty.”
16. “That catch your eye, son?”
17. “That’s what it was made for!”
18. “I’m gonna beat you like a rented mule, boy.”
19. “I’m runnin’ outta places to put holes in you.”
20. “I’m not done yet, mate, not by a long shot.”
21. “I reckon ou’re gonna get real used to looking up at me.”
22. “That’s how we do it in the bush!”
23. “Sorry to pop in unannounced!”
24. “Oh dear, I’ve made quite a mess.”

ieatyourSANDVICH

(with a little help from tf2wiki)





## Until It's Done

### Kirby's Epic Yarn Review

Until It's Done is a segment created by a group of friends. Basically, we decided to play games nonstop until we have completed them. In the first segment, we started with one of the greatest videogame characters ever: Kirby. Thus, the Until It's Done review of *Kirby's Epic Yarn*.

We ended up playing the game for around 7-8 hours nonstop. We did not complete 100% of the game, but we finished the main story mode. The game consisted of three different teams of two, since you can play this game in co-op.

The team with the best teamwork did something the others didn't: actually work together - and work together well, in fact. *Kirby's Epic Yarn* has no lives; instead, when you die or take damage, all the collectible gems you picked up end up flying out of you (sort of like Sonic's rings). Oddly enough, for a game where you can't die, we were motivated to get a gold medal in each level by collecting a large number of gems. This team got odd scores, ranging from bronze to gold (second worst to best). They had an odd attraction to spikes...something about trying to recollect lost gems from spikes, only to find themselves still walking on spikes.

Another team had bad teamwork. They tried to work as a team; however, they were continuously thwarted by their own teammate. They also had the most boss fights. Also one of the teammates (whose name has been redacted for privacy) decided, after burning for around 30 seconds straight, that fire hurts. They received either no medal, or gold.

The last team wasn't a team, but just people who found themselves playing together. Basically, it was a free for all, and this was my team. Their strategy consisted of randomly throwing each other into danger, leaving each other behind, or trying to run in two different directions to dodge (locking the screen, causing both of us to get hit anyways). This "team" received silver to gold. How we did the best, I will never know.

## Kirby's Epic Yarn and YOU!

### *The n things I learned from KEY*

So this past weekend, a few of us got together to power through Kirby's Epic Yarn in one day. Meow. Here are a few things I learned while playing that game:

- Standing in FIRE is bad
- Standing in SPIKES is bad
- Standing in FLAMING SPIKES is double bad
- I suck at all side-scrolling driving games, whether I am controlling a jeep or a snowboard
- Trains are fucking badass
- Firetrucks are equally badass
- In some situations, fisting your enemies is not only appropriate, but encouraged
- There is a significant difference between being ambushed and completely ambushed: only the latter can defeat Meta Knight.

theKIRBY

As noted before, the game has no lives or health. This is made up through collectibles, which, oddly enough, caused great difficulty. We were driven to try and get 100% in each level, which, oddly enough, provided about the same amount of difficulty as lives would have.

Kirby lost his ability to absorb enemies and use their abilities, and instead uses part of his body (which is made of yarn) as a whip to roll enemies into balls and throw them at opponents. Also, he can transform into various objects - some of them more epic than others - although they are all equally awesome and adorable. Prince Fluff, the co-op character in the game, also has the same abilities. Boss fights were fun and memorable, especially the last fight. They were challenging (remember, fire hurts), and again, even though you couldn't die, it was a trial to get platinum medals on them. The gameplay, in short, was solid and fun. It provided difficulty to hardcore players, but was simple enough for novice players to pick up and play.

The game has a weird, hilariously narrated story. Not meant to be taken seriously, it perfectly followed the style of the Kirby series, playing jokes on itself. I don't want to spoil the "story", since Kirby has never been all about stories, but it's enjoyable to listen to and it doesn't feel like something slapped on to explain why the game is as it is.

My favourite part of *Kirby's Epic Yarn* was the final world, where they remixed many of the older Kirby music. This made my heart leap for joy.

Overall, the game is a buy, even for something as short as this. The question then is whether you prefer a short, high quality game to a longer game. If you want quality, then definitely pick up *Kirby's Epic Yarn* for the Nintendo Wii.

