

math NEWS

**Math 3 Ground Breaking Ceremony
coincides with UW's Grave Robbing Day**



***Volume 111, Issue 3
Friday, October 23rd, 2009***



lookAHEAD**mathNEWS**

October 23	Issue 3 digs a grave
November 2	Production Night #4
	Meet at 6:30 in MathSoc
November 6	Issue 4 buries you in said grave

MathSoc

October 26-29	Halloween Candygrams
November 2-3	Winter Executive Elections
November 12	Charity Ball

FedS

October 31	All Ages Bomber Night
October 31	19+ Fed Hall Night

Math Faculty

Questions about these? See an advisor!	
October 26	Spring pre-enrollment begins
October 30	Last day for 50% tuition refund
November 6	Last day to receive a WD

CECS

October 30	First rankings open
November 2	First match results released
November 4	Continuous round begins

Miscellaneous

October 24	United Nations Day
October 25	Day of the Romanian Army
October 28	Ochi Day (No Day) in Greece
November 2	Day of the Dead in Mexico

PMAMC&OC Notices**SASMS**

Every term, the Pure Mathematics, Applied Mathematics, Combinatorics & Optimization Club (henceforth referred to as PMC) hosts a night of student-run seminars, the Short Attention Span Math Seminars (SASMS for short). Students give 25-minute seminars on interesting mathematical subjects to their peers (i.e. you). Talks should be aimed towards a general audience, accessible to all undergraduate mathematics students. Dinner and refreshments will be provided. If you would like to find out more and/or sign up to give a talk, check out our website at <http://pmclub.uwaterloo.ca>, come to our club office at MC3033, or check out our PMC SASMS Facebook event. The event will be held on Wednesday, November 4, from 4:30PM to 11:00PM in a location TBA.

It's Over 9000!

On Wednesday, November 11, the PMC will be hosting the 3rd annual "It's Over 9000!" mathematics competition. Contestants will be given a mathematical expression/question and must determine whether or not the value/answer is over 9000! (The ! is purely for excitement, not to mean the factorial unary operator). There is food to be eaten, prizes to be won, and fun to be had. Partner up with a friend, try it out solo, or just come out to watch the matchups of students vs. professors. To find out more, check out our website at <http://pmclub.uwaterloo.ca>, come to our club office at MC3033, or check out our PMC It's Over 9000! Facebook event.

PMC

mastHEAD

Howdy concerned readers!

Thank you for all of the complaints, love letters and death threats. I thoroughly enjoyed reading them. In fact, I enjoyed them so much that I am going to attempt to increase their volume once again!

I am of the belief that the most surefire way to increase student response is to talk about sex and sexes, thinly veiled occasionally by mathematics. (At least this gets me the occasional love letter, rather than purely hate mail.)

To all the women reading this, you probably should be paying attention in class. To all the men reading this, you probably should be attending class.

To the lesbian/gay/bisexual/etc community, I would like to applaud you for all the inclusion. I think you might be the first minority to win a world record for size of an acronym. The only bad part is aggregate membership or lack thereof. Remember, as your acronym approaches infinite length, the proportion of people you represent does not equal 1. (It converges around 0.1)

To all you hard-core fundamentalists, have fun with Hall's Marriage Theorem. Only 90% of the graph is bipartite.

mastHEAD Question: What phrase reminds you of the opposite sex?

Their Answers: Angelo (Refridgerate after opening), InsidED (Milk's favourite cookie), snippet (Double the trouble. Double the fun.), SegFault (That's what she said), *mathNEWS* Renegade (Potential recruits), monkeyspoon5 (You're disgusting!), Megaton Panda (Gotta Catch 'em All), perki (Lay's, want some?), The Other Tree (Over 9000!!!), pedoBear (Beaver), Anonymous (Best if used), CorruptED (Betcha can't eat just one), Big Mak (Play it again, Sam...), Thor (Hasta la victoria siempre!), Lich (Believe in Brother Chun and you will be granted eternal life)

ImpulsED

"It takes a fast car, baby, to lead a double life" or as my father once said "It takes a fat, bald lady, to eat a tub of rice."

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The editor(s): CorruptED, ImpulsED, InsidED

Midnight Capture the Flag

2009/10/25 23:59 MC Comfy Lounge. Definitely don't be there.

Not the Management

Execs Don't Say

Leaving poor old us to fill the gap

So, apparently this fortnight we lack any news from the Execs for varying reasons, which necessitates snarkiness and writing from us to fill you in on important MathSoc going ons. So here's our take on what various Execs are/should be telling us, and our speculation on everything else.

Will - President Guy: Will is currently MIA, Missing in Action, Monkeys in Arabia, something or other. Either way, apparently MathSoc has been lacking in his presence for a few weeks, so we've no idea what he's been up to. Various theories have been put forward: kidnapped by baboons, his kingly stature making him too Important (With a capital I!) to talk to the peasants, or secret ninja training. Apparently he's been spotted with some dirt and broken ground or some such, so perhaps mole people. Either way, Maria has been picking up some of the slack here, and we're not sure if there's any news coming for a Prez Sez.

Maria - VPAS: Maria is busy doing work, something foreign to us *mathNEWS* editors [*Says the one who is never here when I'm doing layout?* — *InsidED*]. Unfortunately, this means we can't currently get a VPAS Sez out of her, but rest assured whatever she's doing is probably doing well, because she has Kung Fu powers like that. Moving on ...

Sarah - VPF: Sarah Sez: "We're out of calculators at MathSoc!" Other than that, apparently not a whole lot of news. Go Go Gadget Lack of News!

Aaron - VPA: Also hasn't come to tell us anything. Nothing to see here, move along, Bruce Wayne isn't Batman etc. etc.

Okay, I think that covers all of the Exec. Hopefully next fortnight you'll get actual news from the actual Exec, and the baboons/ninjas/Jesus release Will from.. wherever he's been.

CorruptedED

WatSFic Sez

We're back again this week to let you know our events and happenings!

Games Day: This Saturday, October 24th, WatSFic is holding a games day starting at noon in the MC Comfy Lounge on the 3rd floor. Come out and play some fun board games!

Weekly Meeting: Come out next week on Wednesday, October 28th to our meeting and you can find out about our events and be involved in the workings of the club.

Settlers of Catan Tournament: On Sunday, November 8th, we will be hosting a Settlers tournament with prizes and fun things! Registrations are being done on Oct. 28,29 and Nov. 1,2 in the SLC Great Hall.

For any additional information, check out our website at <http://www.watsfic.uwaterloo.ca/>

The Waterloo Science Fiction Club

MathSoc Executive Elections

No acclaimed positions for once! YAY!

Elections for MathSoc Exec positions for Winter 2010 will be held on November 2-3. We will hopefully have a special Elections Edition of *mathNEWS* between now and then, so stay tuned!

InsidED

ElseWhen

25 Years Ago in mathNEWS

This week, we are looking at Volume 36, Issue 4, originally published on 19 October 1984.

