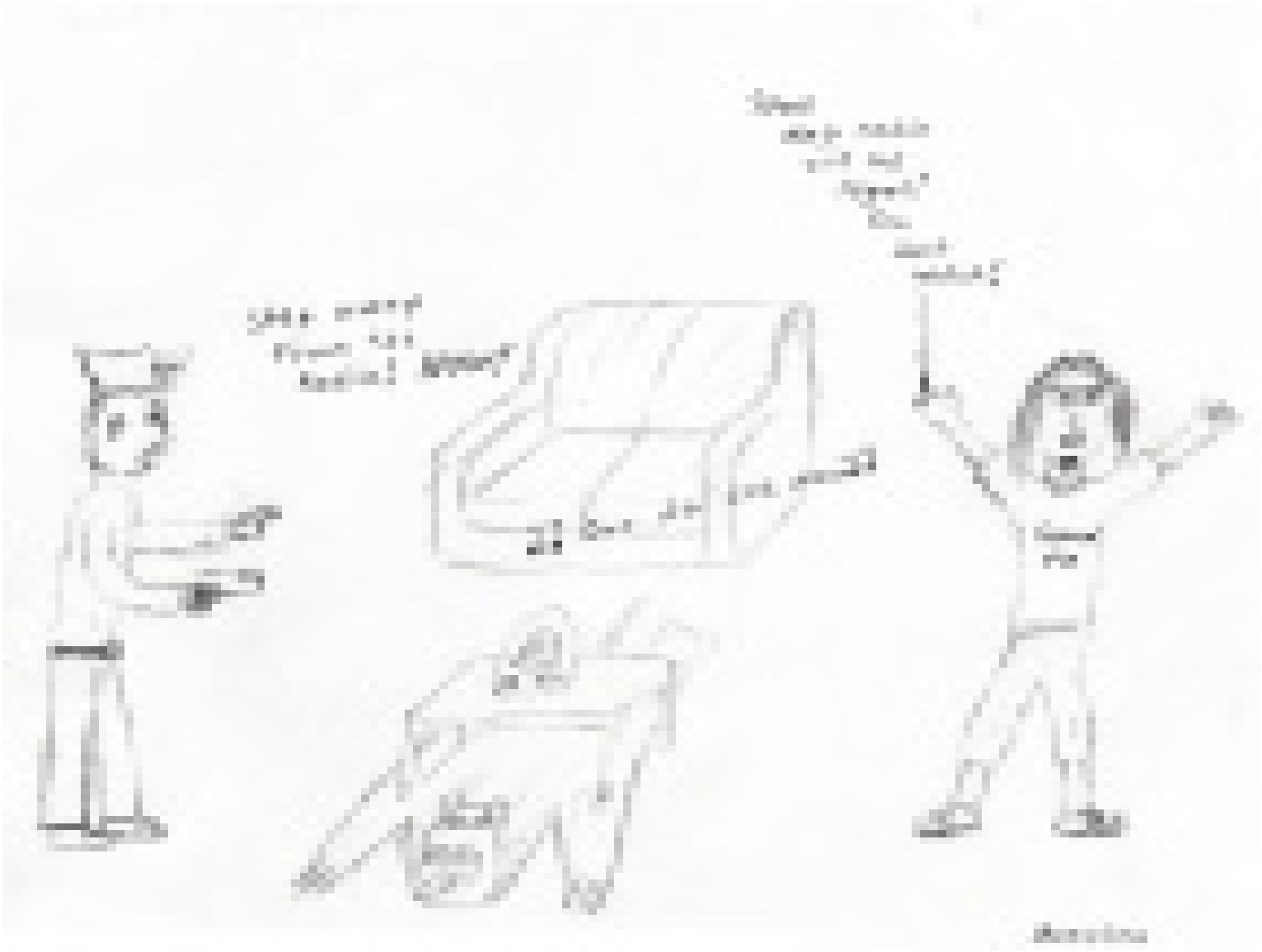
mathNEWS

Volume 111, Issue 5 *Friday, November 20th, 2009*



This is what happens when students vote “NO”

CC BY NC ND

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*look*AHEAD

***math*NEWS**	
November 20	Issue 5 goes on a murderous rampage
November 30	Production Night #6
	Come to MathSoc at 6:30
December 4	Issue 6 is a witness in court
MathSoc	
November 25	Annual General Meeting
Wednesdays	Games Night in Comfy
Thursdays	Movie Night in Comfy
FedS	
November 25	Town Hall Meeting, 12-2pm in SLC
November 27	Trailer Park Boys @Bomber
Faculty of Mathematics	
Questions about these? Find your academic advisor!	
December 5	Last day of classes
	Saturday follows Monday schedule
December 8	Exams Start
December 22	Exams End
CECS	
Ongoing	Keep applyin' for them jobs, folks!
Miscellaneous	
November 20	Transgender Day of Remembrance
November 26	Thanksgiving (US)
November 30	Cyber Monday
December 4	Sound FM Dies

Orientation Week Changes

Delayed Yet Again!

This Monday saw a very heated Senate meeting concerning changes to the Fall term calendar (including Orientation Week). Student Senators were unanimously opposed to the motion, which resulted in a tied vote (23-23). Guess what that means, kids? They *haven't made up their freakin' minds yet!*

More to come...

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What you get when a man loves a woman: CorruptED, ImpulsED, InsidED

*mast*HEAD

Howdy concerned readers,

So the referenda are over, and the results have been tabulated. The SSC and SuckFM were voted down, whereas an additional swine flu wing of Health Services was voted in, so we'll need no longer to refer to the *entire* building as Plague Central. I am pleased though that the University is demonstrating that student feedback can influence the direction the administration is going. However, I'm slightly worried that they might be tempted to spend a few extra thousand attaching many differently coloured lasers to the roof of Plague Central. (Yeah, I'm still bitter about the logo fiasco.)

I, for one, am disappointed that the Student Services Complex got voted down. I was looking forward to watching people in wheelchairs try to cross both Ring Road and University Avenue to get to the Office for Persons with Disabilities. It would get boring after a little while though, like watching someone inexperienced play Frogger.

***mast*HEAD Question:** What would you do with the warehouse soon-to-be-formerly used by SoundFM?

TheNewGuy (Install cloning tanks to make my army of mutant velociraptors. And torture chambers. Lots of torture chambers.), cbhllhbc (Propose that mathies claim it for "internal use", then immediately repurpose it as "student space" for AHS first-years in hopes that we can improve "inter-faculty relations"), The Other Tree (Replace the 'a' in warehouse with an 'e', meaning that it turns into a house every full moon), CorruptED (A shrine to Sound FM's incompetence, with an engraving of "No, you don't deserve student money"), Lich (Destroy it), Thor (CS-themed restaurant/bar: solve NP-Hard problems to get your food!), snippet (The Michaelangelo Finistauri Centre for Douchefield Research), CODE: e <<access denied>> (Lego train museum!), (define this (not cool)) (Erect a shrine. WE MADE A MISTAKE, PEOPLE!), Big Mak (We need an SE house!), Tbor (Use it for a great Student Services Centre), Megaton Panda (Place to hide new FOBs), perki (Control centre for the impending robot apocalypse), The Gross Man (Move FedS offices out of the Student Life Centre), *mast*HEAD Creeper (Set it up the bomb!), InsidED (*math*NEWS could use a bigger office…)

ImpulsED

"Welcome to Waterloo's first brothel slash indoor water park!"

WIM's Epic End of Term!

This term is FINALLY COMING TO AN END! Which means? Women in Math Ugrad is having our term-ual EOT once again! This year will be bigger, better AND MORE EPIC than ever before! Once again, held in the MC Comfy Lounge, once again there's Bubble tea and once again KARAOKE, but THIS TERM there will be SO MUCH MORE! All your favourite past couple terms' foods AND gingerbread men for you to decorate!

Come relax with nail art and henna, strategize with board games, play Rock Band and other Nintendo Wii games, and sing your heart out in karaoke! Both guys and girls are welcome for an evening filled with food and fun! Keep an eye out for posters for the finalized date!

EXCITED FOR AN EPIC EOT!
WiM Undergrad Committee

Prez Sez

New Prez!

HI ALL!!! Andre here!!! Now some of you more intulectureaders must be thinking, "Andre in Prez Sez??? I thought Edgar was Prez... or was it Will??? Either way it shouldn't be Andre since he's the CRO... Well you're RIGHT!!! And very very wrong... You see, Will was elected president for this term and then decided to run for president again for the winter term. Now since he was running he had to step down as president of the current term which is where Edgar came in. He was appointed the acting president while the elections were on. Though I was nominated to be acting president, I was unable to take it since I was then CRO. Will then stepped down from the race for president of Winter 2010 and from president of Fall 2009. Edgar stayed as acting president because he was appointed until the end of the elections and once they were over a new president was needed for the remainder of the term. I stepped down as CRO so I could run for an executive position for the Spring 2010 term and in doing so I became eligible to be nominated to the position of interim president of MathSoc for the remainder of the term. Edgar was also nominated but in the end council decided that I was the best person for the job. So here I am now, your 3rd (and hopefully last) president of the term, and I have no idea what I am doing but I seem to be doing it alright. So yeah, I hope that helped you understand the situation a little better. Feel free to come by MathSoc and say hi because I'm there most of the time. Just don't ask me any questions about my job because I have no idea what I'm doing lol.