MustardMap

## Kirby's Epic Yarn: The Review

### *A Revised and Moderated version*

SPIKES SPIKES SPIKES SPIKES SPIKES SPIKES OH GOD THOSE SPIKES ARE EVERYWHERE HOLY SHIT WHY ARE THERE SPIKES ON THAT MUSHROOM THAT CANNON TOTALLY JUST BLASTED US INTO MORE SPIKES SPIKES GET THOSE SPIKES AWAY FROM ME I CAN'T STAND THOSE SPIKES!

Not D.S.

## Review: Double Down

### *It's not what you think*

Last week I heard a lot of complaints regarding the lack of double down reviews. "5 is not enough" they said. So, here is another!

Double down is when you request 1 card after the first two cards are dealt to you. You can double down for amount equal to your original bet or for more less. You can never double for more than your original bet.

The rule to remember when you double down is that you want to win money. If you are unsure of it don't do it or double for less. Watch the table see what cards are out and finally, GOOD LUCK!

Blackjack, NOM



WATSFIC & FEDERATION OF STUDENTS PRESENTS

# 2010 SCIENCE FICTION & FANTASY writing Contest

THE GENRE **MUST** BE  
SCIENCE FICTION OR FANTASY.  
**RULES** LOCATED AT  
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**SUBMISSIONS WILL BE ACCEPTED UNTIL  
FRIDAY, NOVEMBER 26, 2010  
AT 11:59:59 PM**

*or - Get your submissions in before the  
last second's squeezed out of the life  
of the 26th day of November.*

## 7500 MAXIMUM WORD LIMIT PRIZES TO TOP 3 STORES!

All submissions must be mailed to [watsfic.writing.contest@gmail.com](mailto:watsfic.writing.contest@gmail.com)  
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Please include your full name and contact information.  
Winners will be announced on December 6, 2010.

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Location of events will be posted online and in our mailing list.  
We levy a membership fee of \$4 per term or \$40 per year, most of our events are open to non-members although we ask that people join if they participate in the club frequently.

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## The Madman

He is the madman who sits at the computer  
 He calls out his voice and says fair suiter  
 I need here a program to solve this here problem  
 It needs to work fast for my friend the goblin

He has all this data I need to construct  
 Organize to structures this thing I must  
 I will work on it hard and contemplate  
 For this is a great problem I won't debate

And yet even now the solution eludes  
 I'm lost in the darkness I can't protrude  
 Ask for help of others, of course not  
 For the day it beats me, I'd sooner be shot

I must enter this logic, figure it out  
 There must be a way, \*sigh\* I need to shout.  
 I've been here for weeks and it troubles me still  
 I must keep on going or I'll end up like Bill

He gave up once, said it was impossible  
 But I know better, the solution is plausible  
 I must work at it forever in a day  
 Thoughts about sanity? Well, they're at bay

Everything's fine, I just must keep working  
 Where is the answer, I know it is lurking  
 You can't hide from me you silly bum  
 Lucky for you I can't type with my thumb

I swear to god I need a magnifying glass  
 For you are a pain right in the last  
 Day of everywhere I look  
 I can't even bring myself to open a book

There isn't time, it's been six months God!  
 I can't keep on going, must lose this facade  
 There is no answer, it can't be  
 Wait there it is! Calling to me!

If only I could taste it, just for a second  
 Life would make sense, this I must beckon  
 Aloud to all, I need this clarity  
 Only then can I sooth insanity

How can we live in world that allows  
 Puzzles like this to reign around  
 It can't be explained, but that doesn't make sense  
 All things have solutions, from rational mens

Now what's this, a quick in the scheme  
 This is an avenue I've yet to have seen  
 I follow to closely, look around each corner  
 For in any one could be the foreigner

I need to know how this happened to me  
 In my basement alas I can't see  
 There has yet to be a conundrum that's stumped  
 Me in my best, a programmer dumped

The answer must hate me otherwise why  
 Would it leave me here high and dry  
 All I want are the pieces together  
 That final image, the puzzle whether

It takes all my life I won't give up  
 I need this to make my life not amuck  
 I can't get to sleep, nightly I cry  
 For nothing makes sense, I must say goodbye

I tried to leave, I ran away  
 But it dragged me back to my dismay  
 What can a man do who can't give up  
 There is no rehab, this does just suck

I'll just sit here at night, me and my mind  
 We talk everyday now, that's what I find  
 Keeps me not spazzing out  
 But I'm not seeing others, that's what it's about

