

math NEWS

Volume 113, Issue 2

Friday, May 28th, 2010

Political Whining and Socialism Strike!



The Chevron

Rises Again!



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lookAHEAD

mathNEWS

May 28	Issue #2 gets rushed to press
June 7	Production Night #3
	Join us in MathSoc at 6:30
June 11	Issue #3 leisurely strolls to press

MathSoc

May 28	Council nominations due
Tuesdays	You lose the game
Thursdays	You watch a movie

CECS

Ongoing	Interviews
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Faculty of Math

May 31	Last day to pay tuition
June 7	Fall enrolment appointments
June 21	Winter pre-enrolment

Miscellaneous

June 1	Madaraka Day in Kenya
June 6	56 th anniversary of D-Day
June 12	Philippine Independence Day

Student Developer Network

Does your code have more “class” than you do?

Do you want to write applications to help out other students?

Are you a Ruby on Rails developer? Are you a UI designer or a documentation writer? Do you want to help test new tools?

Join the FEDS Student Developer Network!

The Federation of Students is looking for help developing open-source apps to serve students better.

Have you seen the FedBus ticketing site? (<http://fedbus.feds.ca/>) It's awful. We need your contributions to make it better. As part of this project, we're going to be offering software bounties for the top contributors.

Visit <http://develop.feds.ca/> to find out more!

(Yes, right now we're only doing Ruby on Rails, because it's what we know and are set up to deploy. We're looking at adding other frameworks in the future.)

Eric Gerlach

Network Administrator, Federation of Students

ISSN 0705—0410

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Pulling a Tuesday all-nighter: Joe, Jeff and Harrison

mastHEAD

Wherein our writers say offensive things and we laugh

We here at *mathNEWS* like to think ourselves a politically involved bunch. Sometimes, we read political cartoons for a few seconds before moving onto Garfield! So, we were all very happy about the return of the Chevron and its yelling about politics, since the only thing that's even more entertaining than lampooning politics is lampooning people who get upset about politics! Plus, of course, we got sufficient mentions of communism to remind us of other political systems, my favourite being CorruptED-tatership.

Unfortunately, only *mathNEWS* runs under a Editor-tatership. For the rest of us, we're a ... well, we have a queen who ... What does she do again? Well, she's coming to visit, so that's something. Which brings us to our *mastHEAD* question this fortnight: What do you plan to do when the Queen visits?

8-Ball (Her mom), perki (Write more grids), Megaton Panda (Her dad), snippet (Leave the country), Lich (Go and say Hi!), GroovyED (Punch a member of the Monarchist League of Canada), InsidED (Take my rightful place as KING!)

CorruptED
(Supervillainy!)

MGC Sez

Dear Class of 2011 (and friends)

Think you're awesome? Come join the Math Graduation Committee (MGC) and help make your grad ball and yearbook just as awesome as yourself! Or help us with fundraisers so we can reduce your grad ball ticket prices! Even if you're not graduating in 2011, you're more than welcome to help out. Just drop us a message or come and see us in our office when the door is open.

And don't forget, grad photos are due very soon. We're doing things a bit differently this time, so we will be enforcing earlier deadlines to ensure that all photos reach the yearbook team nice and early so that they won't be rushed at the end of the year. The deadline for those who won't be around in the fall term is the **end of July**.

It's easy to contact us:

- Website: <http://mgc.uwaterloo.ca>
- Facebook: UW Mathematics Graduating Class of 2011
- Email: uwmgc2011@gmail.com
- Office Hours: TBD

I promise we don't bite. Really. I'll even make an effort to be nice if it's for MGC.

Your friendly neighbourhood MGC chair
aka the girl with a temporary Scottish accent

Games Sez

Hello Mathies! Do you like board games? Do you like free pizza? Do you find yourself wishing for some marvelous activity combining both of these noble pursuits?

Well look no further than the weekly MathSoc Games Nights, every Tuesday this term at 7:00 PM in the Comfy Lounge. Now with twice the number of time-travelling dinosaurs as the other leading brand!

Ian and Amal
MathSoc Games Directors

Prez Sez

Alrighty folks, it's that time again.

More hundred-word blurbs from your exec team. However, as everything I've been doing since we last spoke has been immensely confidential and top secret (read: I eat cheetos on the couch), let's do one of those awesome Facebook surveys instead.

Any names your parents were thinking about that you would prefer?

Ramon.

If you had to pick one outfit that you currently own to wear for the rest of your life, what would it consist of?

Tight red pants stolen from Mubarak, one of Drew B's baggy t-shirts, and Tom's Chainsaw hat.

What do you think is going to happen to you after you die?

Everyone else will be 'Left Behind'. (thanks Kirk Cameron)

What is one thing [appearance-wise or other] you would change about yourself?

Reduce the ridiculous growth rate of my facial hair.

What movie can you quote every line to?

City Lights.

Well, I hope this has been marginally more enjoyable for you than it was for me. 'Til next time.

Kenny Kou

MathSoc President S10

prez@mathsoc.uwaterloo.ca

VPF Sez

Hello wonderful Mathies!