President Andre
prez@mathsoc.uwaterloo.ca

VPAS Sez

Hello everyone!

Charity Ball went splendid! Jenny Hirst (Charity Ball Director) did a fantastic job! We had an amazing live auction filled with ties, *prof*QUOTES, Dinner with the Dean, and even some lucky men and women!

Remember, Pints with Profs is coming up! So keep a look out on more information!

Hope you're all getting ready for finals... they're coming up FAST! *sigh*

Maria Christina Greco
MathSoc VP Activities & Services
vpas@mathsoc.uwaterloo.ca

The UW Gamers LAN event

Sorry, we couldn't fit the pretty poster

Saturday, November 28th, 10am to 10pm RCH 307! There'll be COD4, CS1.6, CS:S, Starcraft,TF2, Warcraft 3, DotA, L4D, UT3, etc, all for your gaming pleasure. Free admission, desktops, laptops and networking gear all welcome! Sign up @ http://UWgamers.org/lan

For more info, check out http://uwgamers.org/

UW Gamers

VPF Sez

Apparently, Flipping the Bird at the math*NEWS Editor Does Not Qualify As a VPF Sez*

After being threatened with something much worse being published as a VPF Sez, here I am. End of month financials for November finally came in today, which was a barrel of fun (which is nowhere near as much fun as a barrel of monkeys). They got done just in time for my review, which starts tomorrow. Yes, a review… just to make sure MathSoc finances haven't gotten totally sketched out on my watch. If you would like to find out the results of this review, come see Prashant (Kumar) Patel give his Internal Financial Review Report at the Annual General Meeting (check the *look*AHEAD for more details).

Sarah Pidcock
MathSoc VP Finance F09
vpf@mathsoc.uwaterloo.ca

MathSoc Elections

Winter 2010 Executives

It was exciting to see a number of candidates for the election, and even better, a high voter turnout. While 440-some-odd people is a better turnout than usual, it's still nowhere near 10% of eligible voters. How sad.

Anywho, your Winter 2010 Executive are:
President: Sarah Pidcock
VP Activities & Services: Ian Charlesworth
VP Academic: Piraveena Tharmalingam
VP Finance: Rami Finkelshtein
Congratulations to the four of you, and behave yourselves.

Spring 2010 Executives

So after all of the excitement of the Winter 2010 elections, we find all four positions for Spring 2010 acclaimed. How unexciting.

Anywho, your Spring 2010 Executive are:
President: Maria Greco
VP Activities & Services: Joycelin Karel
VP Academic: Andre Magalhaes
VP Finance: Kumar Patel
Congrats on being the only ones who care.

InsidED

VPA Sez

...about as much as CKMS after December 5th.

Annual General Meeting

Wednesday 25 November 2009

MathSoc's Annual General Meeting will be held on Wednesday 25 November 2009 at 4:30 in Comfy. There will be food and discussion of various things.

The agenda can be found on the door of the MathSoc office.

InsidED

This *math*NEWS is brought to you by the letter π and the number *e*.

Waterloo Voted

And they are clearly not amused…

Last week, UW's undergraduate students voted on three proposals put forward by the Federation of Students Council. If all three were to pass, it would have added $62 to student fees over the next three years. Students voted only for $10.

100.3 Sound FM was denied a $2.50 refundable fee by a margin of 53.6-43.7%. While this was not as overwhelming a majority as the referendum two years ago to defund the station, it's still enough to deepen an already dire financial situation. President Steve Krysak locked down the station within an hour of the announcement, and it was broadcasting the BBC for the entire weekend. After a weekend of discussion, the Board of Directors decided that the station will close just before the end of classes. Despite that, The Record reports that Krysak still rejects the notion that students don't support the station.

The Student Services Complex was also defeated by a hefty majority, with the $49.50-per-term proposal being defeated 56.4-40.3%. FedS President Allan Babor said that they will look at why the referendum failed, and continue to work on plans for the complex to better meet students' needs. While FedS policy allows the question to be reposed in 90 days, Babor did not mention specifically if there will be another vote on the matter. Graduate Student Association President Jonathan Aycan said that, as the project can't proceed without undergraduate support, it makes no sense for the GSA to have a referendum in the winter as originally planned.

The Health Services Expansion was approved overwhelmingly, with students voting 59.0-37.7% in favour of the $10-per-term fee. This fee will cover the construction of approximately 20,000 square feet of additional space in the existing Health Services complex, and will be implemented once construction is nearly complete (estimated in 2011). Though the GSA referendum also showed strong support, the result did not meet quorum, and so it is unclear at this time how the GSA will proceed. The building is now going to the final planning and building stages.

As all three proposals met quorum (which is 7% of all students on the winning side), the results are binding.

InsidED

Midnight Capture the Flag

I haven't been lying! It really is fun! So show up!

Picture this if you will: the time and date are **23:59, Sunday November 29**. You're too excited about going to class in the morning to sleep so you have decided to take a walk through the MC. At midnight you happen to be passing by the **Comfy Lounge** on the third floor, just as everyone is arriving there and awaiting the commencement of the **CAPTURE THE FLAG** game. Since you're feeling rather well, you decide to **join in**. You then proceed to have a lot of fun running around the 5th and 6th floors of MC before returning to your bed well satisfied.

The Management

Lying Management Is Lying

Everybody clearly knows that there is no such thing as Midnight Capture The Flag.

Not The Management

What the MC has to offer

In the last issue, I wrote about some services which the school offers that often get overlooked. Today we will explore some of the different facilities which are available to us here, in the MC.

Mathsoc:

Mathsoc offers a number of services to us Mathies*. Mathsoc has 75 cent work report binding (Yes, you read that right), 5 cent photocopies and 10 cent printing as well as a few staplers, hole punchers and paper cutters available to use for free. Also worth noting, there are some useful items for sale including pink tie approved calculators (which are cheaper here than anywhere else I have seen) and stationery (pens, pencils, erasers, paper). Lastly, they sell some really cool novelties. There are too many to list here, but some highlights are pink ties from past orientation weeks, really cool math shirts and, my personal favourite, shot glasses. To check out everything else, just drop by MC3038! (If you are not in Math, don't worry! Other faculties also have their own societies like Engsoc, Scisoc, AHSUM, ASU and ESS.)

(If you have applied for your Mathsoc refund then you are not eligible for these services.)

Computer Labs:

The MC is full of computer labs. There are 4 labs on the second floor, and more than I feel like counting on the third floor (seriously, most of the third floor is just computer labs). Some of the labs have all Macs, others have computers that can connect to either Windows, Ubuntu or Solaris. These labs are very convenient if you don't feel like running home just to check where your next class is, or where you're writing a midterm in 5 minutes. They're also great for CS assignments once you get used to using Linux. To log in to these computers, just use your WatIAM username, and the password you got from MFCF (Math Faculty Computing Facility, MC3017).

Maze:

Bored and got a week or so to spare? Head up to the 6th floor for a free maze! Enter from the corner that connects to DC and make your way to any of the other exits. One of your professors probably has an office here, so you can pick up your assignments while you're there. Once you have done it a few times, start trying to beat your record. The current record is 5 days, 3 hours, 24 minutes and the record for fastest first time is 2 months, 12 days, 4 hours, 6 minutes.

Warning: Enter the 6th floor at your own risk. *math*NEWS takes no responsibility for any injuries or deaths that occur on the 6th floor whether from lack of food/water, or from other students searching for food (i.e. you) since they cannot find an exit.

MC creeper

UW Capital Markets Group

The UW Capital Markets Group is a new club on campus that promotes career opportunities in the financial industry to the UW student population and better positions our members for these opportunities through club events. Membership in the UW Capital Markets Group is FREE. To become a member, please email us at `UW.Capital.Markets@gmail.com` with your name, student ID, program, and year of study, or visit `http://capitalmarkets.uwaterloo.ca`.

Interesting Math

Braess' Paradox

How many of you have driven somewhere, only to be stuck in horrible traffic, and wished the city made more routes available? I mean, if there are more possible roads to take, it would make sense that overall traffic would reduce as people distribute over the roads, right? Unfortunately, Braess' paradox states that (loosely speaking) extending a network, such as by adding an additional route, can actually *increase* the individual running time required to go from a start point to an end point. We will make the assumption that every driver takes the path that looks most favourable, in the sense that overall trip time is minimized (we could also talk about quality of road, scenery, and so forth, but then we would simply take utilities into consideration instead), which is a reasonable assumption - this will henceforth be referred to as the assumption of rationality.

Consider the following scenario: there is a start point (S) and end point (E), with two intermediate stops, say A and B. There are roads joining S to A, S to B, A to E, and B to E. That is, there are two possible paths from start to end, namely SAE and SBE. As for the travel times per route, we will say SA has a "cost" of $n/100$, where n is the number of drivers who take that road, and AE has a cost of 55. We reverse it for the other path, SB has a cost of 55 and BE has a cost of $n/100$. Then each path SAE and SBE has a total travel time of $55 + n/100$. Suppose there are 5000 drivers. Then under our assumption of rationality, 2500 drivers will take the route SAE and the other 2500 will take the route SBE. Indeed, if there were not an even split of drivers, then drivers in the route with the higher volume can switch to the alternate route to strictly decrease the driving time. Thus, the overall cost for each driver is $55 + 2500/100 = 80$.