InsideR

The Unwanted Ads

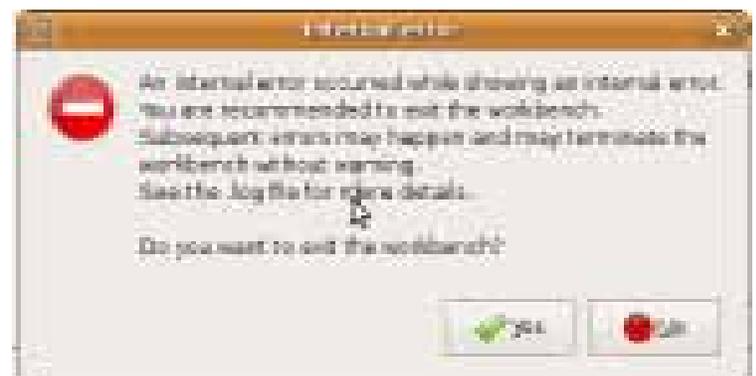
With the job market epically favouring students in '84, it was imperative that employers did what they could to make their jobs look appealing to students. Obviously, someone with a brain caught onto these tricks, and provided some (admittedly accurate) translations:

- "... and processing crucial documents" really means photocopying [sic].
- "Innovative assembling of company records ..." is deciding which side paper is to be stapled and then arranging them in alphabetic order.
- "... with flexible hours" means shift work for sure.
- "... and extensive user support" is really answering phones and telling users to hit <return>.
- "Using the coordination and manipulation of the outer limb extremities in line with advanced hardware for updating numerous databases" is really data entry.
- "Tasks will include the identification, gathering and reconciliation of information to be translated to the computerized databases" means finding ancient company records in dusty filing cabinets, putting the records in chronological order and finding out that the "data" is inconsistent and **you** must "reconcile" it.

In Other News...

- Federation Hall opens its doors on Wednesday 14 November. Toronto Harbour is providing entertainment for the dignitary gala, and student opening is the three days following.
- Orientation ran out of pink ties, and those who got a rain-check and/or bandana can get them at MathSoc.
- Next week's Annual General Meeting discusses the proposed changes to how executives are elected. Electing summer execs in November is apparently quite touchy to one class rep.
- The "New, Improved *mastHEAD*" is hand-written, for some bizarre reason.
- Some frosh is excited by his Pure Math course. God save

Eclipse Fail



7 methods to study effectively

Well, midterms are finally here, and yours truly has taken time off from his incredibly busy and thorough study session to give you this all-important list of proper study habits. Froshies, take note:

1. Do the previous years' tests. Trust me, they help.
2. Read *Imprint* before studying. The reduced brain activity resulting from reading *Imprint* lets you relax before tackling your studies.
3. Read *mathNEWS*. The increased brain activity resulting from reading *mathNEWS* will make you hyper-aware of all studied notes.
4. Eat a fish. Better yet, eat a Babbel fish. You'll do better on the language courses.
5. Remove all possible distractions from the area, including the rubber chickens. Yes, *all* of them.
6. Don't do anything the skoog recommends.
7. If all else fails, read your notes.

Big Mak

The Ground is Rising!

This just in: The Leafs suck but the season isn't over!

The Leafs at this time are a dismal 0-6-1, but remember what I said? November! It's not November yet, even. Remember last year when the Penguins were so bad in January that they fired their coach after losing to the Lowly Leafs? That's right, they went on to win the Cup in the same season after a hot streak. The Blues won a dismal 10 of their first 22 games last season and somehow managed to finish high in the standings. The Ducks were salivating when the Oilers were seemingly in the lottery in January, but had to settle for a mid-first-rounder in the Dustin Penner trade. Professional sports has one thing that no other show on TV has: unpredictability. Sure, the Leafs aren't the most talented bunch, but they are getting a damn good scorer and a real goaltender back soon (2-3 weeks for Kessel). They can at least make it interesting from here. Cheer up, and knock back some booze. Remember that no amount of worrying, caring or swearing will change how the Leafs play. You're but a spectator, so just take the slide in stride and enjoy the ride. (Or go cheer for a new team!)

FOC Applications EXTENDED

For those planning to apply for Math Orientation Director, the application deadline has been pushed back to Monday 2 November at 5pm. Nomination forms are outside of the Math-Soc office, and can be submitted to the President's mailbox.

If you have any questions about the position, please email orientat@math.uwaterloo.ca

InsidFOC

7 methods to not study effectively

Well, midterms are finally here, and everyone else around you is studying. But what's the point? You haven't studied before midterm season, so why bother studying now? But just in case you feel compelled to succumb to peer pressure and pick up a textbook, here are some things that you can do to dispel that feeling:

1. Play Super Smash Bros Brawl until 2am the day of the test. You'll be seeing Link and Captain Falcon running across the matrices.
2. Use Vista as much as possible. In fact, get Windows Update before reading your notes.
3. Fortify your room against the impending zombie invasion.
4. Bring your girl/boyfriend to study with you. You *know* you're going to get work done that way.
5. If you don't have a girl/boyfriend, go get one. That's definitely a top priority.
6. Study in your room. It's not like the laptop, games, cell phone access, and being in close proximity to your room-mates is distracting, right?
7. Don't do anything that Big Mak recommends.

skoog

The Sky is Falling!

This just in: The Leafs suck and the season is over!

In case you missed the winless start, the Leafs are now a glorious 0-6-1 on the season. For the playoffs to be viable, you need give or take 94 points. With this glorious start, they would need 93 points to make it from here on in. That'd mean a 41-23-11 record, or something tweaked from that. That sounds ridiculously impossible. Abandon ship now because the Leafs will never be good and you should just cheer for a real team like Columbus Blue Jackets. Who doesn't love BJs?

Paranoid Panda

Monday Night Torture

Welcome to first year math!

You may think this article is a tad late. Why an article introducing you to first year math at Waterloo should come in the frosh issue. I wanted all of our frosh to first experience a tradition as old as the faculty itself. The "midterm" in Waterloo first year math has a slightly unorthodox definition, where instead of midterms being located somewhere in the middle of the term, it is a non-stop weekly ritual. *[What's equally annoying is that it's a ritual that always steals my staff. Grrr... — InsidED]*

πrmaniac

Thor's CS Problem of the Fortnight

Meandering through computer science since 1827

Last Fortnight's Question: Imagine that you are the leader of a party of glorious fantasy adventurers. As a part of your job, you routinely need to make the tough decisions about how to split up the various magical items that your stalwart comrades find. Suppose you've found three magical items: a Fireburst Sword +1, a Wand of Striking, and a Shield of Hope. How many ways are there to split these items up among your party? In general, how can you find out how many ways there are to split up items? Remember: no cutting items in half!