Lots of things happening these next coming weeks. MathSoc Refund Forms and Mathletics forms are now closed and have been since May 21st. New items are still coming to the CnD, including our back-by-popular demand iced cappuccinos! The CnD will also be accepting Visa & MasterCard along with Cash and Debit as of the first week of June. MathSoc will soon be accepting debit as a form of payment too! That's pretty much it as per finances.

Prashant Kumar Patel

VP Finance S10

vpf@mathsoc.uwaterloo.ca

VPA Sez

Hello fellow mathies! I can't stay long so I'll keep it simple. Exam bank work is moving along, and I even have a couple more now. In the UAPC meeting we discussed the possibility of changing CS137/138 for SE and decided that there will no longer be any Scheme. Those of you that are excited about that, it won't be put into effect for a while. Anyways, I've got nothing else to say except to submit your exams to me by either dropping hard copy off at the mathsoc office (MC3038) or emailing me a digital copy at vpa@mathsoc.uwaterloo.ca.

Andre Magalhaes

VP Academic S10

vpa@mathsoc.uwaterloo.ca

Write for mathNEWS

It's bloody easy!

VPAS Sez

Hi dearest mathNEWS readers,

It is your lovely VPAS here again. Now that we have all directors in motion, you should come to Games Night every Tuesdays, Movie Night on Thursdays, and we're also planning great social events for you. If you really like to help out in planning events, please don't hesitate to contact me at vpas@mathsoc.uwaterloo.ca and I'll get you in contact with our lovely social directors. Again, just like what I said in my last entry of mathNEWS, if you do have ideas, just tell me. I promise that I don't bite.

Joycelin Karel

VP Activities & Services S10

vpas@mathsoc.uwaterloo.ca

CRO Sez

Empty Council Is Empty!

So I was doing the math last week, and I learned that more than half of the seats on MathSoc Council are vacant! Seriously, what gives?

Do you want to help make MathSoc better for everyone in math? Do you have ideas that can make the Society better? Well, your chance has arrived!

Nominations for the following (voting) seats on the Mathematics Society Council have been open for the past week:

- Applied Mathematics (2 seats)
- Computational Mathematics (1)
- Computer Science (5)
- Computing and Financial Management (1)
- Math/Accounting (1)
- Math/Business Double Degree (4)
- Math/Business Single Degree (7)
- Mathematics General (1)
- Pure Mathematics (1)
- Statistics (3)
- Software Engineering (3)
- Officially Undeclared (Term 2A or above) (11)

If you are enrolled (or can show proof of intent to enroll) in any of the above plans and want to represent your peers to the Mathematics Society, you have until 4pm **today** to submit a nomination form. You can pick up a form outside the MathSoc Office (MC 3038). As well, if you have any questions, send me an email.

Please help me to fill these empty seats!

Joe Collins

MathSoc Chief Returning Officer

cro@mathsoc.uwaterloo.ca

And Now For A Statistically Significant Event...

Recently, the Stats Club has reopened it's doors. We have high confidence that within this term we will hold a prof talk, an R tutorial together with BIC, and a social event. If you like stats then this is a chance to do statistical learning with others of the same interest. We heartily welcome volunteers to help run events and invigorate the community, as well as anyone who enjoys statistics.

Stats Club Exec

WatSFic Sez

Hello from the Waterloo Science Fiction and Fantasy Club for Spring 2010. We're running a games day on Saturday June 5th, starting at noon in the Comfy Lounge in MC. Besides this, we're have meetings every Wednesday at 6 PM in MC 2017 to discuss business and plan future events, as well as watch movies every other week.

We are looking for writers for our hopefully annual D&D tournament. If you are interested, please email watsfic@gmail.com to get information about how you can help the process along. We'll be needing playtesters and DM's to run the game mainly in the Winter 2011 term.

Also noted are the biweekly magic games and Living Forgotten Realms events being run on campus. For more information about this and other events and to read about our extensive library, visit our website at <http://www.watsfic.uwaterloo.ca/>. Please come out and join us, or even visit us during our office hours at SLC 2130!

Harrison Gross
WatSFic Vice President Spring 2010

ElseWhen

25 Years Ago in mathNEWS

This could just be me having a dirty mind, but at first glance, the cover looked like two people doing something naughty. Then I realized it's The Thinker statue introducing us to Volume 38 Issue 2 on Friday [sic] May 24, 1985.

Sadly, there's not really a standout article, so I will give you a summary instead:

- Someone calls the *grid*WORD frustrating, and links it with MathSoc looking like a clique. Some things haven't changed.
- An in-depth discussion on cryptography that I don't have time to read.
- Over 50% of third-years voted for their reps. Wait... did I read that right?

InsideR

News from Off Campus

Quit Facebook Campaign Attracts Thousands

A grassroots campaign advocating for users to delete their Facebook accounts has nearly 15,000 set to do just that on Monday.

Matthew Milan and Joseph Dee, both of Toronto, launched the Quit Facebook Day initiative nearly two weeks ago. They have expressed concern over Facebook's perceived lack of respect for users' privacy. They say that with every new change to Facebook's privacy policy, users have to opt out of making their information public, as opposed to opting in. They also see the complexity of the site's privacy settings as something that the average user would not be able to fully understand.