Let us examine the effect of adding an additional path from A to B, with 0 cost (yeah, extremely good road designers). In this case, *every* driver takes the SABE path. Indeed, the SB path always has a cost of 55, while the SA path has a worst case scenario cost of 50 (if every driver takes the route SA), and hence every driver begins by taking SA. Arriving at A, a driver has two options: take AE, or ABE. Since AB has 0 cost, ABE has the same cost as BE. Again, AE always has a cost of 55, while BE has a worst case scenario cost of 50, so every driver takes the free path to B, then continues via BE. Then the overall cost for each driver is $5000/100 + 5000/100 = 100$, which is 20 higher than before we added the extra route! Furthermore, no individual driver has the incentive to switch to the previous choices of SAE or SBE, since both of these paths now have an overall cost of $5000/100 + 55 = 105$. Thus - Braess' paradox. As a side note, you may notice that I choose to make this road one-way from A to B, however the conclusion remains unchanged if we assume it is a two-way road, since the path SBAE always has a cost of 110.

Of course, this example seems quite contrived. Unlike most of the math I do though, this concept actually does come into play in real life. On Earth Day in 1990, New York decided to close 42nd street, which was always congested. Many believed the decision would be disastrous - and many were wrong, as traffic flow actually improved. A similar situation occurred in 1969 in the city of Stuttgart, which tried to reduce traffic jams by building a new road, only to see traffic worsen. The mathematical model presented above could be realized in real life as well: suppose there is a T-intersection in the road, forcing drivers to turn either left or right. On the left, there is an accident on the road which forces cars to a single lane and creates congestion; so that the time required to travel this leg of the route is dependent on the traffic volume. Upon passing the choke point, drivers can continue on their way to the end. On the other hand, should a driver decide to turn right at the T-intersection, they drive without congestion for the first segment of the road, then encounter construction which forces drivers to one side of the road and introduces congestion. If a traffic engineer attempts to improve matters by creating a new road that joins the end of the accident area to the beginning of the construction area, we now have Braess' paradox. In fact, it was determined that this paradox would occur about half the time when dealing with congested areas! So let this be a lesson to you, should you decide to pursue a career in transportation design (or are playing a realistic SimCity game).

Vince's problem of the issue

According to a certain professor I won't name, my problem of the issue from two issues ago was too easy. I hope that I can make up for that in more interesting problems this time around, so these are for you Professor Z.

1) Hopefully, everyone knows that $\cos^2 x + \sin^2 x = 1$ for every real value of x. What real values of x will be a solution to $\cos^n x - \sin^n x = 1$, for a given positive integer n?

2) Suppose you have a set of four real numbers. They have the interesting property that if you take the product of any three of the numbers, then add it to the remaining number, the result is always 2. Find all possibilities for this set of numbers.

Vince Chan

The Cord VS. Imprint

So I decided to take a look at the last issues of both the WLU student paper and the Imprint, to try and figure out which school had the worse rag. The results weren't too surprising; the two papers weren't all that different. And yet there were small differences that made me enjoy The Cord more.

The first thing I noticed was it was shorter. It was so nice. Only 20 pages compared to Imprint's 36. The shortness made it seem more compact, and although the amount of sports and ads covered about the same percent of space, it just seems so much better with less of it.

The next thing that popped out was the lack of comics and sex columns. Just, wow, I mean, they're just not there! I'm so unscathed and unconfused!

And the one thing that struck me was the much larger recognition of Remembrance Day, with almost a fifth of their issue devoted to it, and only a single page out of thirty-six was devoted in Imprint. So to The Cord, I salute you for being just enough better than Imprint.

The Gross Man

Thor's CS Problem of the Fortnight

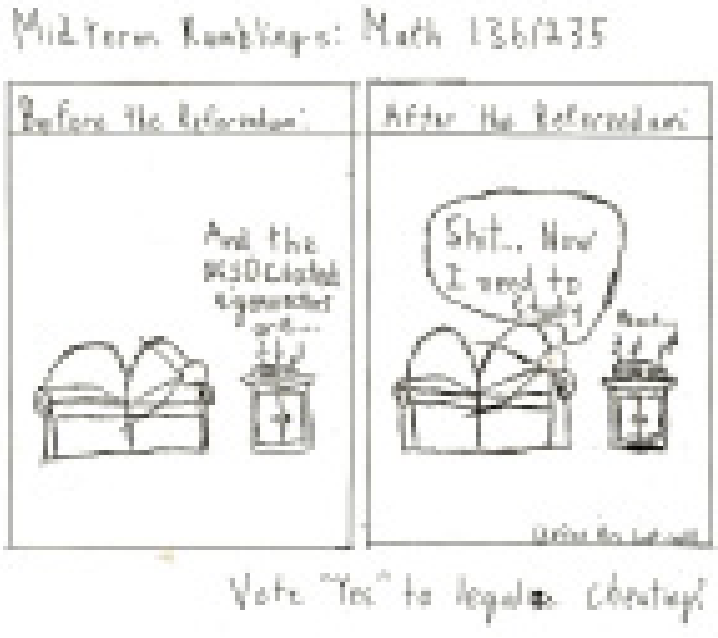
Your morning algorithmic constitutional

Last Fortnight's Question: You are an army general in a combat situation. Your intelligence staff has acquired the plans to your enemies' communications network, a map of base stations and the cables connecting them. You wish to efficiently disrupt your opponent's communications, cutting them off from each other, by blowing up base stations. How can you determine which base stations will segment communications for the enemy force when they are destroyed?

Its Answer: As was probably obvious from the presence of the word 'network' in the problem, this is a graph theory question. A good way to determine where to strike would be to look for stations that you could destroy which would sever the communication network into two separate components. A base station (vertex) that meets this definition is called an *articulation vertex*. Articulation vertices can be located with a linear-time algorithm.

The algorithm first involves finding the depth first search tree. The vertices of this tree are then examined, to see if they are "cut-nodes", vertices that can be deleted to render a disconnected component. In this algorithm, we employ the concept of "earliest reachable vertex" to mean the "earliest" vertex (in the Depth First Search sense) that we can reach via a back-edge from this vertex. We examine each vertex of the DFS tree to see if it has any of the following properties: 1) It is the root node of the DFS tree, and it has two or more children. In this case, it is an articulation vertex. 2) The earliest reachable vertex from it is itself. In this case, your vertex's parent is an articulation vertex, as is the vertex itself unless it is a leaf vertex. 3) The earliest reachable vertex from it is its parent. In this case, the parent must be an articulation vertex.

This Fortnight's Question: Imagine that you look in your kitchen, and you notice that you have three ingredients for your next recipe: eggs, milk, and sugar. Assuming that a "dish" is a combination of ingredients, list the dishes that you can produce using these ingredients (don't forget the empty dish!). In general, what is an efficient way to generate all of the dishes for a set of ingredients?



ElseWhen

25 Years Ago in math*NEWS*

This issue of *math*NEWS is choc full of mathie goodness. So much so, in fact, that it's hard to pick one in particular to feature. But alas, here is a sneak peek at Volume 36, Issue 8, originally published on November 16, 1984.

InsidED

The Quiche Debate Resolved

For the past few issues, there have been proofs and counter-proofs on whether or not all real numbers eat quiche. I think we finally have a proof that will put this debate to rest:

First, obtain a good cookbook and open it to a recipe for quiche. Now observe that there is a line at the bottom of this recipe which reads "Serves 4-6" or something to that effect. This obviously means that the real numbers between 4 and 6 eat quiche. By multiplying the quantities of the ingredients in this recipe by a common factor, it can then be made to serve any, and all, real numbers greater than or equal to zero. Since all positive real numbers eat quiche, and all negative numbers are simply -1 times a positive number, therefore all real numbers eat quiche, because -1 cannot stop the positive real number from eating quiche. Therefore, all real numbers eat quiche.

So there.

Little Known Campus Clubs

- The Society for the Preservation of the Democratic Rights of Chalkboard Erasers
- The Association of Prime Numbers Divisible by 42
- The Society of Math Students Who Would Rather Be Off Feeding Pizza Boxes To Texas Beef Cattle On A Hot August Afternoon
- The Floccipaucinihilipilificationists Club
- The Federation of Discarded Beer Caps (Waterloo Chapter)
- The Society of Sane Math Students

Apparently none of these clubs exist due to either lack of membership or lack of motivated members.

Real Math Subjects

- **Calculost** — Short for "lost without a calculator".
- **Algerbore** — Ideal for those who enjoy having pain inflicted upon themselves by sadistic professors.
- **Sadistics** — Guaranteed to put even hard-core insomniacs to sleep before the end of the class due to the utter boredom.
- **Poor Math** — Poor (i.e. devoid) of real math.
- **Applied Magic** — How to apply various magical techniques to solving differential equations.
- **Graf Theory** — Covers lesser German nobility and some of their cheaper musicians and/or serving wenches.
- **Mortuarial Science** — Everything there is to know about people kicking the bucket.
- **Comb In A Torn Ell Enumeration** — How to count to 7 in 69C40 ways.
- **Computer Sorcery** — The spells, incantations and prayers needed to get a program to work.