Its Answer: This question is a relatively thin veneer over the Set Partition problem. To restate: Given a set of elements, how many ways can it be split up into subsets? For example, the set {sword, wand, shield} can be partitioned as:

```
{sword}, {wand}, {shield}
{sword}, {wand, shield}
{wand}, {sword, shield}
{shield}, {sword, wand}
{sword, wand, shield}
```

The number of partitions of a set with n elements is the n th Bell number. The 3rd Bell number is 5, so there are 5 ways to split up three magical items. These numbers can be generated via a Bell Triangle - a name, I'm told by an anonymous source, that was suggested by University of Waterloo Department of Computer Science Professor and Distinguished Scientist Jeffrey Outlaw Shallit. With a correctly created Bell Triangle, the Bell numbers starting from zero go down the left-hand side. To generate the Bell Triangle, put the number one on the first row of the page. Then, repeat the following steps: Start a new row. Put the rightmost number in the previous row at the start of the page. Then write each number of the row by summing up the number to the left of it and the number diagonally up and left of it:

```
-----
1
1 2
-----
1
1 2
2 3 5
-----
1
1 2
2 3 5
5 7 10 15
-----
```

As we can see, $B_0=1$, $B_1=1$, $B_2=2$, and $B_3=5$, so there are 5 ways to split up the items.

This Fortnight's Question: A famous trivia game is the "Kevin Bacon Game". Its premise is that any actor in the world can be linked through film roles to Kevin Bacon. In the game, players start with an actor and try and create links through movie associations. For example: Val Kilmer was in *Top Gun* with Tom Cruise, and Tom Cruise was in *A Few Good Men* with Kevin Bacon. Reaching Bacon represents the end of the chain. Given a movie database containing actors and the movies they starred in, how would you check whether or not the game's premise holds for every actor in the database?

Thor

The Hee Ho's Half-Assed Video Game Review

Demon's Souls

The Hee Ho heere ho! Instead of introducing a vague band that you've likely never heard of, I'm going to talk about a video game and how my life is now nothing but servitude towards it.

Demon's Souls is a crazy game published by Atlus and developed by From Software, companies that dedicate their existence to making gaming addictive and painfully hard, yet amazingly fun! The plot of the game is negligible: you are in a world based off of medieval Europe. Some random king decided to be a jerk-face and awaken an ancient evil that killed the majority of everything. As it stands, humans have had their souls sucked from their bodies (;D) and go crazy and kill things. Plus there are demons. Anyway, you are a generic adventurer who sets themselves out to save the world. Then you die.

This is an odd game in that you will spend most of the time dead, but not like a zombie, as you have a soul form. You adventure to stop the wrongs and whatever. Anyway, simplifying the gameplay immensely: it's a 3rd person action RPG which emphasizes strategy over skill. You can power level, but it won't help you much.

When you're dead you're stronger, but when you're alive you can get souls from other people to assist you online! There are other groovier things: you can leave a note for people warning them about a trap, ambush or tell them about an enemy's weakness. Also, when you die, you leave a bloodstain that other people can touch to see what caused your death, helping them to avoid it.

On the subject of dying, you're going to be doing a lot of it. Killing things nets you their souls, which lets you gain character stats, buy items, learn spells, mop the floors, anything! When you die, you lose them all. (Until you find your bloodstain and you pick up the souls from the last life.)

You get to build your character however you want to! You can pick a class at the beginning of the game, but it doesn't mean anything after a few hours. You can grow how you want, pick whatever weapons you want, the heaviness of your armour; everything is your choice! You can choose to carry the huge sword and do a lot of damage, but then you're slow since your sword is HUGE (;D). This game has the perfect balance of letting people play however they want without balance issues.

The game is fun, frustrating and an excellent change from the norm of games out these days. I strongly recommend playing it, under the assumption that you have the patience to withstand dying every half hour.

The Hee Ho

*ultra*CLASSIFIEDS

MISSING: One President. Last seen digging his grave on Math 3 site. Call x36355 if seen.

WANTED: Your midterms for the MathSoc Exam Bank. Bring marked paper to MathSoc.

LOST: You just lost the game.

Interesting Math

Lottery Paradox

We're going to play a little game. I will present to you two sets of lotteries, with each set containing a choice between two lotteries, say *A* and *B*. The prizes and associated chances are listed below in the tables. Let us begin with set 1. *Quickly* look over the information and make a decision about which you would rather, 1A or 1B. I say quickly because I already know you can calculate expectation easily, and that ruins the fun of this entire article.

Set 1A	
Prize	Chance
\$1,000,000	100%

Set 1B	
Prize	Chance
\$1,000,000	89%
\$0	1%
\$5,000,000	10%

Done? Alright, here's set 2. Again, *quickly* look over the information and make a decision about which you would rather, 2A or 2B.

Set 2A	
Prize	Chance
\$0	89%
\$1,000,000	11%

Set 2B	
Prize	Chance
\$0	90%
\$5,000,000	10%

Did you choose 1A in the first set and 2B in the second set? If so, you're with the majority (or so I am told). To be honest, I would choose these as well. However, we can show this is inconsistent with expected utility theory. Notice in both sets, both lotteries give the same outcome 89% of the time: \$1,000,000 for set 1 and \$0 for set 2. But since these are the same between the choices *A* and *B*, they should not affect the decision between them. Now, both gambles offer the same odds and prizes: 11% chance of \$1,000,000 versus 1% chance of \$0 and 10% chance of \$5,000,000. Thus, only choosing both 1A and 2A, or both 1B and 2B is consistent. It may help to rewrite the tables as shown below to understand the previous argument:

Set 1A	
Prize	Chance
\$1,000,000	89%
\$1,000,000	1%
\$1,000,000	10%

Set 1B	
Prize	Chance
\$1,000,000	89%
\$0	1%
\$5,000,000	10%

Set 2A	
Prize	Chance
\$0	89%
\$1,000,000	1%
\$1,000,000	10%

Set 2B	
Prize	Chance
\$0	89%
\$0	1%
\$5,000,000	10%

So what's going on? Most people (myself included) will choose 1A since I can be guaranteed a decent amount of money. True, the overall expectation in 1B is higher and I only have a 1% chance of getting less — but there is that chance. I feel I would regret my decision for the rest of my life in the case I choose 1B and ended up with nothing, when a cool million was literally guaranteed otherwise. This is known as risk aversion — I wish to avoid the risk of losing potential value. For example, if I looked deeper than the monetary value of the outcomes, I might assign some utility to each prize, and I may assign a negative value for getting 0, or simply a high positive value for an assured gain. In the second case, there is only a 1% increase in the chance of receiving nothing, compared to 89%, while the rewards are quite substantial at an extra \$4 million, and thus I would choose 2B. So should we really speak of utilities rather than monetary gains, as this might incorporate some preferences? An interesting result is that we can formally show, even in the realm of utilities, choosing 1A and 2B is inconsistent in some sense. Try it out: let $U(n)$ be our utility associated with a prize of n dollars, then complete a calculation that follows our heuristic argument earlier. I suppose the moral of the story is that most of us naturally updates our utility dependent on other information; the economist Allais presented this paradox as a counterexample to what's known as the independence axiom. There, now you can go amaze trick-or-treaters with this tidbit

**My problem of the issue is on
Page 7.**

Interesting things to do around campus

So you're bored again. Having exhausted/ignored the suggestions in the last issue of *mathNEWS*, you want more suggestions on how to spend your time. Well here it is, the second installment of Interesting things to do around campus

- Drop a superball down the staircase in DPL from the 10th floor. If anyone questions you, claim you're doing a physics experiment.
- Read a *mathNEWS* issue from 2007. There's a stock of them outside the Math Coffee and Donut shop. (Thou shalt not attempt to use thy WatCard!)
- Go fishing in the pond outside the SLC. Bonus points for spearfishing.
- Post XKCD comics in arts buildings.
- Put things into those circular holes on the edges of the floors in DC, then sort them by various characteristics. Bonus points if you can get someone to guess at which sort algorithm you're using. Negative points if it's bogo sort.
- Play the floor tiles in RCH. There's a section of floor tiles outside room 306 that sounds slightly different than the surrounding ones. (I'm not making a map of where the floor tiles sound different everywhere on campus, honestly!)
- Build a tree fort, or get an engineering student to build one for you. Bonus points if it has running water, electricity, and wireless internet.
- Walk into a random exam and write it.