Privacy concerns exploded earlier this year when Facebook introduced their newest service which allows third-party websites to obtain information about you from your profile. The site continued its precedent to have this enabled by default, a move described by founder Mark Zuckerberg as a move towards "a web where the default is social." Critics, including the European Commission, are concerned that users are losing control over their own data.

While the number of people signed up for Quit Facebook Day is small in comparison to the 400 million estimated people using the service, Zuckerberg appears to acknowledge that their privacy settings are too complex, and is working on simplifying them. That said, he notes that half of users have changed their privacy settings since the change in their privacy policy, something he sees as acceptance.

Queen Elizabeth to Visit Waterloo Region

Queen Elizabeth II will be visiting Canada late next month, the Prime Minister announced last week.

The Queen, who reigns over the entire British Commonwealth (including Canada), will be visiting the country for 9 days from 28 June to 6 July. It will be her first visit to Canada since 2005, when she visited Alberta and Saskatchewan. For this trip, she will be celebrating Canada Day in Ottawa, attending the Queen's Plate at Woodbine Racetrack in Toronto, and making stops in Halifax and Winnipeg. She will also be taking a tour of Research In Motion's assembly line on Phillip Street in Waterloo on 4 July.

There are also unconfirmed rumours that she will be announcing the next Governor General of Canada, who acts as her official representation in Canada. The current GG, Michaëlle Jean, was appointed to the post in 2005 by the Queen, and several names have been floating around for who will take her post later this year.

Talk Show Host Pokes Fun at K-W Parade

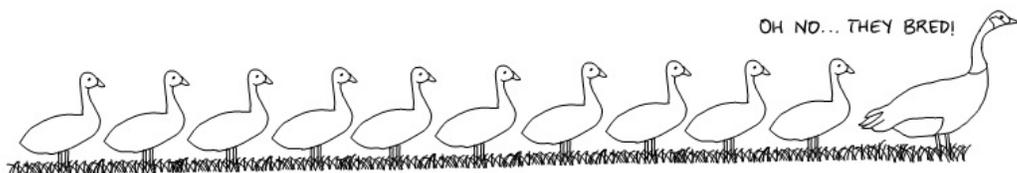
Organizers of K-W's annual Oktoberfest are trying to get talk show host Ellen DeGeneres to marshal this year's parade, after a Kingston viewer sent her photos from the parade.

"The lion looks good from the front but I was surprised to see how it looked from the back," DeGeneres read from the letter she received. The front of the lion looked fine, but when viewed from the back, it more closely resembled an erect penis.

Apparently organizers have been hearing this for several years, but this was the first time that it made national headlines. A Facebook Fan Page trying to get DeGeneres to marshal the parade has over 21,500 members on it, but it's not clear how many people it will take for her to come to this fall's parade.

InsideR

with files from BBC News,
CTV News and The Record
Twitter: @mN_InsideR



A Response to the Critic of “Confessions of an Actuary”

We at *mathNEWS* have recently received a complaint concerning the “Confessions of an Actuary” article in the last issue of *mathNEWS*. The complaint referred to the fact that we at *mathNEWS* supposedly compared the actuarial profession to nazis.

The first problem of this is the writer of the article made this exact quote, “Or for those of you who follow the right wing media, I am the communist nazi regime that is attempting to take away your liberties and freedoms.” This clearly implies that the writer does not actually think that actuaries are nazis, and is only referring to the fact that actuaries could be some of those who would be implicated in the “death panels” of FOX News and their ilk.

The second problem is that the writer is an actual actuary. Unless they want to be scorned almost universally, it would not behoove them to compare themselves to nazis. Besides this, the entire point was meant to poke fun at the right wing media. It was meant as humour, and was not meant to offend anyone but those who follow said media religiously.

In conclusion, your criticism is invalid. If we at *mathNEWS* had thought it was in terrible taste, we may have censored it, but then only after debate, as satire may be offensive. We regret that you are offended, but the editorial team is in agreement that *mathNEWS* will not apologize for publishing said article.

GroovyED

Dear Imprint

Really. Latin Man Fever. I thought mathNEWS printed everything.

Disclaimer: This piece may be a direct reference to a ‘movie review’ published in the Imprint last week. If you haven’t read it, don’t think you need to read it. It might scar you.

The back story:

I was skimming through the Imprint the other day, trying to find more reasons for the closet gamer to come out of the closet and admit that the games he reviews are the ones every gamer already has. I turned the page to find what appeared to be the word Imprint covering a man’s genitalia.

Really Imprint??? You knowingly publish a ‘satire’ that isn’t funny about pornographic material and think that your disclaimer saves your ass from being liable for looking stupid. I think that without any decent sex therapy article in this issue, they felt they needed to replace it... with the next closest thing? A play-by-play of gay porn? Really? Now maybe they read the title of my article from last term and thought they could match the outrageousness of it without actually reading the article. Imprint seems like a bunch of reasonable people.