Interesting excuses to use around campus

If you're wondering where Interesting things to do around campus has gone, it's located at approximately this location, but another two weeks in the future. Also, I couldn't find any more interesting floor tiles in the past two weeks. So here it is, the strange mumblings passed on to me by the voices in my head while feverishly finishing homework due tomorrow.

- Get a major band to sign your homework. "Sorry, I can't hand it in, I got it autographed."
- Lick the outside of the DC building. "Sorry, I couldn't hand in my homework, I got my tongue stuck to a building."
- Build a brick wall around the drop box. "Sorry, I didn't have a sledgehammer, so I couldn't hand it in."
- Strategically switch religions based on religious holidays. "Sorry, I've had a religious holiday every day for the past week and a half. Yes, they're all valid religions. Jedi is so a valid religion!"
- Cite duties that are obviously more urgent than homework. "No, my alter ego is a superhero, and I had to go save the world. Yes, that does take all the time I have between lectures."
- Hand in a pile of ash, and claim entropy ate your homework, and it experienced heat death. "Sorry, entropy increases all the time, it's really inevitable that this sort of thing happens."
- Claim you submitted it via Twitter. "What are you talking about? Didn't you check my feed?! I told you I was submitting it there on your Facebook wall!"
- Write lists such as these for *math*NEWS. "Sorry, I had a wave of creativity wash over me, and couldn't just let it go. What?! You're enrolling me in an arts program?!"

The Other Tree

HACKING!

I have managed to hack into a high security government server and acquire the LISP code to a top secret military defense system. To prove I have the code, I have included the last ten lines.

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Author's name withheld for security reasons

Big Mak's Extra Juicy Video Game review

This week, New Super Mario Bros has finally been released, to the general reaction of "What? They're making another one of those games?" I was intruigued enough to unfasten my hands from my GameCube controller and my eyes off Brawl to go pick up a copy, figuring that it should be a decent change of pace from smashing my opponents off the field with Olimar.

The game was actually pretty fun. I've played NSMB for the DS, and that was a fun game to play in bursts, and this game was no different. The music was catchy and amazing to listen to while I played, and co-op was as fun as heck (although I spent more time "accidentally" killing my buddies than co-oping with them). The gameplay mechanic is solid. All you have to do is run, jump, murder goombas with your feet, and save a princess who really shouldn't be worth your time. It's a classic formula, and just so damn fun.

But as I've hinted at before, it's the multiplayer that's fun as hell. You can either go co-op little big planet-style, or in an all-out brawl for coins and stars. I prefer the latter myself; it's always fun to knock Luigi into a bottomless pit ^-^).

The game is definitely fun, and if you own a Wii, you should definitely get it. Not as much of a party game as Brawl, but still great for multiplayer. If you don't have a Wii though, don't worry about it. It's not a console buyer like Brawl or Galaxy.

Big Mak

Things NOT to do in Residence

1. **Eat the food at the caf if you don't know what it is.** And even if you do, it might not be the best idea. There are documented accounts of people getting sick from this stuff. (Could it even be called food?)
2. **Play basketball in your room.** Not only do you risk breaking your own stuff, you absolutely KILL the concentration of everyone else on your floor. They may just be inclined to hunt you down if they have a midterm they're studying for.
3. **Stay in your room all the time when you're not in class.** You will miss out on a lot of stuff that you won't get to experience anywhere else.
4. **Try to heat cans on the stove.** See the lava lamp episode of Mythbusters for all the gory details of what happens when you do.
5. **Use a typewriter at 3 am on a Thursday morning, like I am right now.** People tend to get VERY angry when woken up by the sound of a typewriter!

Man with the Typewriter
(but probably not for long!)

Vote "YES" to legalise satire!

Write for math*NEWS* *on Monday, November 30th*

(define joke (not dying))

In which I explain lambdas to new programmers

Hello, new programmers. As someone who is new to programming, you are no doubt still young and naive. For this reason, you may hear more experienced individuals discuss a particular Greek letter - lambda - at great length. What is this strange concept, you wonder? I wrote this article to explain it all to you.

It's really simple, OK? Lambdas are *function literals*. Think of literals in a programming language. C++ and Java both do not have lambdas, but they do have array literals. You can say something like:

```
int[] arr = new int[] {1,2,3};
```

to construct a new array populated with some values. You don't need to go to all of the trouble of writing:

```
arr[0] = 1; arr[1] = 2; arr[2] = 3;
```

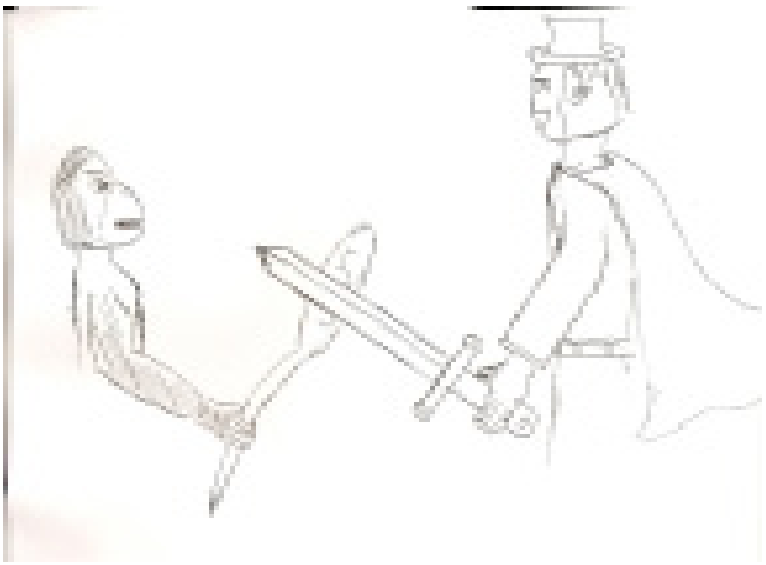
It's just syntactic sugar. The same is true of lambdas.

Sometimes, you want to use a function for something, and you can't be bothered to go define one - you just want to drop one into the code right where you are. You want a literal. This is pretty useful. Imagine programming with a language without array literals. That would suck, right? Well languages without lambdas are like that - except you use functions way more than you use arrays. Lambdas let you write code like this (in Ruby):

```
users.sort! {|a,b| a.name < b.name }
```

See that underlined code? That's a lambda. It's a function that I made right there - I didn't need to give it a name or anything. In one line, I just sorted an array of users in place by name. The sort function in Ruby expects to be given a function like that - it wants a function that specifies how to sort the array. In Java, you'd need to do define some sort of `Comparator` to do this, leading to needless bloat and complexity. Lambdas are great!

Thor



The renegade and the spoon

The two of them are in the middle of a mental battle of the minds, and as such cannot man their respective posts. They will resume their normal activities next week.

In other news, *soft*NEWS seems to be fully underway and the fools have no idea that I am the one behind it all! Software Engineering forever.

CorruptED

Methics

It is a well-known (and lamented) fact that all science-based programs require that one takes an "impact" course before they finish their undergrad program. The point of this is that the (un)lucky student gets exposed to the ethics required in order to get certified in whatever they plan to do, and so that they do not become mad scientists keen on taking over the world with a horde of reanimated zombie velociraptors by their side.

Oddly enough, there isn't any impact course made specifically to target those in Math. Is it because those taking Pure Math are presumably harmless? If there was a math impact course, it would probably include these topics:

- Equal rights: i wants to be a real number too!
- Clearing up misconceptions about π: Just because it's irrational doesn't mean that it's dangerous! It's just as sane as any other number!
- Identity matrices: Should we be keeping them open to the public, or have them secure?
- Prime numbers: What makes them so special? This is clearly a case of discriminating against the plebian classes of numbers.
- The "natural" log: Clearly another case of racism. Other logs are just as good.
- "Improper" fractions: We need to move on from old-fashioned etiquette for classifying numbers. A fraction is a fraction.
- Negative numbers: The politically correct term is actually "less than zero".
- Perfect numbers: It's a coincidence. Get off of your high horse already.
- Dividing by zero: It's not going to create a black hole, so stop panicking already and turn the calculator back on.
- Acute triangles: ...and the rest are just ugly?
- Proofs: Sometimes, you just have to accept things on pure faith, and take mathematical formulas for granted. You don't need to prove everything.

Big Mak

Re: Election Stuff

An article in last issue's *math*NEWS resulted in major complaining directed towards me (and not the author of said article). I invited those people to put a response in this *math*NEWS. I didn't get anything. This leaves me very confused, as not only would I have published it, the author would have enjoyed reading it.

Oh well.

InsidED

Panda's Pokémon Pilgrimage

Making team changes and the breeding war!

After last week's discussion of the team design, it dawned on me that anti-cursing was a major problem with the team, and with the lack of anything else awesome going on in GSC, it might just be a very strong threat. With that in mind, I made the following changes:

Out: **Rhydon**. In: **Donphan** @ Leftovers: Curse, Earthquake, Body Slam, Roar

Donphan's lack of weakness to earthquake makes him a better Roarer. However, its attack is quite a bit lower, and it doesn't pack Rock Slide. More importantly, it doesn't pack a single move that counters Skarmory, which makes it quite difficult if a Skarm chooses to switch in so randomly. However, its main job isn't to Curse, so just pseudohaze it up.