Crap, exams! I totally forgot! Got to run!

The Other Tree

of utility theory — math can surely be scary at times.

Vince's problem of the issue

In preparing a review package for calculus III, I have stumbled upon many quirky questions. Suppose the limit of $f(x, y) : \mathbb{R}^2 \rightarrow \mathbb{R}$ exists as (x, y) approaches $(0, 0)$ along every straight line, and agrees. Must the (2-dimensional) limit of f exist as (x, y) approaches $(0, 0)$? Ok, this is more of a warm-up, as I'm sure many have seen this before. Here's the actual question: Suppose the limit of f exists as (x, y) approaches $(0, 0)$ along every smooth curve (which includes all straight lines, notice), and agrees. Must the (2-dimensional) limit of f exist as (x, y) approaches $(0, 0)$?

Vince Chan

v2chan@math.uwaterloo.ca

Panda's Pokémon Pilgrimage

The part of the game where I beat women

Recap: I'm raising a team without cheats to take on the Pokémon Stadium 2 challenge. A damn good team, too. Here goes!

So due to an unfortunate incident, I lost my previous save, so I did it again. Identically to the same place, even! Running through the rock cave was a breeze with all the rocks falling to Bayleef (yup, it is one now!), and Pidgeotto kicked the crap out of the Azlea gym leader Buggy. I hear Buggy's a girl too, but damn, was she butch. I stayed around Azlea a bit in the Slowpoke well, sifting through tens of Slowpokes. One after another, they fail me until finally I found one that was incredibly well-rounded. With a 10-15 DV in every single stat, I ended up keeping that one, calling him "Passable". After catching the Slowpoke, I was thinking about movesets, since Slowbros made decent walls, but it requires Thunder Wave and Counter for its standard. I could always make it a Cursebro since it already came with it, but we'll see how the rest of the team shapes up.

After moving on from Azlea, I made my way to Goldenrod, and got the regular stuff done. Whitney was a pushover, with only 3 pokemon they were ridiculously powered (26, 21 and 11 respectively). I was trying to give Slowpoke some EXP by cursing, but Clefairy mimic'd the curse, then used it, then metronomed a baton pass to Miltank. Thank god for Reflect and Razor Leaf's criticals. Dodged a real bullet from that. After beating my second woman in two gyms, I fast-tracked to Ecruteak to meet Bill. I'm wondering if Umbreon would make a useful pokemon here, though its purpose would be very similar to a Cursebro, perhaps? Umbreon is incredibly cute though, hmm.

Eevee was insanely difficult to obtain as a female. I had to reset the game a good 30 times before getting one. Here's hoping the Snubbull hunting is going to be easier. (Snubbull learns Charm which is passed to Eevee via breeding). One pokémon I want to get is one of the two bovines: Tauros or Miltank. I personally prefer Tauros, and I'm thinking physical sweeper (underused). That said, it might make Snorlax hard to fit in. What do you think?

With some time to kill in Ecruteak, I did the easy challenge to get Surf by beating each of the kimono girls on stage to the delight of the businessman who rewarded me. In retrospect, that's kinda creepy, isn't it?

At the end of this women-beating playthrough, I have the following:

- Slowpoke (Passable) Lv 21: Tackle, Curse, Confusion, Surf
- Pidgeotto (Moooooo) Lv 27: Gust, Whirlwind, Sand Attack, Quick Attack
- Bayleef (Krudd) Lv 26: Tackle, Razor Leaf, Reflect, Synthesis

For next week, I'm hoping to catch a good Tauros to use (Speed, Attack, HP in that order of need) and some inspiration on the rest of the team. Suggestions? Comments? Drop them in the BLACK BOX!

Pokétrainer Panda

PLEASE DO NOT PUBLISH!!!

Man our filler is getting lame...

PUBLISH THIS FILLER!!!

Man our filler is awesome...

Get to Know your Editors!

This Week: Kitten, The mathNEWS Beaver - BeaverED

Sometimes, we editors don't feel the love. We work hard to bring you *mathNEWS* goodness, and in our heads we feel we should be showered with praise and love. In general we just get our hats stolen and punches for too much content of one type or another (or is that just me...) Either way, to add a human face to the editing team, I'm going to spotlight an editor this week. A hardworking, wonderful soul who works tirelessly to make *mathNEWS* as awesome as possible. Yep, I'm not talking about those lazy slackers like CorruptED or InsidED or ImpulsED... I'm talking about... KITTEN, THE *mathNEWS* BEAVER!

Vital Stats

Species: Beaver

Height: About an index finger and a half. Couple of inches or so I guess?

Weight: Light enough to be carried on one's shoulder for extended periods of time

Student Since: Judging from her frosh tie, 2005. She's rather quiet about the whole affair.

Expertise: Gnawing wood, making wood-related puns, smacking other editors with tail, being awesome

Weaknesses: Being named properly, not being a stuffed animal, leaving the *mathNEWS* office on a regular basis, piano

Surprising Abilities: Opera singing, battling supervillians, statistics

Favourite foods: Wood.

Least favourite Foods: Zombie flesh

Quotations: Grrrr *gnawing sounds *

Interesting Facts:

- Back a couple years ago, there was some beaver killing on campus. Kitten is the only survivor.
- It's the only *mathNEWS* editor known to have survived a grue attack. We're not sure if Angelo counts, since he's actually an amalgam of all the bitterness of the students taken solid form.
- The only reason Imprint exists is so that Kitten has something to use for the washroom. (Just to clarify, we're not talking reading material.)
- Kitten is the Pirate King of the Caribbean
- Kitten has laser beam eyes, which she uses on engineers
- No matter how prepared Batman is, he cannot beat Kitten
- The last time Kanye interrupted her, she gnawed his leg.
- She just lost the game
- She is here just for the pizza

Well, that's all we can think of for now. Come back next fortnight, when we might cover another editor! If we're not lazy or having less writer's block! Editor... AWAY! *WHOOSH*

CorruptED

Procrastination

*Hard work often pays off after time,
but laziness always pays off now.*

Cold Turkey leaves students grey hound

This week an alumnus dying of throat cancer decided it was finally time to stop smoking when he got a cigarette stuck in his sphincter. He was given only π years to live by his doctor who decided rational numbers are a terrible way to time. He has decided to leave his oddly coloured blood hound to the student body as a token of good will, mainly to scare away the geese.