In conclusion, Imprint, congratulations for besting us at *mathNEWS* and crossing that line that no decent publication was ever supposed to cross and knowingly publish a type of erotica (ignoring our odd-publishing of the CS Club’s fanfiction, which gives only the software hard-ons). Must be part of our deal in stepping into their ‘real news’ market.

Tbor

Thor’s CS Problem of the Fortnight

Sinking the Battleship of Computer Science

Last Fortnight’s Question: Pretend that you are the network engineer of a telephone company. You’ve decided to expand your operations to a new region, and you need to roll out telephone service to a number of new customers. You’re given a list of customers and their locations, and your job is to lay wires to each of the customers’ homes so that they’ll all be connected to the central switchboard. How would you determine a wiring scheme that uses the least wire possible?

Its Answer: This problem is an example of an application of a minimum spanning tree. This is a tree that takes a connected, undirected graph and represents the spanning tree of minimum weight for the graph. Two classic solutions to this problem are Kruskal’s Algorithm and Prim’s Algorithm. Both of these algorithms require $O(E \lg V)$ time in the simple case of being implemented for an adjacency list. A faster algorithm for the problem is Chazelle’s Algorithm, which is almost linear in the number of edges (it’s linear times the inverse of the Ackermann function, which grows really, really slowly).

This Fortnight’s Question: Every year in the Hundred Acre Wood, there is the world-famous Race Around the Wood. In this self-descriptively titled race, participants, perhaps not surprisingly, are required to race each other around the forest. However, the race organizers have a problem. The forest in question tends to change in size a lot over the course of a year, with new trees springing up and old trees falling down. This has made keeping track of the length of the race quite challenging, and leads to comparing the results year to year being almost impossible. This is where you come in. The race organizers want you to figure out how long the race was every year for the past 25 years, so that the greatest racer of all time can be identified. Luckily for them (and perhaps unluckily for you), the Hundred Acre Wood Historical Society has exhaustive records describing the forest over the 25 year time period in question. These records just happen to include the precise location of each tree in the forest on the day of each race. Given the locations of each tree (x and y coordinates) for each race day, how can you determine the length of the Race Around the Wood for each dataset?

Thor

Money Missing from MathSoc Office

UW Police were called to the MathSoc Office on Tuesday morning after hundreds of dollars were reported missing.

Details were still sketchy as of press time, but *mathNEWS* has learned that the amount of money missing is in the range of \$160. Sales of all items from the MathSoc Office were suspended while inventory was being checked.

The executive committee is working on a new cash and inventory control system, the details of which were not available as of press time.

InsideR
Twitter: @mN_InsideR

Interesting Math

The Ham Sandwich Theorem

Hugo Steinhaus, a great mathematician who made significant contributions to analysis, once posed an interesting problem that I will explain in the following way. Suppose we have a sandwich made from bread, ham, and cheese (yes it's called the ham sandwich theorem, but ham goes so well with cheese). Unfortunately, the sandwich was made fairly sloppily such that the ingredients aren't perfectly lined up, and the ingredients themselves are somewhat lumpy and have non-uniform thickness. Is there a way to cut the sandwich with a single knife cut (i.e. plane) so that each piece contains the same amounts of bread, ham, and cheese? The answer, surprising or not, is yes.

This problem is not limited to three dimensions — the two-dimensional version is sometimes known as the pancake theorem, but I prefer 'pancake problem' for the alliteration. Suppose we have two pancakes, which for the sake of this thought experiment are infinitesimally thin yet not necessarily round. Can we divide both pancakes with a single cut (i.e. straight line) so that we divide each pancake into halves by area? As in three dimensions, the answer is affirmative. You may be able to see how this relates to the ham sandwich theorem, and a more general theorem holds: given n measurable objects in n -dimensional space, it is possible to divide all of them in half (according to measure) with a single $(n-1)$ -dimensional hyperplane. Here, "measure" refers to a sophisticated mathematical concept that I sadly do not have time to explain here, but you may regard it as a notion of size, such as area in two dimensions and volume in three dimensions. 'Measurable' refers to having a well-defined size, and we may want to restrict our attention to objects with finite measure if we want to have a good definition of "in half".

There is a nice proof due to Banach, based on the Borsuk-Ulam Theorem. We will consider the case of three dimensions, although a similar proof will work in general. The Borsuk-Ulam Theorem in this specific case tells us, informally, that at any given point in time, there are two antipodal points (that is, completely opposite points) on Earth's surface that have the same temperature and pressure, which relies on the Intermediate Value Theorem that you may have seen in your first Calculus class.