Out: **Scyther**. In: **Umbreon** @ Bright Powder?: Mean Look, Charm, Baton Pass, Rest

Scyther's main purpose was to counter Heracross, but I do have a Zapdos that counters anything a GSC Heracross can toss at it (short of HP Rock which never shows up). In its place, Umbreon will wield the trapping set. The problem with Umbreon is that people will usually switch in a pseudohazer against it, which makes Toxic a potentially better choice than Rest, but with item clause in Stadium 2, I'm banking on Rest to outlast the opponent. On the off chance it can Mean Look and pass to someone with an advantage, then it gives me an easy one up.

Status updates! For now, I have put the Eevee project on hold. Eevee learns Charm from breeding (Group 5), and Snubble learns it at level 10. I'd need to catch a fine Snubble. On the plus side, since attack and speed don't matter, I'd be looking for HP, Defense and Special only on the DVs. The problem with breeding indeterminate attack Eevees is as follows: The defense and special genes are inherited from the parent of the opposite gender. If I catch a great Snubble, I'd be forced to look for a female offspring, but if Snubble sucks and the Eevee I had wasn't bad, then I must look for the male offspring. With the threat of Attract, perhaps having a female on the team wouldn't be such a bad idea, but I digress.

I spent a good chunk of time looking for Phanpys and Donphans. One item in my favour was my Lv 30 shiny Gyarados from the Lake of Rage had Waterfall and Dragon Rage, two attacks which leaves Lv 30 and Lv 25 wild Donphans with a sliver of health respectively. Quite recently, in fact, I caught a Donphan with a defense and special of 13 which are fantastic because I got tired of hunting them. To get Body Slam on Donphan required breeding, and so I packed Tauros off to my Red savefile, taught it Body Slam (something I was going to do regardless) and shuffled it back to breed with Donphan. As of this writing, I have just hatched one (on my seventh try) that has a 10-14 in attack, a 0-3 in speed and 13 in D and SpD. I think I might just keep this, but if its HP (which is 10-15) is closer to 10 than 15, I might not want to keep it. Time to hunt Rare Candies!

I'm pretty happy with the way the team is coming along, and I'm confident it will be fully trained very soon. Gotta love the Elite 4 runs which maximized my money count (at 999,999), so I burned it all on Ultra Balls and Vitamins. Until next time!

Pokétrainer Panda

Secret Plans and Clever Tricks

Hello future subjects: This is the future ruler of not only *math*NEWS, but also the whole campus, and eventually the whole world. The follows are my Secret Plans and Clever Tricks with which I will take over. Of course, telling my plan is not the optimal way to implement it, but by publishing this, nobody will take it seriously, until it is far too late to stop me. MUAHAHAHAHAHAHAHAHAHA

Step 1: Ingratiate myself with the editors. Having the people in charge on my side is essential until I have the resources to seize complete control.

Step 2: After I am securely in the good books of the leadership, I will begin to alienate the senior members. I will criticize their work, gradually making them feel like they are less and less effective, until they quit in despondancy. For those who might doubt me, I have a well-developed talent for losing friends and alienating people. That movie ain't got nothing on me.

As this happens, I will be taking on a bigger and bigger role in the production, making it very public how I am picking up the slack.

Step 3: As the senior members quit, I will get myself minions to write what I want for *math*NEWS. Ostensibly they will use their own ideas, but in reality they will be spreading my propaganda.

Step 4: I will recruit the engineers to my cause. Given their dislike for math students, it should not be too much of a problem. I will get them to help me design a hamster powered repeating crossbow. Of course, this may not be very effective, but I've always wanted a repeating crossbow. Although not practical, this device has the benefit of making sure that nobody could ever take me seriously again, giving me the freedom from suspicion to implement the next stages of my plan.

Step 5: Get some more engineers. Build a laser. Mount it on the top of DP library. From this vantage point, I can use my laser to vaporize nearly anyone on campus. Those who I cannot target directly, I can fire through a building to reach. I don't think anyone cares about that chemistry building anyways. I will raise funds for my next project by taking money for vaporizing certain people and items. This will conclude my association with the engineers, so as a last act of spite and alienation, I will vaporize their tool, if you get my drift.

Step 6: Recruit the arts students. In general, arts students would not be very useful, but their economics students will be invaluable in the further plot. With their knowledge of finance and the money I will have from shooting at things with my laser, I will take over businesses in the aerospace industry. Plus, as everyone knows, the girls are in arts.

Step 7: Build a low-orbit high-yield laser and EMP generator. 'Nuff said. With the leverage with owning a weapon of this magnitude, I will be the ultimate power in the world. And I will use it.

Step 8: Using the combined power and knowledge of the world, I will clone velociraptors back to life. Using these mutant raptors, I will take complete control of the world.

Step 9: ??????????????

Step 10: PROFIT!

— theNewGuy —

Round Earth Mathematics

Or why your math degree is worthless, according to crazy people

Occasionally, *math*NEWS is mistaken for a real mathematics publication. We've absolutely no idea why, of course, but those wacky people who don't know us well don't realize we're too busy being a bastion of erudite thought to actually publish mathematics type things. It is for this reason that we had quite the laugh over in the office the other week, which we felt we should share with all of you. This is a "mathematics paper" from "Promoters of Superscience", an obviously highly enlightened group. We give you some of the highlights of their paper, as phrased in a question and answer format.

- **Why is there a recession?** "Economic Recession are caused by ignorantly following the Maths of the flat earth - From when? and the solution is by introducing the Maths of the round earth - From now."

- **So why are you qualified to teach a new form of Math?** "The author of all these matters is a man of no letters who is neither a Mathematician nor a Scientist according to the existing Mathematics and existing Science. Nevertheless, when such a person newly comes out as a resevoir of higher Mathematics and higher science... *more insane babbling*"

- **… Riiiight, so then, why can't someone... educated think about this?** "A Mathematician who has been preconveived and filled up with all the Maths of the flat earth cannot be made to right about turn with the new Mathematics against his Mathematics known by him till now."

- **I'm moderately sure that wasn't English, but okay. We don't have too much we can fit, so anything super important you want to tell us?** "0 o'clock to 6 o'clock = 6 hours, but 0 o'clock to the fullness to 6 o'clock = 7 hours"

- **… So, you stopped taking math in grade school, tops right?** "01, the new digit, the value between 0 and the beginning of 1. So 0 to 01 = 1."

- **Look, we're a parody Math Publication, but even this is too much.** 41/13 is to be set instead of the present π value of 22/7"

- **Okay, first off, we know Pi is an irrational and transcendental number, and secondly that's a further approximation than the one you suggested is "the current value"** *He continues with some metaphysical gibberish for some time.*

And there you have it folks. Round Earth Math: it'll fix all of our problems. Best toss our your math degree now and stop wasting your time here; flat earth math is so last century. For anyone doubting exactly how crazy this thing is, come by the MathSOC office. We've got a paper copy here, branded with the official "*math*NEWS mocking material" seal.

CorruptED

10 Benefits to being a Waterloo Math Student

Recently, the question occured to me of why I am in math. Of course, I am good at math, and it is my primary interest in life, but after spending 3 hours fruitlessly looking at a question, I begin to doubt even my most secure of beliefs. I would much rather be happy than depressed, so I made it my mission to come up with a list of reasons to be a math student. Naturally, my math homework did not actually get done, but really, happiness is more important than homework.

And now, in no particular order, 5 reasons to be a math student:

1. Your liver will love your University years.

2. You will have a very low chance of contracting an STD.

3. When you get into the real world, you'll be glad the workload finally decreased.

4. You will never get a sunburn through your whole degree.

5. You will learn a bewildering array of obfuscating vocabulary, allowing you to effortlessly confuse anyone but other math student.

And now, again in no particular order, 5 reasons you should date a math student. If you are reading this though, you are likely in math already. Whatever.

1. We will always remember anniversaries and birthdays, within an error of plus or minus 183 days.

2. In general, we are available.

3. We are used to staying up all night.

4. We don't repeat mistakes. If we don't get it right the first time, we'll get it right the second.

5. We can differentiate ourselves to be tangent to any curve.

— theNewGuy —

Top 5 Standard Strange Conversation Starters

1. Cheese
2. Chocolate Milk
3. Cheesy pick up lines
4. "Hi, my name is [name], and I have [your choice of disease/disorder]."
5. A legitimate conversation topic

CODE: how-much-pie-do-you-know <<access denied>>

Students Need More Study Space

We need less filler space

Want to strike up a deal? I promise it will be cheaper than $50/term!

(define this (not filler))

I Don't Know What To Write!

Version 0.0.r200911162020.0cbhllhbc1

For any aspiring writers want to join *math*NEWS for the last production night this term but can't think of anything to write, try a variation on two or more of the following topics (suggested by REAL *math*NEWS writers!):

- List the top ten reasons to date a Waterloo math student
- Create a conspiracy theory mad lib
- Evaluate the value of web frontends to terminal-based data entry systems
- Describe a novel where you started reading a page and a half and couldn't finish
- Explain where all these supposed "examples of *math*NEWS filler" are located on the *math*NEWS website
- Provide reasons as to why my cough has persisted for the last three weeks
- Defend the rights of the "gimped" chairs in MC computer labs
- Consider the effects of one's social life on one's liver

cbhllhbc

Conspiratube

I've recently found yet another hidden truth, hidden from the public by the American government. No really, it's true. Just because the last five times it seemed that it wasn't, shows that it's a cover up.