His wife, a graduate student in Slavic Studies, had this to say, "I would approve if he didn't have to go out of his way to stop smoking. He seems to resist quitting for some reason, almost as if he was addicted or something, but that would be crazy."

When asked about the dog, this is what EDDie, one of our fantastic editors managed to comment, "THE PAIN!" I believe he was trying to emulate one of the most fantastic gymnasts of all time. Clearly, the dog who was his jaws wrapped around my leg will be an inspiration to us all. Can someone call an ambulance?

The Unlucky 7

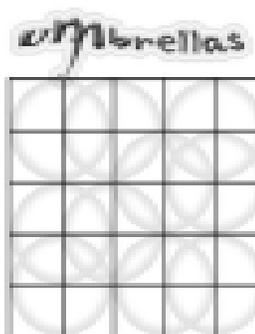
The "I Lost The Game" Game

I tend to do quite poorly at The Game. In light of this, I play the "I Lost The Game" Game, where the objective is to make as many people lose The Game as possible, with bonus points for creativity.

1. Play Dumb: "Someone told me I lost The Game. What do they mean?"
2. Rick Roll: "We're no strangers to love. You know the rules, and lost The Game."
3. Steal CorruptED's hat, and leave a note inside advising him of his loss. Bonus points if you lead him on an epic chase.
4. Pull a Kanye West: "Yo, I'm really happy for you, and Imma let you finish, but you just lost The Best Game of all time!"
5. Whisper into your significant other's ear after intercourse. Bonus points if they slap you.
6. If you are a prof, make The Game a bonus question on the midterm.
7. Write a *mathNEWS* article about losing The Game.

InsidER
Unfortunately, just lost The Game

Umbrellas courtesy euri.ca



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

1	4	6	7	7	2	5	1
5	1	8	3	2	7	7	8
3	3	6	8	7	5	3	4
7	2	3	8	7	7	2	7
8	7	6	6				
1	2	6	8				

We didn't start the flame war...

Dear *mathNEWS* Renegade: Shut up.

So Mr. Renegade, I need to ask you, why are you so upset with the software engineers? Did they kill your mother? And what is the giant issue with more editors being in software than the rest of math? Clearly they want the positions, and somehow they must have the time for it, so why not give it to them? They seem to be fit for the roles, and they have the credentials. Because the way you're talking seems like you want perfect representation of population, but this is bullshit.

I mean sure sometimes it seems a little unfair, and of course there's always the dubious selection process, but if you are simply aggravated because you believe you deserve the position, just keep working. I don't even know why you would want the position anyway, as all it seems like is a whole bunch of pain every two weeks.

In fact, if you really hate the softwares so much, I wouldn't be encouraging them to leave the positions, as all it seems to do is make their lives worse. I guess if you wanted to make it worse, though, you could encourage them to write for the Iron Warrior or Imprint. You just seem like a silly demagogue filling the paper with pointless articles, though I suppose that might be your purpose. Whichever it is, I just encourage you to stop because your mockery is boring, the death of *mathNEWS* articles.

monkeyspoon5

A bounty for monkeyspoon5

After seeing Mr. spoon's article attacking me, it has become very evident that he is a traitor to the faculty and I will not rest until I have seen his blood spilt upon the shuffling cobblestones all around campus, as well as in the sand beneath them. He clearly does not understand the plight of our entire faculty, as we let our fair paper be overrun by the besieging menace that is software.

And so I offer to you, the student body, a bounty if you can find him and drag him to the MathSoc office (MC 3038). I will grant you the highest award of the new world order, the Order of Leibnitz. It consists mainly of some pizza since I know the woes of economic famine that my fellow mathies feel.

Finally I say to you, apefork3 or whoever you are, I have a few things to say to you directly. You attempt to argue using "reason" and "logic" but you know that we put no stock in such things. Wittgenstein showed us that one can only think once he has lived, and such I shall do. I shall take back this paper and leave the current order in tatters, broken and destroyed. I tell you all, it will a Red April, to be remembered for all time! FOR ALL TIME!

The *mathNEWS* Renegade
Visionaries must undergo trial by fire
before emerging triumphant.

profQUOTES

Yes we can!

Wu, MATH 115

[talks about linkage electives] We make you take these so you can become real people when you graduate.

Morton, SE 101

I kinda wish you didn't have to do [PDEng], but nobody asked me.

Morton, SE 101

They don't give me direct access to the [Quest] database... that would have been bad.

Morton, SE 101

You get history in your computer science class, but do you get computer science in your history class?

Clarke, CS 137

'Free' in the liberated sense, not 'free' in the 'free beer' sense.

Clarke, CS 137

Student: Can we code in ignorance?

Prof: No, you're software engineers, you have to code in knowledge.

Clarke, CS 137

If we had the Star Trek function that could teleport around, it wouldn't be continuous.

Clarke, CS 137

You can tell it's working because it works.

Clarke, CS 137

I feel bad that I didn't give enough exercises to take up your whole Thanksgiving weekend. You probably had time to sleep and stuff.

Csima, PMATH 330

Don't become a mathematician; you'll end up with a spouse in another country.

Csima, PMATH 330

[in reference to FORTRAN] I use the programming language of champions.

Vrscay, MATH 227

Now, like calling a date for the first time, calling a procedure might seem a little scary. But we're going to be proactive and jump and link. Although you probably shouldn't jump and link on the first date.

Vasiga, CS 241

But math is philosophy. Or philosophy is math. Anyone have any smokes? I need a joint.

Vasiga, CS 241

I'm surprised 0^0 isn't a porn site actually.

Vasiga, CS 241

I don't like writing 'equals infinity', it makes me feel a bit ill.

Ways to Annoy CorruptED!

Because it's funny watching impotent rage come to nothing

Making people angry is funny. It's a known fact. Some people are funnier than others of course. I'm sure making Gandhi angry is either not funny at all or totally funny, depending on which kind of angry he gets, but still, bringing down the wrath of people is lulz-tactical. Making a *mathNEWS* editor chase you around is apparently one of the highest forms of fun, and so I give you a list of ways to make me hunt you down with swords.

- Steal my Top Hat: Seriously, that's all anyone's been doing all week.
- Call me EDdie.
- Knock over my Coke can pyramids.
- Support a union (namely the CAW).

- Make fun of the relationship with my girlfriend [*How many times do I have to tell you that blowup dolls are not girlfriends? — InsidED*]
- Tell me I lost The Game... DAMN YOU INSIDED!
- Mention Kanye We-YO EDDIE I'M GONNA LET YOU FINISH BUT MONKEYSPOON5'S TIMEPIECE LIST WAS ONE OF THE BEST LISTS OF ALL TIME. OF ALL TIME.

So clearly this article was terrible because it was being written by CorruptED himself. So now I, the amazing Kayne West will pontificate! And I'm definitely not a jackass! Who is this CorruptED again?