Let us now turn to the task at hand, proving the Ham Sand-

wich theorem for three dimensions. Consider a sphere centered at point O , and assign to each point P on this sphere a plane p perpendicular to OP . Suppose we have three sets A , B , and C which we intend to bisect, with finite (non-zero) measures a , b , and c respectively. Suppose we have a plane q parallel to plane p . Define the *upper side* of q to be the side that corresponds to the side P of the plane p . We further require that the measure of the portion of A on the upper side of q be $a/2$. Such a plane q exists; intuitively we start with the plane on one side of the object, and continuously translate it to the other side, then choose the position in-between that gives a precise bisection of A using the Intermediate Value Theorem. Of course, there are difficulties in the case of unbounded (yet still finite volume) objects, but we tactfully avoid this issue. Now consider the volume of the portion of B on the upper side of q to be temperature at P , and let the volume of the portion of C on the upper side of q to be the pressure of P . Applying our version of the Borsuk-Ulam Theorem from the previous paragraph, we can get antipodal points P and P' with the same "temperature" and "pressure". However, the same plane, say q_0 , corresponds to the antipodal points, thus it not only bisects A , but also B and C .

Unfortunately, like many theorems in pure mathematics, this is an existence theorem — that is, we only know there exists such a cut or division, but not where to make it. So the next time you want to split that ham and cheese sandwich precisely in half, I suppose you'll have to approximate, but be at ease with the knowledge that a solution exists.

Vince's problem of the issue

Let us consider the game of "connect-the-dots": two players are presented with n dots, and take turns joining two distinct dots that have not already been connected (notice this produces a simple graph at every step). Whichever player adds the edge that makes the graph connected loses the game. Who (first player or second) has a winning strategy if you start with 5 vertices? How about 6 vertices?

Vince Chan

v2chan@math.uwaterloo.ca

FARMVILLE



Panda's Pokémon Pilgrimage

Back from the Pokégrave!

Wow, that was a long long break, wasn't it? I know, I know, I promised to keep it going last term, but something came up, I swear! Anywho, last we left off, my goal was to raise a team from scratch that will challenge Pokémon Stadium's Gym Leader castle, and I've been working hard at it! (Sorta!)

The Rundown:

Ok, here's the scoop: I've targetted a team of six of the following:

- **Zapdos:** Drill Peck, Thunderbolt, Rest, Sleep Talk
- **Tauros:** Return, Earthquake, Rest, Sleep Talk
- **Snorlax:** Curse, Double-edge, Earthquake, Rest
- **Slowbro:** Counter, Surf, Thunderwave, Rest
- **Umbreon:** Charm, Mean Look, Baton Pass, Rest
- **Donphan:** Curse, Body Slam, Earthquake, Roar

The opener is standard, Zapdos does demolish most of everything that's common as a starter. The rest of the Pokémon all have an endurance theme to them, which was the way of the metagame way back then. One prickly problem is that Stadium 2 forces you to fight with only 3 creatures, which becomes difficult if I need to cover for a potential threat. A Heracross weakness practically implies Zapdos or Donphan must be present in every battle, so the other 2 have to come from the rest of the pool. As well, I wonder how well Umbreon's lack of offense will fare here on a shortened bench.

On the actual catching front, I ended up settling on a **Phanpy** that wasn't horrible, I think it had good HP and attack, and a decent enough defense, or so I thought. However, **Eevee** turned out to be a real pain. To start, I needed Charm, so I had to catch Snubbulls to father the child. (The child's species is the mother's, and the moves are passed by the father) However, the female Eevee I was working with had a crappy defensive DV (which is passed onto the opposite gender child), so I needed Snubbull to have a good defense (And pretty good special, though it has variance so I'm aiming for 7,8 or 13-15 range). After running into a lot of Snubbulls, I finally catch one with 15 defense... but is female. That doesn't help, so I had to resort to looking for a Ditto. Turns out the best Ditto I owned was one with only a 13 in defense, but it'll have to do. Tossing the Snubbull with the Ditto gave me a decent enough offspring, which I then used to breed with the Eevee... Until I realized that Eevees were ridiculously overbearingly male. A good 10 eggs later, I finally got a female Eevee, which... didn't suck! Hooray!

Now that I have all of the parties involved, it's time to get them to Lv 100! (Zapdos is already done, so just five to go!) Updates... coming next issue!

Pokétrainer Panda

Road Closure

Construction to close part of Ring Road

Ring Road between the Psychology building and Needles Hall will be closing from June 10 to July 12, presumably because of work on the Environment 3 building. Please plan an alternate route, such as the east side of Ring Road.

The sign on Ring Road

Socialism! The Return of The Chevron!

As reported by a crazed Fox News Escapee

Socialism! As many of you may have noticed last Friday, a strange paper called The Chevron was found around campus. This *paper* tried to claim that our most righteous and obviously fair and balanced campus media is somehow lying to you. You know what I think? I think this is leftist propaganda!

Digging through the top secret archives of papers on campus, I have discovered that the Chevron was originally closed down in the 70s over highly suspect circumstances. Apparently, they had ties to ... Communism! [They also used to write hate mail towards mathNEWS! How could anyone do such a thing! — CorruptED] Clearly, they have come back only to once again bathe our great campus in the red looming menace that socialism brings.

So I ask you, my fellow ... fellows, do not be taken in by the lies of The Chevron! Do not believe them when they *expose* student government apathy. When they argue against what they call "Censorship", which we all know is protecting the wholesomeness of the student body. After all, who do you trust more? The Chevron, or the always Fair and Balanced me?