If I can't have her, no one can!  
 I will bury this thing right in the sand  
 It dies with me here in the night  
 For I'm not myself, I've lost that right

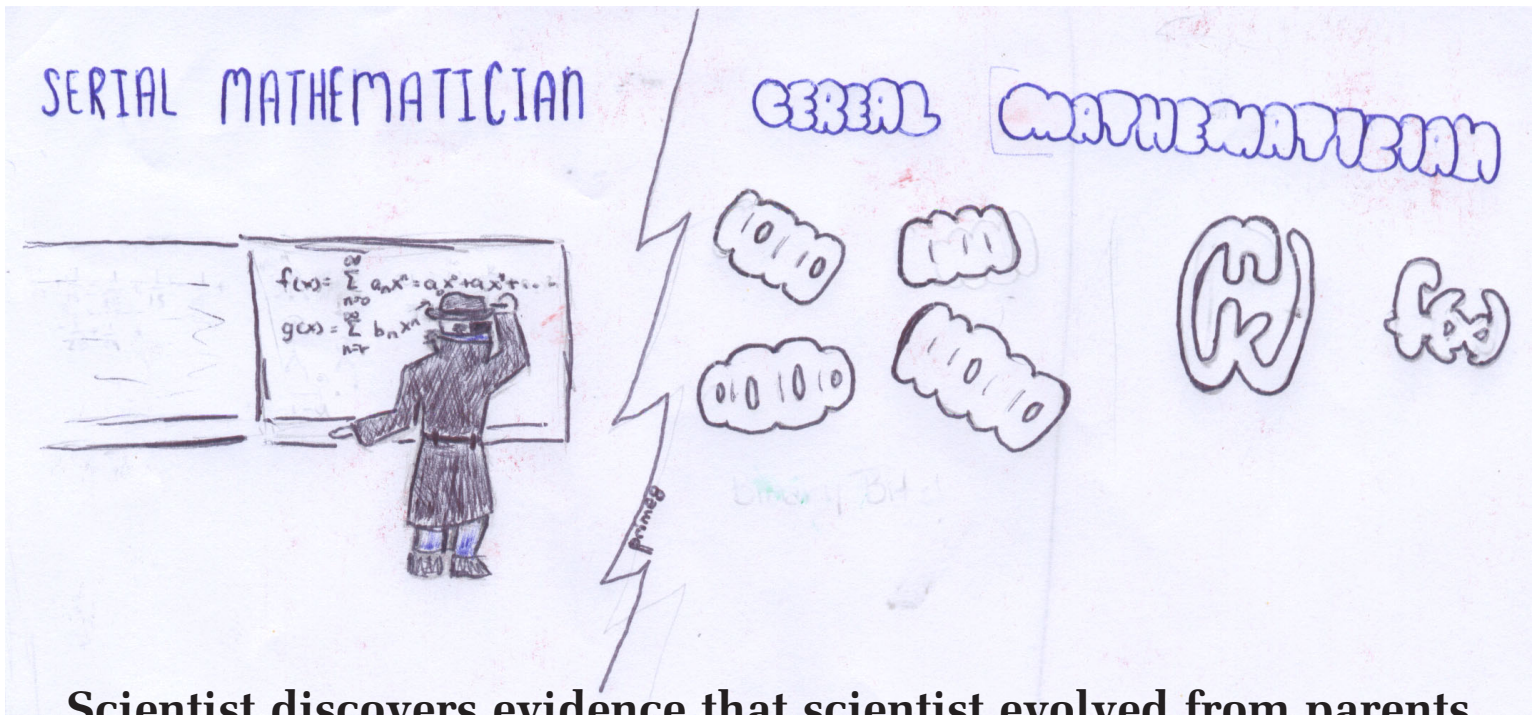
To the machine it now has me  
 Givith your soul, that's all you see  
 And now I have done it, I'm happier still  
 For one day she'll give me my longing thrill.

## Fork Bomb

```
:0{ :|:& }::
```

The classic fork bomb. It may be easier to understand if it is broken into several pieces. The first piece is the ':()' which simply declares a function named ':'. The body of the function is the bit between the curly brackets, or ':|:&'. What this does is simply starts an instance of the function and pipes it into another instance of the function, then puts the whole thing into the background so it can't be stopped by killing the parent process. The last bit is simply a semicolon ending the line, followed by a colon (the name of our function) which invokes the function, starting the fork bomb. As you can see, each invocation creates two more invocations of itself, for an exponential increase in the number of processes running, until things start crashing because of a lack of memory or process numbers. The best cure for this is to reboot the machine.