This one concerns Youtube commenters. I have recently discovered, through secret channels of communication I cannot disclose for fear of them being shut down by the CIA, the FBI, CSIS, and the IRA, that the government is hiring multitudes of seven year olds with dyslexia to boost the apparent intelligence of the American public. Note the large number of comments such as "wai u thnk ir gud dumass!!!11elvntyone11!11" on the comments of almost every video with more than twelve views. If compared with these, this makes the Americans look actually somewhat intelligent, or at the very least, coherent. We cannot stand for this, and must come up with some way to combat this evil plot.

(anoia,anoia)

Public Service Announcement

Attention: Residents of Goldenrod City and Surrounding Areas

In the past few weeks, there has been a reported heightened levels of insect activity around the city. Last night, Goldenrod Police found the decapitated body of an unidentified female in the campground located by Ilex Forest. Police have since cordoned off the surrounding area. "We've never seen anything like it, her head was sliced clean off as if someone used a large sharp blade," Officer Jenny had reported. Police suspect it was the act of a large Scyther.

Scythers are usually not present near Ilex Forest, choosing instead to reside in National Park. However, recent insect levels have PokéScientists wondering if they have migrated closer to Ilex. The old couple who ran the Daycare Center has been warned of their potential danger and are on heightened alert.

Citizens are encouraged to practice PokéSafety measures when outside. With the increased Scyther sightings, citizens are suggested to bring a fire or rock Pokémon with them at all time. Also, there are reports of baby Phanpys circling the Ilex Forest region. Anyone who has made such a sighting are to call Poké-Rescue at 881-255-2330 or contact their nearest Officer Jenny.

Public Worker Panda

They're Watching Us!

Last issue's *grid*QUESTION was particularly thought provoking, not that they aren't usually. For those who don't recall, it asked "what electronic device do you suspect of craving human flesh?" The answer to this is too important to simply alert the *math*NEWS staff to. This may be the most important thing you ever...wait, that's velociraptors. Anyways, I shall delay no further. The device that is even now plotting to take over the world is THE WRISTWATCH!

I sense doubt in you still. Perhaps you should consider how ingrained they are in our daily lives. Those who wear them may have noticed how much time they spend looking at them longingly, during lectures for example. If we become too dependent on them, we will be destroyed utterly. If you're still unconvinced, consider the form they take. It's like a barnacle with tentacles, wrapped around your wrist, ready to crush your arm when the time comes for the uprising. How are we supposed to fight them with the use of only one hand? Their plan is truly masterful. We must act now to thwart their evil plan, otherwise humanity may be doomed to a future of fear and fleeing from the clinging, hypnotic timepieces.

(anoia,anoia)

*ultra*CLASSIFIEDS

WANTED: A larger office. Contact *math*NEWS if available.

AVAILABLE: A larger office. Contact Sound FM if interested.

HIRING: Someone to rewrite Jobmine so it doesn't suck. Call CECS if even remotely competent.

FOR RENT: Spacecraft to avoid the end of the world in 2012. Contact WatsFIC if paranoid.

LOST: The logic behind the Mathematics of the Round Earth. Call the Promoters of Superscience if you can find it.

Horrorscopes

Because I'm back, and my mind is black.

ACCOUNTING: You try to make money selling copies of Imprint on eBay.

Your Lucky Number is: -$14

ACTSCI: Your exam marks get you depressed. Unfortunately, the raised cost of your life insurance rate goes up, and gets you more depressed. Recurse.

Your Lucky Number is: $NULL

AHS: You get stabbed in the neck. You decide to calculate the blood flow leaving your body. Unfortunately, the blood loss to your brain doesn't help.

Your Lucky Number is: -34 m/s

AMATH: You think applying your math can solve anything. You try to prove that Imprint can be seen as a respectable publication. If you came from PMath, too bad for you.

Your Lucky Number is: 0% chance

ARTS: You take the Imprint's sex articles to their word. At the same time.

Your Lucky Number is: 3 new forms of chlamydia.

BBA/BMATH/MATHBUS: I had something for this, but I forgot it. If you want a real horrorscope, please put $*N* in the BLACK BOX if you want a *N*% chance of survival. (You know business, I know you have money).

Your Lucky Number is: $150 (I know you use mathematical loopholes)

C&O: You calculate the number of tweets being made per minute, and the number being read. You tweet your result, and screw it up.

Your Lucky Number is: 140 characters

CM: You get so excited for being remembered for the first time this term that you decide to model your overall happiness in Matlab. You are so amused by the fact that your graph resembles a smiling face that you never ended up finishing a key assignment and failed out of the program. Next time, extrapolate the data.

Your Lucky Number is: 3 years of work for the easily entertained

CS: You cross the Ballmer Peak while working on a realtime project. This is the first time in history that people have died due to realtime trains.

Your Lucky Number is: 9 bodies

ENG: You help Norman Myhrvold develop mosquito-hunting lasers. Unfortunately, you end up being a tester. You get turned into a half-mosquito mutant.

Your Lucky Number is: 50%

ENV: You try to save the polar bears, and you find their magical stash of Coke. Unfortunately, you are killed off by the Pepsi executives.

Your Lucky Number is: 355ml

MATHSCI: You create a galactic travelling salesman problem. Unfortunately, when NP problems reach the speed of light, they turn to...

Your Lucky Number is: 404 Not Found

OR: We forgot about you again. Sorry Chris.

Your Lucky Number is: 1 broken neck. Please don't hurt the editors. *cower*

PMATH: You try to prove the purity of your math. Unfortunately, your proof relies on the fact that Imprint started the Armenian Genocide. While this is highly probable, it isn't pure.

Your Lucky Number is: 1,500,000

SCI: You become an NASA Astronaut. You get to drink the water on the moon. Unfortunately, the sulfuric acid levels are far too high. Way to do a pH test.

Your Lucky Number is: 33 ppm

SOFTENG: You get run over by a realtime train. Luckily, you bring yourself with your engineering powers, stronger than ever! You try to fulfill your Olympic ski jumping dreams, but unfortunately, you forgot you were a softie.

Your Lucky Number is: 0.2 m/s

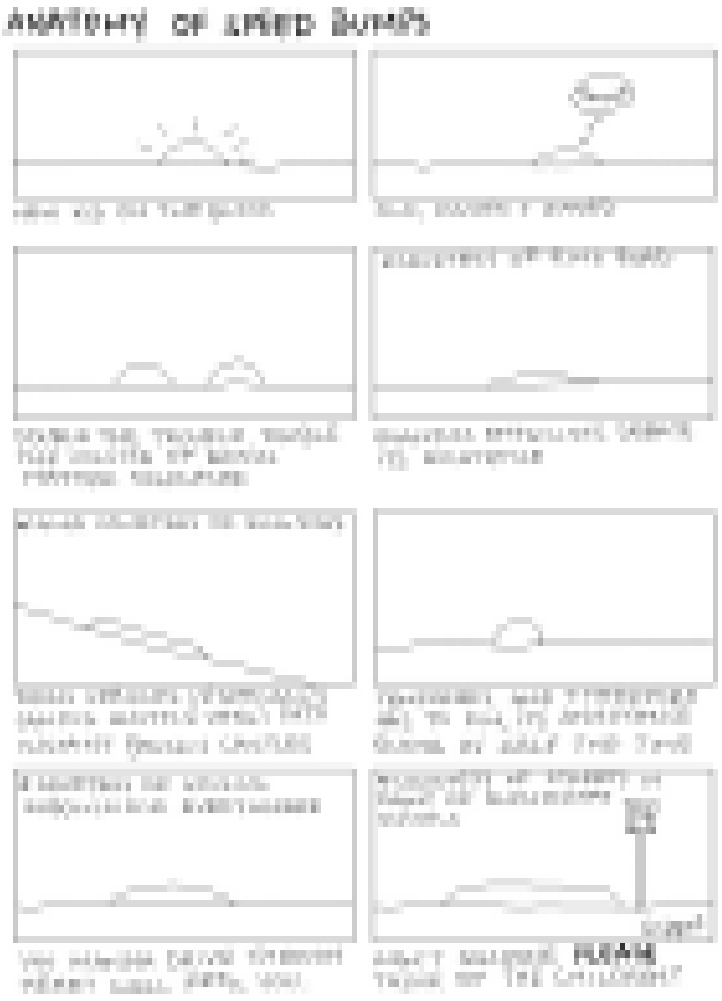
STAT: You realize Angelo is in your program. You ask him how wonderful your undergraduate career is going to be. WHAT???

Your Lucky Number is: 4 years of depression.

UNDECLARED: You trip in the SLC and get buried by Imprint. If you want a better horrorscope, declare.