Glenn Beck

8 Things about Justin Bieber that you didn't know

And I was like Baby, baby, baby ooooooh

1. Bieber grew up in Stratford, Ontario, and they are all glad that he's since left.
2. Stratford now has a tour of Bieber's youth, where you can visit all of Bieber's old haunts, or stay away from them if you were smart.
3. Was ranked #7 in a recent top 50 list of hottest women in Hollywood.
4. His first kiss happened at 13, and then he went and wrote a song about it. Kinda like... Every other angstty teenage artist.
5. His most embarrassing moment was breaking his foot on stage during a song. For everyone else it was going to his concert.
6. Can solve a Rubix cube in under a minute. A lot of teen girls wish they were that Rubix cube.
7. Wears 7 and a half size shoes. You know what they say about guys with big feet...
8. His only weakness is claustrophobia. That's right. Only.

A Solution to a Physics Problem

Problem is from The Chevron Volume 1, Issue 1.

To: J. Robert Oppenheimer

We have an answer to your problem. Miracles caused the potential energy to disappear. We have waxed philosophical about this before. Also of note, if you can tell the President of Physics, the Dark Carnival has all of the Dark Matter that you've been looking for for the last fifty years.

Insane Clown Posse

Chevron Rundown

A possibly inaccurate history of the Chevron.

So this paper called the Chevron showed up lately. People might be wondering: what the hell is this rag? It appears that an anonymous person is publishing a paper bearing the same name as the student paper from the 70's. There has been a large word of mouth among the editors telling the "legend" of the Chevron.

While I could get semi-factual information from the *mathNEWS* of yesteryear, laziness overtook me during a search of the archives. So instead I'll tell you what I've heard.

Feds and the Chevron in the past have had a stained past. Many of the writing and editorial staff of the Chevron turned out to be members of the Anti-Imperialist Alliance, a group that Feds believed was exerting a radical influence over the press. There was a large scuffle over them being locked out of their office and the end of the whole affair was the creation of the Imprint as the new Feds-recognized student newspaper. Intermittently, they ran as "The Free Chevron", emphasizing their right to the freedom of the press. During the aforementioned scuffle, the Feds president ended up being punched out by a Chevron writer.

Other things of note were rocks through through the Chevron window by Feds exec at the time, supposed embezzlement by the Chevron editors and other rumours. A noted reputable link that will likely be more factual and informative than this article is located at <http://www.bulletin.uwaterloo.ca/2002/jun/21fr.html> under *Chevron alumni mark 25 years*. Do not trust what has been written here, it's just hearsay I remember off the top of my head.

GroovyED

All information was received by word of mouth.

*prof*QUOTES

[on the phone] Hello? I'm in a lecture. I've got 70 students staring at me. [to class] Rebecca, my daughter, says hi to all of you.

Ward, ECE 454

If you're in ECE you can get away with it while a Fortune 500 company does not. I guess they have a reputation to maintain whereas we don't.

Ward, ECE 454

We don't like when students die in class. It's a lot of paperwork to fill out.

Ward, ECE 454

Students dying in class isn't the worst thing that can happen. Killing them would be much worse.

Ward, ECE 454

I'm not thin and I'm a prof. Does that make me thick?

Ward, ECE 454

Smart people have a very clean desk. Please don't come to my office, it's a mess.

Ward, ECE 454

[on threading] Say I want the kids to mow the lawn, but they're all playing video games. I then make a baby, have it mow the lawn, then I shoot it.

Ward, ECE 454

Date-Less Dating Advice Guy

Dating Advice that's Very Nice

Welcome back to the friendly dating column! I'm still here, your loyal date-less loser writing to help all you other date-less loser become date-full winners! Yeah! Here we go:

Hey date-less guy, I think your column is sexist and chauvinistic and disgusting and you should be arrested and your testicles should be removed and you should die and burn in hell for all eternity because of your anti-women and anti-feminist ideas and your poison-spreading penis should be removed permanently [etc. etc.] **BURN IN HELL!!!!**

Response: In the words of Kai J. W., that person who hanged all those random SORRY posters all over the MC the other day, I'm 'truly and deeply sorry'. Bitch. My advice is simple: keep a more open mind, develop a sense of humour, and try to be less offended by silly stuff. That way, you might actually get a date and not be so bitter towards men. (Unless you're a lesbian, in which case, I don't care).

NOTE: I did not intend to be hurtful in any way to any good feminists or lesbians out there, I admire your cause. I was just intending to be hurtful to the particular demon who wrote that comment. Thanks for understanding. And now, for real questions.

Dear Dating Advice, yo! Here's my situation: my roommate's girlfriend is practically living in his room, which bothers me because she's not paying rent, and they always shower together which is disgusting. What should I do, man?

Response: Look at the bright side. She may not be paying rent, but if the two of them occupy one room, it costs the same. And about the showering, they're conserving water, you should encourage that. Maybe they'd even let you join, who knows? But if it really bothers you, remember, it's spring! There's lots of dirt-cheap sublet opportunities out there. In fact, my own roommate couldn't sublet his room, so you could move in with me for pretty cheap. Hope you like pancakes for breakfast every Sunday!