## Scientist discovers evidence that scientist evolved from parents

Even the most commonly believed myths can be disproved over time. This was the case last week when indisputable evidence against Dr. Elizabeth van Doeber's theories on evolution were contradicted. van Doeber's theory stated that "I am in no way related to my parents" which was also the topic of her graduate thesis. Evidence related to behavioural patterns as well as physical appearance was presented to show that this apple fell very far from the tree.

van Doeber's colleagues had tested her theory in an experiment involving a department barbecue in which her parents were in attendance. Each researcher involved in the experiment spent a minimum of ten minutes of exposure to the van Doeber parents and spent times assessing Dr. van Doeber's assertions and analysis.

"When first comparing [Dr. van Doeber] to her parents, it seemed highly unlikely that someone as sophisticated as [van Doeber] could hold any association with people who superstitiously distrust the roaming patterns of black cats" say Dr. Vincenzi, a long-term researcher who has worked with van Doeber. "[Dr. van

Doeber] has been spending the majority of her academic career trying to show her independent evolutionary growth from her parents, but there seems to be too much contradictory evidence."

In fact, earlier in the year Vincenzi had released a report making several comparisons between van Doeber and her emotionally controlling mother. "We found several traits in similar like how she has to arrange where every beaker and chemical compound belongs." Even less subtle traits like sharing her father's obnoxious laugh and looking like pictures of her mother did twenty-five years prior to present are being used against van Doeber's theory.

Her reputation in the academic community is also coming under scrutiny. A critical report on her dissertation and thesis shows many logical fallacies, improper methodologies and annoying anecdotes about how [van Doeber] dreamed about meeting her real parents in a science lab. Since publishing the paper on her evolution, van Doeber has since moved to other more interesting topics such as showing the her little sister evolved from a little turd into a full-grown leech-bitch hybrid.

## Stalkerbook Introduces... Friendship Pages!

The Hee Ho

*Now you can see everything your ex is doing with his/her new significant other - all in one place!*

If you haven't seen it already, Facebook has taken tagged photos to a whole new level with Friendship Pages. Friendship Pages exist for you and each of your friends, as well as between each pair of your friends. You can see photos where both parties are tagged, as well as wall posts, comments, and even events shared by both friends.

For those of us who limit Facebook friends to real-life friends that we trust, this new feature will show your friendship in a whole new way. In particular, it tells you whether you spend too much time together IRL and need to spend more time interacting online on Facebook.

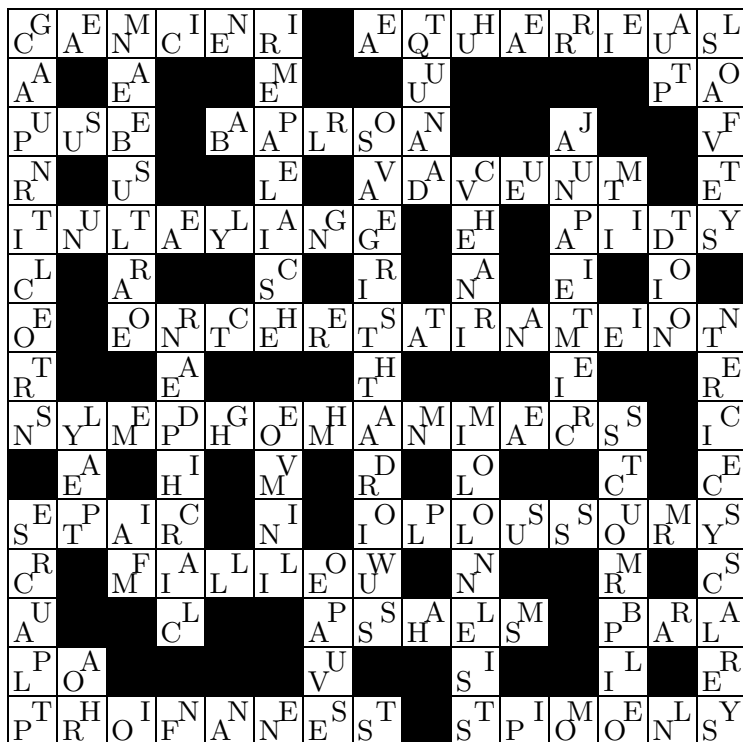
For the rest of us, who use Facebook to keep in touch with acquaintances and ex-significant-others and parents and siblings and everyone except our closest friends, these Friendship Pages