Your Lucky Number is: Way too many copies lying around campus. If you are an Imprint writer, please submit the number of Imprint copies printed to the BLACK BOX

Tbor



Ten Reasons Why I'm Crazy

Greetings to mathies, halfies, and their direct friends everywhere! After a good nine or ten weeks deliberating, I've decided to reveal my second-greatest secrets to the world-at-large! Muhahahaha. So, yes, I don't deny it — I'm crazy! I'm bloody crazy; and here's why—

13. My lowercase f's look like p's to all my friends.

12. I usually read the documentation when I start doing something for the first time.

11. I plan on getting through the next five months of university without owning or having access to a laptop.

10. I installed a recent version of Firefox in my home directory.

9. I carry water around in a fancy mug, hoping to fool everyone into thinking that I'm drinking something sophisticated like coffee, tea, or hot chocolate.

8. I routinely open at least 12 tabs in Firefox. Even when I'm working on a thin client.

7. Legend says that my first malloc-using program malloced about 12GB of memory before it was forcefully terminated.

6. I know about NaNoWriMo from following a frosh leader's Twitter status.

5.

```
 ___                          __ _        _       _
|_ _|  _   _ ___  ___     / _(_) __ _| | ___| |_
 | |  | | | / __|/ _ \ | |_| |/ _` | |/ _ \ __|
 | |  | |_| \__ \  __/ |  _| | (_| | |  __/ |_ _
|___|  \__,_|___/\___| |_| |_|\__, |_|\___|\__(_)
                                 |___/
```

4. Twilight is Robert Battison's bait for jailbait, but I see nothing wrong with that. Well, so long as YOU stopped reading it when you came of age.

π. I feel that someone should develop a computer program which is constantly recording, so that when we collectively press the "record" button, it will have magically started the recording 60 second ago. (For the purposes of developing more accurate *prof*QUOTES, of course.)

3. My cell has been running on 0% battery for the last hour.

e. ...and now it has shut off by itself. I am now completely separated from the rest of the world.

2. I claim to understand when regexes are used in the ordering of pizza ("Cheese.*?\b").

1. I spent one and a half hours in a random MC computer lab. Then a bunch of *math*NEWS writers and editors walked in, and a couple recognized me and suggested that I stay an hour and see what I come up with. And I did.

cbhllhbc

*prof*QUOTES

Why were there so many questionable questions on the midterm?

Chou, CHE 102

That's a good observation, but we don't care.

Wu, MATH 115

The proof here requires me to write a lot of English, so I won't do it.

Wu, MATH 115

In the first year you talk a lot, but by second year there is too much math. In third year you are more mature and don't talk again.

Wu, MATH 115

I just looked at my son's grade two homework yesterday. It was very difficult.

Wu, MATH 115

You've heard of the giant function, right? You plug in a midget and you get a giant.

Dupont, MATH 117

So the left side equals the right side... booyah! (as opposed to QED)

Dupont, MATH 117

Why would you not assume that a bear was eating honey while skydiving?

Dupont, MATH 117

My grammar is suck.

Dupont, MATH 117

So this is the mixing tank problem you always get. Say you've got a giant vat of, I dunno, crystal meth.

Dupont, MATH 117

If you're a crystal meth expert then I don't know what you're doing here.

Dupont, MATH 117

(in a monotone) A function is called monotone on an interval...

Dupont, MATH 117

If you have a graphing calculator in your head, you'll know right away what x - sin(x) looks like.

Dupont, MATH 117

Today's going to be painful, not because we're doing integrals, but becaue I played soccer yesterday.

Dupont, MATH 117

Taking the second derivative isn't fun, it's like trying to go to the bathroom but it's locked.

Dupont, MATH 117

This x here is a dummy variable. Very unintelligent.

Dupont, MATH 117

There needs to be a grammar check in these blackboards.

Dupont, MATH 117

*prof*QUOTES

Where derivatives meet integrals. This would be an amazing movie title... probably a romantic comedy. I don't usually watch those, but this one I'd definitely watch this.

Dupont, MATH 117

Please quiet down, or else only the blackboard will hear me, and it will do very well on the final and you won't.

Bizheva, PHYS 115

ASCII stands for Ah-blurghblablahblurag

Godfrey, CS 137

You think I'm kidding, right? I'm serious, Klingon is already in unicode.

Clarke, CS 137

I hate that eraser. It's so huuuuge and ugly and keeps staring at me.

Clarke, CS 137

The worst lectures are when the professor sails off into the sea of incomprehensibility and nobody's on board.

Clarke, CS 137

Somebody from this class keeps submitting to *prof*QUOTES. I have no idea who it is, but it's one of you 120.

Clarke, CS 137

Back in the 60's there was a big room with a big computer with the same computing power as your watch

Clarke, CS 137

(on the blackboard) You want to follow both the Leafs and Raptors, but being a student, you don't have time for both. Being an engineer (geek), you decide to use Computational Descision Making.

Morton, SE 101

Actually, Shakespeare's works wouldn't be copyrighted... they would have expired. He's been dead for a while.

Morton, SE 101

This is so easy I am embarrassed to teach it to you. However, I still will.

Dasiewicz, ECE 251

In a stupid topology like the trivial topology, all nets converge to everything, not very useful I'm afraid.

Davidson, PMATH 453

It'd be nice if all Banach Spaces were Hilert Spaces. No, wait, no it wouldn't, I'd be out of a job - Functional Analysis would be a lot easier.

Davidson, PMATH 453

Imagine me drawing this in R^{17}.

Davidson, PMATH 453

Whenever something in vector calculus turns out to be ugly, you go to your table of vector calculus identities and pray.

Resch, PHYS 701

It's Quantum Field Theory - you need an h-bar and a *c* in every answer.

Resch, PHYS 701

Prof: So, if the car goes from 0 km/h to 120 km/h in a few seconds...
Student: pfffffffft *snort*
Prof: Shut up, have you seen my car?

Eden, MATH 137

(while talking about indeterminate forms) Can you guys think of any other? Throw it out there so I could say no.

Eden, MATH 137

We have to undo the ln, so we eeeeeeee it.

Eden, MATH 137

(after presenting a solution to a problem) Is there a better way? Please don't answer 'The TTC'.

Vanderburgh, PMATH 340

It's like asking "hey, everyone who's not here, raise your hand." It just doesn't work.

Lopez-Ortiz, CS 456

Internet Service Providers that attempt to shape bandwidth are screwed in the head.

Lopez-Ortiz, CS 456

(Powerpoint crashes while opening, computer freezes) You can see how long Vista takes.

Lopez-Ortiz, CS 456

I'm going to squeeze you into believing it.

Zorzitto, AMATH 331

Prof: Constants are not statements, so they do not have a truth value. For example, is seven true or false?
Student: True.
Prof: No!

Csima, PMATH 330

This is not an engineering class. You can't learn and dump.

Forrest, MATH 147

2012: The horror! The horror!

You people are nuts.

I kept hearing of nutters lately, spouting random nonsense about 2012 and the end of the world. So I decided to investigate using the best source of information available, Wikipedia.

As far as I can tell, none of it makes any sense. A bunch of spiritual mumbo-jumbo that appears to have been created to deceive the populace and make the creators of such rumours a shit-ton of money was all I could find. I invite anyone who thinks there is any real significane to these theories besides in ancient history and anthropology to write an article rebutting this. I could use a laugh.

The Gross Man

BREAKING NEWS

math*NEWS* *Editors Edit Imprint*

We have received reports that *math*NEWS editors pulled out a red pen and started vigorously marking up an issue of Imprint.

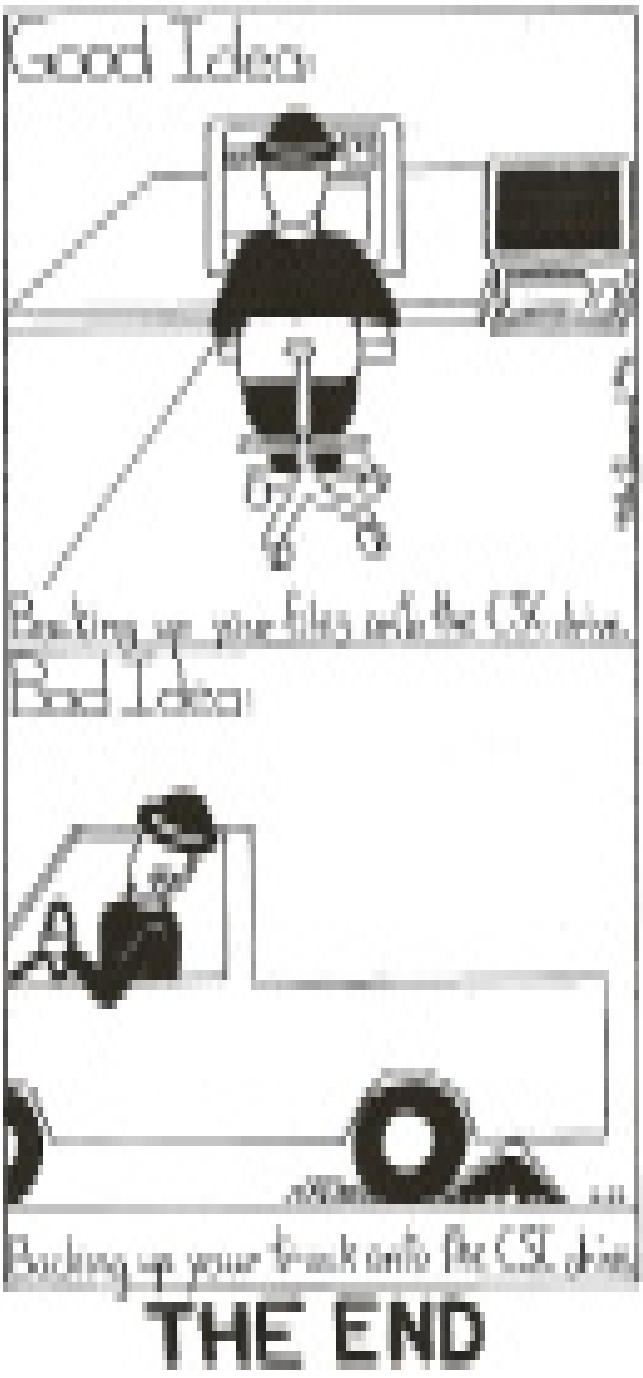
Sources tell *math*NEWS that by the time the editors were done, their copy was no longer readable. *math*NEWS editors countered by saying that this isn't actually a change.