Hey. Where can I meet girls?

Response: Seriously? You can meet girls everywhere... in class, in the library, on the streets, just go out and you'll meet girls. Now talking to them, that's a different question for next time.

Thanks for your time people. Don't forget, if you have dating questions, just pop them into the **BLACK BOX** anonymously (unless they're hate mail). Also, the Date-Less Dating Advice Guy is now running a new matchmaking service! Disclaimer: match-making service is available to hot girls only, and all hot girls will be matched with me.

Until next time, love each other, but not too much.

The Date-Less Dating Advice Guy

Another *prof*QUOTE!

Don't go to bed tonight until you have mastered simple harmonic motion.

Mansour, PHYS 125

The Totally Second Part 2 B II of The Really True Story of Orange Crush

Seriously

Okay, okay, okay. We're back to the amazing 6-part story of Orange Crush. Last time, in case you missed it because you were too busy reading other articles, like that weird letter to the editor requesting more crazy stuff and less real news on *mathNEWS*, here's a short recap:

Orange Crush died.

Ain't I succinct? Well, here's Part 2 of the story — Hell(o).

So, as Orange Crush's body was lying on the floor at the MC, his soul descended down to a little place I like to call Hell.

At the gate stood a sign instructing everyone to pass through the 9 Circles of Dante's Inferniola. If you succeed, you get a prize! Well, since they were 9 concentric circles, Orange Crush used some clever theories that utilize radii and chords (not guitar chords though, because Orange Crush can only play a D and maybe an A. Oh, and E minor). Anyway, using the circle geometry, Orange Crush made it right to the inner 9th circle, to face Dante.

But instead of Dante, Orange Crush met with none other than... Jiminie Cricket!

(Dear Disney rep, if you want to sue me for using your character in my story, good luck. My cricket is spelled Jiminie, not Jiminy. It's totally different, dude.)

"Hey, what are you doing in Hell?" asked Orange Crush.

"Who do you think told Pinocchio about the donkey thing? It was all my idea. But he was an ass to begin with, if you ask me", said Jiminie.

"Oh. Well, can I make a wish?" Orange Crush asked. He was hoping he could wish to come back to life and then I wouldn't

have to write Part 3 of this stupid story in two weeks.

"Dude, I'm supposed to be the conscience, I don't grant wishes, that's the fairy! Do I look like I'm wearing a blue dress?"

So Orange Crush was all disappointed and he stepped on Jiminie Cricket.

Next, Orange Crush met Hellboy.

"Hey Hellboy, what the hell are you doing in Hell?" asked Orange Crush.

Because there wasn't much space left for more plot or dialogue, Hellboy just punched Orange Crush with his giant oversized arm, and the soul of Orange Crush got knocked straight out of Hell and right to the one place you'd never expect...

Heaven!

In the meantime, a mysterious figure was approaching Orange Crush's body in a very suspenseful manner... very suspenseful! Ooooh!

Next issue: more suspensefulness!

That was the story for now. I know it sucks, but hey, you try to write a follow-up to the genius of last time. I mean, there was a serial killer! Dude!

We'll end with a relevant yet unfunny joke — Which famous British actor is going to play the role of the fairy in Steven Spielberg's remake of Pinocchio in 2012? Hugh Grant (wishes).

Till next time, have a fun week, and don't forget about your linear algebra quiz.

Zombie Orange Crush.

Questions Lost Left Unanswered

- Does $P=NP$? After all that Sawyer did, we still have no clue if non-polynomial depth problems can be solved in polynomial time.
- Why did the mountains float in Avatar? I thought clues were coming when the polar bear showed up, but that only left more holes in the puzzle.
- What sort of drugs were JJ Abrams, Damon Lidelof and Jeffrey Lieber on when they came up with this show? I'm still predicting it was heroin.
- Why did the chicken cross the road? Was it to get run over by a trainwreck of a finale?
- Why would they tell us it wasn't purgatory when in reality, it was actually purgatory the entire time? What a bunch of jerks!
- If Insided was trapped on an abandoned island with the Imprint's sex columnist writers, what would actually happen? So that's where the 4-toed statue is from!
- What is the meaning of Life? Actually, this one was answered. Get off the couch and stop watching the pointless show that answers every question with another 3 (on average) questions.

Tbor

profQUOTES

You have a mail client... that makes you sound like gay prostitutes.

Ward, ECE 454

If you're lucky, [your mail server] will tell you there's a beautiful Russian woman who will love you and bring you happiness for the rest of your life. Then you download it.

Ward, ECE 454

What is a proof? A proof is this fluffy thing that you use to show something that is going on. I'm paraphrasing Hardy, so don't put that in the [profQUOTES]

Rubinstein, PMATH 352

When the photon and electron whack off each other... I should rephrase that.

O'Donovan, PHYS 122

Horrorscopes

ACCOUNTING:

The positions of the constellations foretell that it would be auspicious to do all your work in base 2 this week, which is a very good opportunity to sneak in some number-fudging. Be wary of those in Computer Science and Software Engineering.