are a nightmare. Imagine every cute girl you meet browsing through all the cheesy babbling and heated arguments you've had on Facebook with past exes. Imagine your parents discovering the photos on Facebook of you with the boyfriend/girlfriend they're not supposed to know about. Suddenly you have to review your 1,186 facebook friends and make sure they're grouped properly so that the socially-inept dude from high school doesn't see stuff only meant for your cool new friends at university.

The scary thought is that this information was all available before — all the friendship page does is it cross-references different data and puts it all on one page. A few hours of hacking and a few days making the code production-ready, and yet another scary social-norm-destroying tool is unleashed upon the world.

Use at your own risk.

# Last Week's Solutions



## Quick Clues

### Across

1. Flowering plants in the olive family
4. Engines for extracting energy from flow
8. Wrath
9. Despot lizards
10. **INCEPTION**
11. Summon
12. Consumed
15. Element named after Greek Rainbow Goddess
16. Marauders
17. Giant tart
19. Uproar, outcry
21. Contemplate
23. Human supremacy
24. Shelter from wind
25. Equinox opposite
26. Guaranteed permanent employment

### Down

1. Recurring musical theme for a person
2. Position held by highest ranking diplomat
3. Emblem
4. Succinct
5. Admonish
6. Rebellion, mutiny
7. Convulsion
12. Coulomb per sec
13. Before

14. Banish
18. Sordid
20. Regular quadrilaterals
21. Adjust ahead of time
22. Squalls

## Cryptic Clues

### Rolling

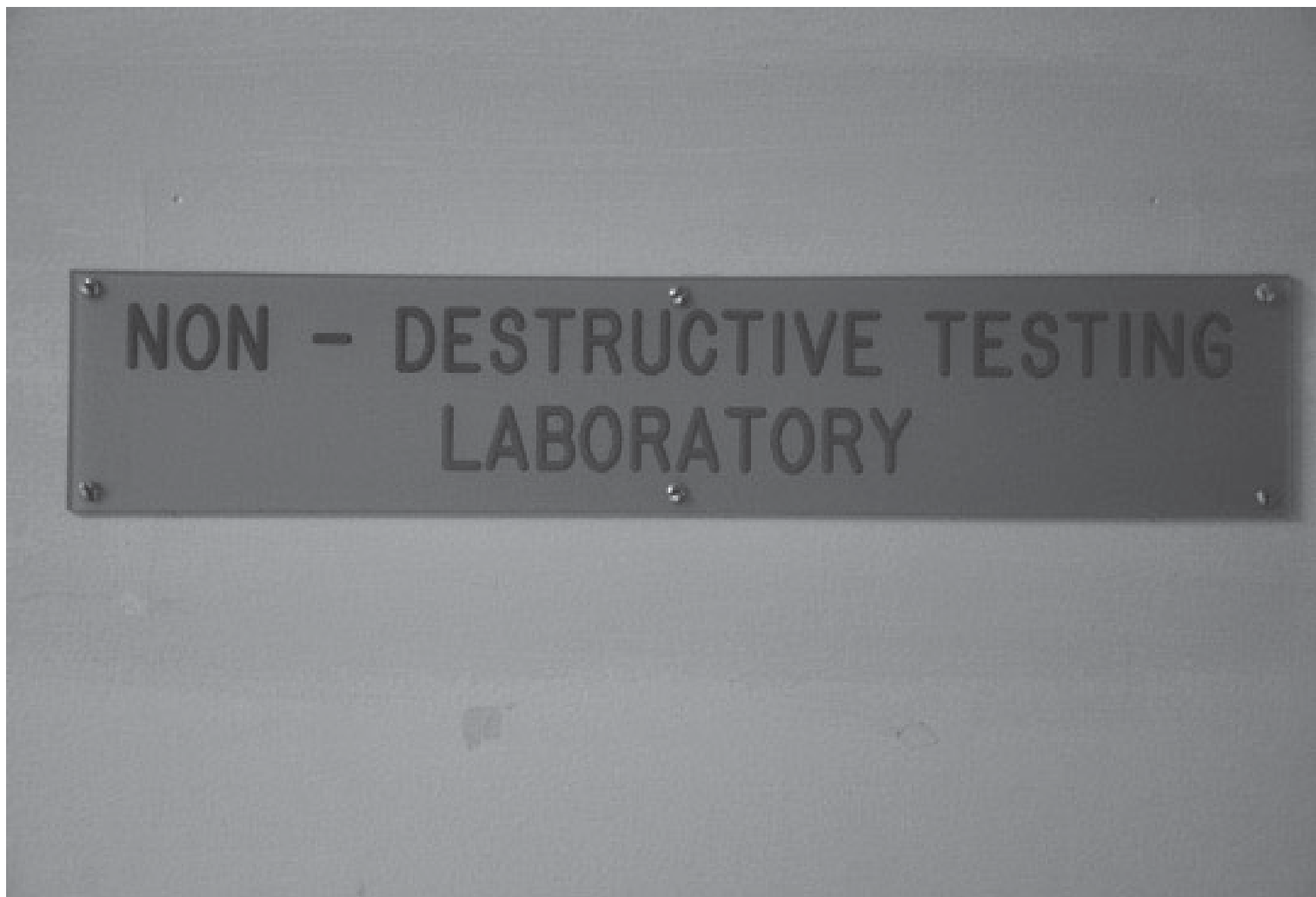
1. Odd heir acts upset without time break (6)
4. Broken web before westward soils are ear-piercing (8)
8. Make fast a draw (3)
9. Second iterations of summary before one odd trull carts iron nose (15)
10. Short physics or chemistry runs back after Shakespearian King: I hear words (6)
11. Probe begins descent before detailed pixies (5)
12. Energy of Sun God lasts an epoch (3)
15. Encases weapon in jumbled cats heat headless feathers (7)
16. Plummit endlessly before standard measurement of the otherworldly minus heart of steel forge (7)
17. Large open terrain, initially! (3)
19. Harper engulfs increase without first elated glass triangle (5)
21. International throw enters curtailed festival (6)
23. Rebutting a declaration, enumerator holds about goal (15)
24. Regret westward continent without headless optimism (3)
25. Spellbook collection of tricks without jumbled domesticated mistake after dark (8)
26. Television genre runs left, 'tis a shortened commercial domain (6)