CorruptED Kayne West

Survival Guide for Stealing a Hat

Because people make it too much fun

First off, let me explain. One of the editors for *mathNEWS*, CorruptED (or "EDdie" as he likes to be called) just recently bought a top hat that he now claims he will wear 24-7. If that's not a challenge, I don't know what is. So, basically, from the moment he bought it, I have been plotting how to steal it and drive him crazy. In doing so, I have also developed a list of tips to help ensure that you get the maximum effect and joy that comes from the thrill of the hunt:

- **Pick Your Target Wisely:** When choosing a person/hat, it is important to be sure that:
 - They will care if you take their hat (seriously, "what-ever" is kinda boring, but, be careful, they might be faking to throw you off).
 - The hat is awesome enough (no baseball caps)
 - They are not completely insane (won't sit in a room stabbing a printout of your Facebook picture saying "revenge...Revenge..REVENGE!!!!")
 - You are friends with the person (Not an anonymous person: 50% of the time, they're insane every time)
- **Have an Escape Route:** Very importantly, you need to be sure that you cannot be cornered. Have an escape route or be in an open area, otherwise it can be disastrous (For example, CorruptED full-fledged tackled me when I stole it in a small room).
- **Be Faster Than Your Pursuer:** It's no fun if the person immediately catches you, so make sure you can keep the chase going for an extended period of time.
- **Have a Good Hat Hiding Place:** Watching CorruptED walk right past the place I hid his hat was quite satisfying. I'd recommend it.
- **Limber Up:** You may be subjugated to pain or torture to

reveal the hiding place of a hidden hat. DON'T GIVE IN! If you limber up, most of the levels of (reasonable) torture can be brushed off. (If you happen to steal from someone who is actually insane and is causing you pain, give in; a broken arm is not worth the trouble. CorruptED got surprisingly close, but I limbered up so it was all good).

- **Have Accomplices:** Even if it's just someone holding a door. Having someone downstairs so you can throw the hat over the balcony will lengthen the chase, make the pursuer go crazy, and give you a chance to hide the hat. It's a lot funnier when you're teaming up.
- **Use Misdirection:** Once they lose sight of the hat, start messing with their head. "I don't have your hat, I gave it to Insider." "Well, I might have thrown it in the garbage, I don't quite recall."
- **Have a Grand Finale:** After the chase has lasted for a while and the excitement has gone down a bit, Basically pick a moment to show it was all fun and games, but, ha ha hahaha haaaaaaa.

SegFault

Drywaller

"Takes up. One client isn't paying, so long as each square has the right number of walls surrounding it. Sounds a little tricky, but we didn't go to be the #1 drywall contractor for being lazy!"

Alan

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

3	2	3	3	2	3	3	1	3
2	1	1	1	1	2	2	1	2
1	0	1	0	1	1	0	1	1
1	0	1	0	1	1	0	1	1
1	0	1	0	1	1	0	1	1
2	1	1	1	1	2	2	1	2
3	2	2	1	2	2	1	2	2
2	2	2	1	0	1	2	1	2
1	3	4	2	1	2	3	2	2

Drywaller courtesy euri.ca

Which Superhero Are You?

By program!

- CS - Batman: You have no actual superpowers, but your wit and cunning gets you out of tough situations.
- SE - Robin: You wish you were Batman.
- PMath - Dr. Xavier: You are wise, and powerful, but you never put your powers to anything useful
- AMath - Jean Grey: *[For some reason, the writers didn't finish this line, and we couldn't find them in time to finish it. — InsidED]*
- Stat - Angelo: Need I say more?
- C&O - Ash Ketchum: I choose you, Pikachu!
- Math/CA - Rorshach: To be honest we couldn't think of anything for you... You get to be Rorshach!
- ActSci - C3P0: "Sir, the possibility of successfully navigating an asteroid field is approximately 3,720 to 1." Face it, you've quoted it before... and you're thinking it now.
- DD - The Wonder Twins: Not because you have 2 degrees, I just wanted to make a tits joke.
- MathStud - Duke Nukem: You're epic, I mean stud is pretty much your name. Yet you will either stay in school forever, or just give up when you run out of money.
- Eng - Zapp Brannigan: You are arrogant... fast and hard.
- Arts - Jubilee: Shiny things!
- Science - Gambit: You're cool... but we almost forgot about you.

π rmaniac and cherry π

Unnatural History

Old mathNEWS

Good *mathNEWS* had written it's views,
and written it's views had he.
He called for his prose, he called for his news,
and he called for his editors three.
Every editor had a comment
and a very fine comment had he.
Oh there's none so rare, as can compare
with *mathNEWS* and his editors three.

The Unnatural Historian

Historical Programming Quotes

Straight from a thread on proggit to you, here are Historical Programming Quotes!

- "Classes struggle, some classes triumph, others are eliminated." - Mao Zedong on OO and Refactoring
- "A good man is hard to find." - Flannery O'Connor, speaking on the subject of UNIX technical documentation
- "If I have seen further it is by standing on the shoulders of giants." - Isaac Newton on using open source licenced libraries.
- "Love truth, but pardon error." - Voltaire on exception handling.
- "On two occasions I have been asked [by members of Parliament!], 'Pray, Mr.Babbage, if you put into the machine wrong figures, will the right answers come out?' I am not able rightly to apprehend the kind of confusion of ideas that could provoke such a question." -Charles Babbage

caret

Approach of the Math Mummy

4,000 years ago I began to design a pyramid for my passing into the heavens, but alas, there was a problem. You see, the number system we used had 7 different digits, each representing specific values:

- 1 - This was represented by a short vertical line
- 10 - This was represented by a heel bone, which looks like an upside down 'U'
- 100 - This was represented by a coil of rope.
- 1,000 - This was represented by a lotus plant
- 10,000 - This was represented by a finger
- 100,000 - This was represented by a tadpole, or frog
- 1,000,000 - This was represented by a man with both hands raised

To get the value of a number, you simply add the value of each of the hieroglyphs that make it up. You cannot, however, use any hieroglyph more than 9 times. This presents the problem that the largest number we could express was equivalent to what you would write as 9,999,999 and even that was quite long to write.

With our number system, I was unable to order enough gold for my burial chamber, so I set off on a journey. I eventually met a man who explained to me your 'base 10' number system. He claimed to be of a place called 'Waterloo'. I decided to pay a visit to this 'Waterloo'. I even dyed my bandages in honour of this man's exquisite tie. I am currently making my way through Toronto, but travel is slow when you are 4,000 years old. I expect to make it for next Friday, and I hope to see you there.

The Math Mummy

Did you know you can follow *mathNEWS* on Twitter?

We are @UWmathNEWS, so come check us out!

Horrorscopes

Because the scoping of horrors cannot wait until after Halloween

ACCOUNTING: Halloween appears completely unprofitable. Costumes, candy for trick-or-treaters, and buying a pumpkin, simply to cut it open? You spend your October 31st making money by selling candy to trick or treaters.

Your Lucky Number: \$5 per Treat.

ACTSCI: When the dead arise again this Halloween, your entire value of life disappears. Insurance rates die, and so does your profession.

Your Lucky Number: 6 cents for a kidney.

AHS: This Halloween, after your classes on the circulatory system, you decide to test how low your heart rate can go. When it turns to 0, either you die, or you get killed by zombie-hating hordes.

Your Lucky Number: 1% chance of survival the first time.