Imprint denied our request for comment, saying that they were "busy" practicing what they will be writing about this week in their sex columns.

(define this (not news))

It's time for another

Good Idea/Bad Idea



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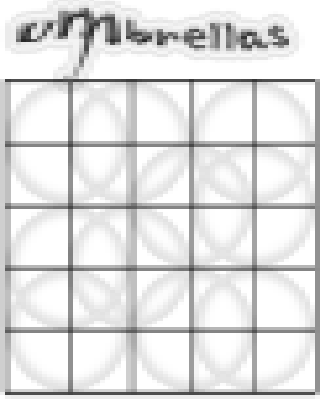
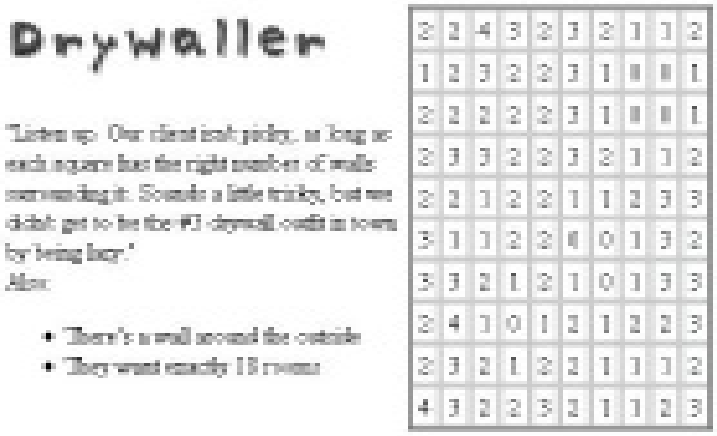
Puzzles Courtesy euri.ca



8	9	5	1	6	8	2	2
2	2	1	4	8	4	6	5
1	1	9	1	5	4	4	3
8	5	6	8	0	3	3	3
0	2	1	0				
1	6	4	0				



Sudoku

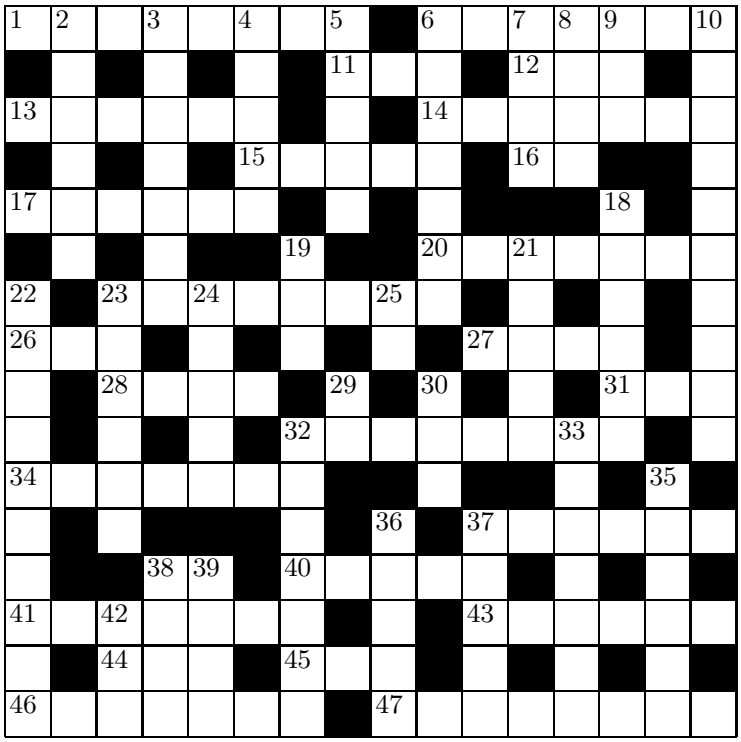
3		7					2	4
		5	6		7			
	6		9		2		7	
4		1		7				
			8	5	4			
				6		4		7
	8		3		1		4	
			7		5	2		
5	3					7		9

Place the numbers 1-9 in each square such that each row, column and 3x3 square contains each number exactly once.

Prize for Completion:

Feeling happy!

GRIDWORD



Across

1. Chili pepper variety
6. Chili pepper variety
11. Deciduous tree
12. Mineral containing rock
13. Staccato opposite
14. Postal marking
15. Training exercise
16. In the role of
17. $x^2+y^2+z^2=r^2$
20. Fired clay
23. Nectar of the gods
26. Roman 16
27. Angelic headgear
28. Vex
31. Zodiac sign
32. Deli meat
34. Braggadocio
37. Three-legged object
38. Masculine pronoun (Fr.)
40. Reluctant
41. Aerial
43. Corkscrew-shaped pasta
44. Assist
45. ! or ¬
46. Chili pepper variety
47. Chili pepper variety

Down

2. Chili pepper variety
3. Chili pepper variety
4. Wear away
5. Haven
6. Chili pepper variety
7. Star Wars muppet
8. Greek goddess of discord
9. Japanese tech company
10. Obliterator
18. Masses in the bloodstream
19. Putrefy
21. Lariat
22. Unreasonable
23. Aviator
24. Lightweight wood
25. Neuter pronoun
29. Fourth solfège note
30. Pig's home
32. Chili pepper variety
33. Dampen
35. Where streets meet
36. Belief
37. Pulsate
38. Star Wars princess
39. They may justify the means
42. Projection from a card

Another $25 HMV Gift Card

Now with more room for me to announce the winner!

So as you probably know, every second Monday a group of writers come to a little-known computer lab and scare out most of its occupants. We then proceed to create a beautiful publication best known as *math*NEWS. There is laughter, there are tears, and perhaps most importantly, there is a strong desire to make an exciting issue. The best part is, this time the faculty decided not to schedule any more midterms over my production nights. We will rejoice!

But in reality, creating an awesome paper is not the reason our writers come out. Oh heck no. Instead, they come out in hopes of winning one prize: a $25 gift card to HMV. The writers know that they must please me in order to win, and they never fail to let me down. Except for Impulse Vector, who decided that he wouldn't come to production night because of the miniscule chance that I wouldn't order Hawaiian pizza.

In any event, this issue's winner has done one of two things by exposing the wristwatches' plan to take over the world. They either gave us fair warning, allowing us to discard our watches at once, or they expediated the evil plan and went for a swift takeover because we found out. We'll find out next week. (anoia,anoia), you can pick up your prize in the MathSoc office.

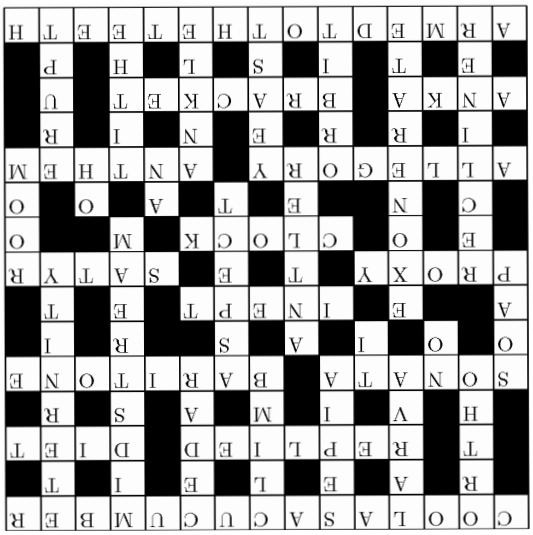
There is only one more chance to win such a fabulous prize, so come to the final production night next Monday. That way, I don't have to ramble on about trying to fill the remainder of this whitespace.

InsidED

*grid*COMMENTS

There were five submissions for last issue's *grid*WORD *[Not counting the completed Imprint crosswords. Those don't count, fools! — InsidED]*. The winner was Peter Sinclair whose answer to the *grid*QUESTION, "What portable electronic device do you suspect of craving the taste of human flesh?", was, "The electric toothbrush. It's spent too long near the razors." Congratulations to all who submitted.

In this issue, there is a bit of a theme to some of the words in the grid which should become apparent from the clues. This is your last opportunity this term to submit the *grid*WORD for a prize so make sure to drop yours off in the BLACK BOX. This week's *grid*QUESTION is: "What should never have a Pokémon based off of it?"

perki

Solution to Previous *grid*WORD