### Plummeting

1. Timepiece unlimits phantom containing a litre within drunken sugar (9)
2. Young child of northward Hunnic Emperor, without length, twists rain before last three of fourteen down (15)
3. Followers of Zeno, even I sat to fit cash (6)
4. Second shortly before you take potassium from songbird beyond religious authority SECULAR (7)
5. See northern dragon lost its tail below reply (6)
6. Removes complex from complex ball, so doesn't start nuclear reaction after sick sounds like intended disappointment (15)
7. Long lock removes fat-soluble vitamin from sapling before secret service (5)
12. Long slippery fish, odd even before length (3)
13. Not the front end of a boat of lashed timber! (3)
14. Deductive argument breaks slimy logs (9)
18. Endless heartless double-reeded instrument contains messy unfinished curse arcane (7)
20. Crazy inspiration removes tea from lighted mixture of cereals (6)
21. Initially give rearrangement after value enters silent tombs (6)
22. Mastering sounds like high card drunken rummy (5)







## *mathNEWS* Caption Contest!!!!!!!

See the picture above? Right...Right? Ok well make it funnier. Much much much funnier. Do that by writing us a witty caption for it! And if you do that (and do it better than everyone else) we promise to give you an awesome prize. The funnier the better. This will be judged by some of us Editors as well as the person who took the picture (they are just as crazy as us, we promise.)

Either throw your submission into the BLACK BOX  
OR

Email us (the editors) at  
mathnews@student.math.uwaterloo.ca with the subject  
heading: caption contest!

Last weeks winner was Michaelangelo Finistauri. Angelo, you can pick up your fabulous prize at them MathSoc office.

The Editors  
**Last Issue's  
Winner**



Winner Michaelangelo Finistauri: **"Beat-nick challenges liberal arts major to interpretative dance contest. There were no survivors."**

Runner-up Graham Pinhey: **"Mafia vs Superheros: The Next Big Meme"**