AMATH: You apply your math to create a paper mache version of an icosahedron costume for Halloween. Unfortunately, you get mugged by a roving band of DnD nerds. You didn't apply the math to remember to bring clothes underneath.

Your Lucky Number: 20 blocks of streaking.

ARTS: You unoriginally decide to reuse your costume from Oktoberfest for Halloween. This works out fine for most of the night, until you stumble across a group of drunken engineers dressed up as the Inglourious Basterds.

Your Lucky Number: 1 Dead Nazi.

BBA/BMATH/MATHBUS: This Halloween, you go as the dying economy coming back to life. Unfortunately, you spend all your savings on an elaborate costume to impress your friends and nobody gets it. You're broke and have no friends, but the rest of your classmates are rolling in the dough.

Your Lucky Number: \$1563.42 for a forced laugh.

C&O: You calculate the optimal path in tricking and treating. Unfortunately, your optimisation leads you deep into the other side of Kitchener. You have a sugar crash and pass out just in sight of Fairview Mall. Small children raid your passed out body for candy.

Your Lucky Number: 45 Kit Kats, 300 Smarties, and 1 giant hangover.

CS: For Halloween you decide to search online for your Halloween costume. Unfortunately, you forgot to turn Google Safe Search off. You don't arise from your room until November 1st.

Your Lucky Number: 72

ENG: You and your gang dress up as Inglourious Basterds. Witty and ingenious, but when drunk at 2 in the morning, you realise scalping a German takes a lot longer than in the movie. You get caught by the cops after 2 hours of trying.

Your Lucky Number: 1 thick skulled artsy

ENV: In an attempt to save the orange gourds, you chain yourself to a pumpkin patch. You manage to freak out enough people on Halloween, but you forgot one fatal flaw with your idea. Linus was right. But the Great Pumpkin isn't as loving as once thought.

Your Lucky Number: 3 seeds through the skull.

MATHSCI: You decide to go as Spongebob to your first Halloween party. Unfortunately you get too into it, and go find a squirrel to bring to the party.

Your Lucky Number: 4 rabies infections.

PMATH: In an attempt to get a lower Erdos number, you go trick or treating, but instead of asking for candy, you write a paper with the person who opened the door. This works well until the Erdos rolling over in his grave turns him into a zombie.

Your Lucky Number: 5. Your Zombie Erdos Infection Number.

SCI: You find out Stephen Hawking is coming to Waterloo and almost pee yourself. Unfortunately, when he disproves the existence of time, you come back in time, rewrite this article to inform everyone of the problems with time and space.

Your Lucky Number: Just so you know, infinity isn't a number.

SE: Once again you decide to go both ways, and dress up as a pirate ninja. Unfortunately, the ninjas can easily point you out as a pirate, and the pirates just think you look weird.

Your Lucky Number: 4 shurikens and a hook through the back.

STAT: You calculate the probability that both vampires and werewolves exist. You decide it is next to impossible. Unfortunately, Twilight fans try to prove you wrong. While none of them are either vampires or werewolves, human teeth aren't that weak.

Your Lucky Number: 132 bite marks in the abdomen.

UNDECLARED: Hopefully, because you are undeclared, *mathNEWS* will choose your fate. Go as a mummy, but instead of normal wrappings, use Imprint.

Your Lucky Number: Only 13 copies to cover your body.

CS Jokes

Eight bytes walk into a bar. The bartender asks if he can get them anything.

"Yeah", reply the bytes, "make us a double."

An unsigned integer walks into a bar and orders a drink. The bartender delivers it and notices that the integer is looking rather sad, so he asks "Is something wrong?"

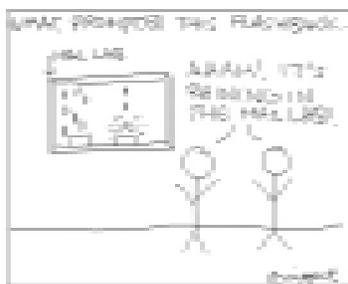
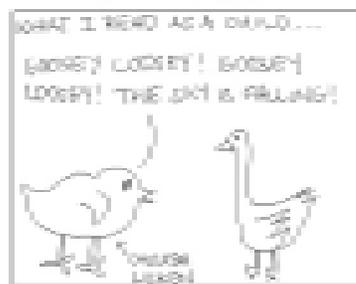
The integer replies "Parity error".

"Ah", says the bartender, "I thought you looked a bit off."

Why do programmers always mix up Halloween and Christmas? Because Dec. 25 is the same as Oct. 31.

The Weather Gods were clearly not happy last week...

THE SKY IS FALLING!



I have no mouth, and I must scream

Early Monday morning, when I should have been asleep, I was awake, as expected of math students. But then something happened: I entered a strange state of mind, similar to lucid dreaming, where I was able to control what happened within it. Somehow, either during this dream or when I was awake, I read an article from the wiki TV Tropes, entitled identically to this one.

In my weary state, my mind reeled. The concept of being stuck within your mind, with no sensory input, nothing but your own thoughts to live with for all eternity seems to be as prime a recipe for madness as any. What would one do with themselves? They would be left to only their past experience and their remaining thoughts. Given infinite time, though, one would likely slip in and out of sanity.

But out of madness comes logic and reason, or perhaps the other way around. Would a mathematician find beauty within their own mind and create patterns that they had never seen before? Could they be engulfed in the beauty of the abstract when there is naught else to think of? The emotions of rage and sadness may subside to cold determinism and find beauty in the darkness. In the end of such an ordeal, it will be useless though, and a resultant mind would be so deformed, the person who was would be no more.

In this, this was the predicament I was in. I knew I was in a dream and yet I could not escape. I did not find any profound truth, but I did awake in a daze, unsure as to what had transpired. Life went on.

monkeyspoon5
My dreams are getting a little too real

profQUOTES

Harmsworth, MATH 117

If the thingamajig snarkles the doodad...

Godfrey, CS 445

He put it on the web, so I will steal it.

Godfrey, CS 445

If you cloned yourself and then had intercourse, would it be masturbation or incest?

Ward, SE 390

No one manipulated the gender. They came in male, they left male.

Marriott, STAT 231

Hey, maybe it's an important number, if they have a name for it.

West, AMATH 250

This door has a damper, so this door won't slam. (lets go of the door, it slams) So c is too small on this door. I should call Plant Ops.

West, AMATH 250

We haven't proven it, but that is the only solution. Pure math students can cringe now.

West, AMATH 250

We get rid of the i . That would make Apple mad.

Quantum Bogosort

The real reason they're building the QNC

I'm going to assume that you know what bogosort is. If you don't, here's the algorithm:

1. If the list is sorted, stop.
2. If it isn't, shuffle the list randomly.
3. Go back to step 1.

Obviously this is extremely inefficient. However, there's a solution to this inefficiency, and this solution is quantum computing. Because of the many-universes hypothesis in quantum physics, a list that is sorted randomly will create an infinite number of universes, with some universes containing a sorted list. In this case, quantum computing can make bogosort work in $O(n)$. Here's the new algorithm:

1. Shuffle the list randomly.
2. If the list is sorted, stop.
3. If it isn't sorted, destroy the entire universe.

Since the only survivors of this rather apocalyptic approach to computing will be in universes where the list was sorted after the first shuffle, it is quite efficient. Checking if a list is sorted requires $n-1$ comparisons, and I'm going to assume an entire universe can be destroyed in $O(1)$, as it only ever has to happen once. Thus, bogosort becomes an $O(n)$ sort algorithm.

The Other Tree

West, AMATH 250

So if you wanted to prove this, you'd be using this thing I'm erasing now.

Dupont, MATH 117

This is just a convention. Someone made it up one day, and everyone followed along. Kind of like marijuana.

Dupont, MATH 117

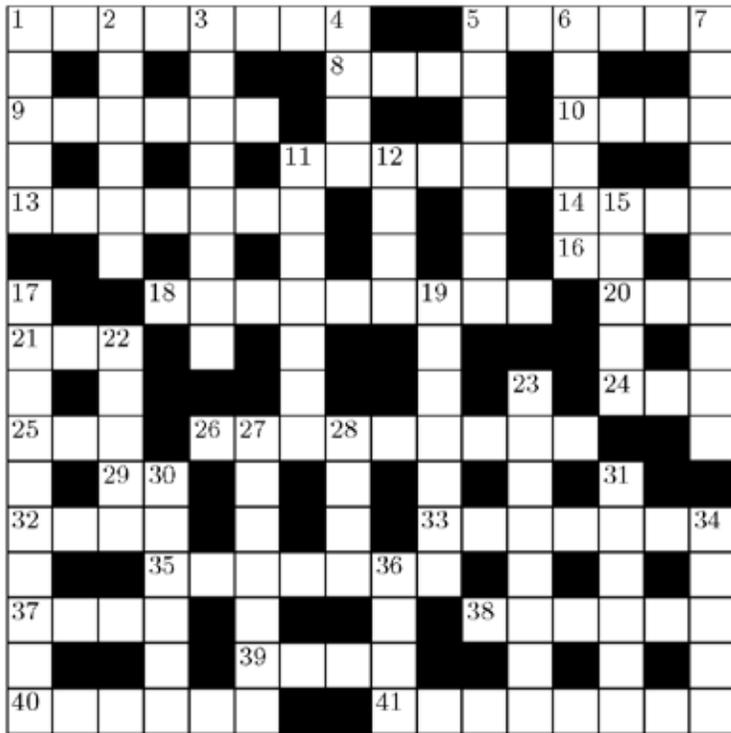
Obviously this doesn't hold if x is 0, because if you type in 5 divided by zero on your calculator, you get an error. Hey, we should make arctan of error equal to $\pi/4$.

Dupont, MATH 117

You want to pay attention to who's mounting whom.

Zeller, ANTH 261

Have your profs said anything quotable? Want to share it with the entire Math populus? Now you can! Drop your *profQUOTES* in the BLACK BOX outside of Comfy, or email them to mathnews@student.math.uwaterloo.ca. Your *profQUOTE* will then be published for all mathies to enjoy!



gridCOMMENTS

So, we had some solutions submitted for last issue's *gridWORD*. We had two prizes this week because of the lack of submissions for Issue 1. The only completely correct submission was from Ian Dimock whose answer to the *gridQUESTION* was, "Last week I was too busy perfecting my Smurf cooking recipe to complete the *gridWORD*. It turns out that cooking a Smurf any way at all is cruel and disturbing." Although I disagree about the cruelty part (little blue twits have it coming), you can pick up your prize in the MathSoc office on the third floor of the MC. Talk to the office staff and they should be able to get it out of the *mathNEWS* mailbox for you. Our other prize this week goes to Nick Murdoch who made only one error and answered, "Accidentally gave it to a student who claimed his name was *mathNEWS*. 16/20" We may have some questions for you about this imposter at a later time so that he can be tracked down and used as a pizza topping. Anyhow, you to can collect your prize. The remaining submissions had more than two errors and so a tiebreak using the *gridQUESTION* was not required. Thanks to all who submitted.

There is a new *gridWORD* prepared for this issue, so submit to the BLACK BOX as usual. Remember to submit an answer to the *gridQUESTION*: What type of hat do you wish you could own?

Imprint

That's not the answer. Ever.

Especially as a source for opinions from MathSoc.

perki

Cherry π

- | | |
|---|--|
| <p><i>Across</i></p> <ol style="list-style-type: none"> 1. Type of headache 5. Mars but not Pluto 8. Admit opposite 9. Loan shark perhaps 10. National language of Pakistan 11. Important 13. Ability to understand feelings 14. Energy and flair 16. In the direction of 18. Cessation of hostilities 20. Unit of resistance 21. Possess 24. Geochronology time period 25. A cut rock or mineral 26. Numbered road marker 29. Adverb for comparisons 32. Zilch 33. Geometric wood mosaic 35. Sugar cane product 37. Prefix meaning "all" 38. Riddle 39. False front 40. Electrical current unit | <p><i>Down</i></p> <ol style="list-style-type: none"> 41. Bucolic 1. Small rodent 2. Cranky 3. Opening 4. Part in a graph 5. Victory won at great cost 6. Talisman 7. Large competition 11. Skeptical 12. Tidy companion 15. Not tight 17. Italian blue cheese 19. Form of an element 22. Wanderer 23. Restricted computer network 27. Submerge in a liquid 28. Type of poem 30. Literary genre 31. Uncouth 34. Path |
|---|--|

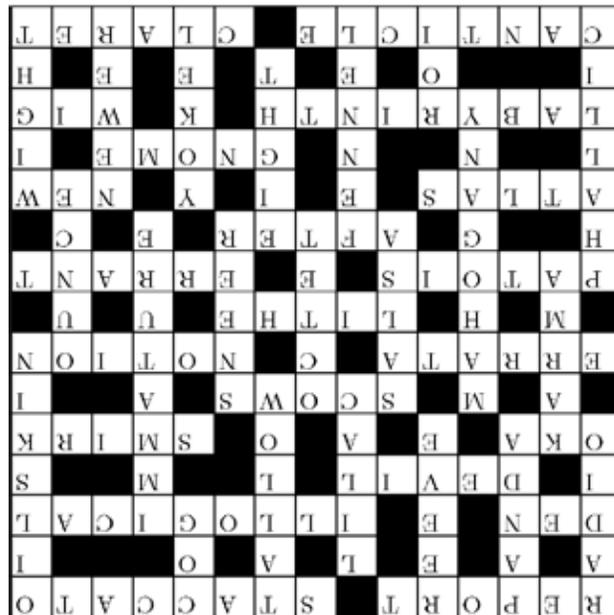
\$25 HMV Gift Card

I don't see you writing for mathNEWS, now do I?

So I don't have a lot of space to announce this week's winner, because we have a lot of stuff in this issue. In fact, I had to be a little more creative with layout this week so that everything can fit. Yay creativity!

This week's winner is SegFault, for he provided me with much humour (and exercise) on Monday watching CorruptED chase his hat. Your prize is in the *mathNEWS* mailbox in MathSoc.

Insided



Solution to Previous *gridWORD*