Your lucky number is 1111101000 dollars in profits, at certain costs though.

ACTSCI:

You must recite a quote from a prominent scientist (it is actSCI after all) every morning before 8:00 am, or a terrible misfortune might befall you, or it might not. You can work out the probabilities and expectations yourself.

Your lucky number is between 0 and 1.

AHS:

Death will eventually claim everyone, so you can only ever hope to delay the inevitable. Everything you ever do will be futile, so why bother trying? Just go home.

Your lucky number is 4.

AMATH:

The path to realization shall be clouded with more uncertainties and theoretical details. Just when you think you can see your true purpose, you encounter another singular point.

Your lucky number is $1/x$.

BBA/BMATH:

You try to implement a flawed business plan that will cripple the economy but make you rich. However, you miss the opportunity to execute it because you spent too long trying to prove that it will work.

Your lucky number is 24 months too late.

C&O:

Beware of strange people driving around in vans in the near future. Also keep in mind that should they come after you, it is permissible to take the escape route that is not the most efficient.

Your lucky number is 7 more intersections you have to cross.

CS:

The probability that the electrons in your computer's hard drive will spontaneously rearrange themselves to create something wonderful will peak in the next 7 days. You are to sacrifice 2 of every animal (start with squirrels and geese) to welcome this miracle.

Your lucky number is 1 fundamental physical law violated.

ENV:

Your position in the scientific community is getting usurped by the cult of Al Gore. You, as the righteous practitioner of your knowledge, must defend its sanctity. Or, if you can't beat them, join them! It's probably much easier to do that.

Your lucky number is outnumbered 10 to 1.

MATHBUS:

Peoples' opinions of you oscillate between implementers of good ideas and money worshipers, but there is no reason you can't do both at the same time. Therefore, design a shrine for a \$20 bill and try to market it. Getting drunk will make it easier for you to start.

Your lucky number is less than \$20 in profit.

PMATH:

How can PMATH be regarded as impractical? Somewhere along the way, you screwed up. This will not be good for your karma, neither will it be very good for your job prospects.

Your lucky number is 1 thing to think about.

SE:

The only impression you are making with the outside world can be summarized by the words "segmentation fault". It even contains the two letters of your program.

Your lucky number is 76.

STAT:

Your luck in the next week will be normally distributed with a mean of 0.

Your lucky number is the standard deviation that is unknown.

TEACHING:

You end up having the recurring dream about going to class with no pants, and then realize you really are in class with no pants! And are the teacher! You decide to roll with it and your students don't seem to notice.

Your lucky number is the average mark of all of your future students.

UNDECLARED:

This issue of Horrorscopes will deviate from the usual ambiguous and/or condescending entry for the undeclared, and will instead say: fate will smile on you.

Your lucky number is whatever you want.

*ultra*CLASSIFIEDS

FOR SALE: Recording of random singing from when we were editing *mathNEWS*. \$17.99. Talk to editors if interested.

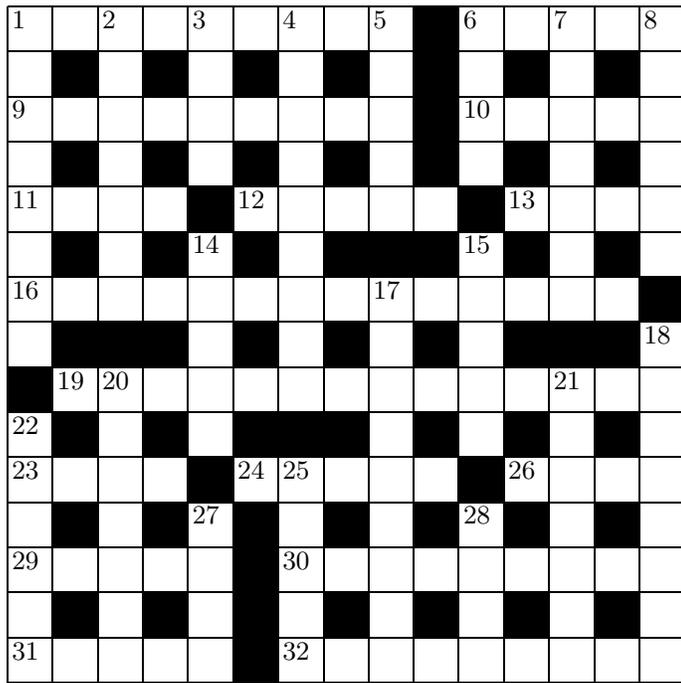
WANTED: A new editor. **SERIOUSLY!** InsidED can't do it on his own next winter!

FOUND: The null set.

LOST: The final episode. Seriously, it doesn't make sense. Contact MathSoc if you understood it.

FOR HIRE: Someone to write Communist articles for the Chevron. We need to bring it back to its former glory!

SORRY: I never meant to hurt you. Never meant to run around and desert you. We've known each other for so long...



Quick Clues

Across

- 1. Malevolent
- 6. Trim
- 9. Caparison
- 10. Vague
- 11. Grape plant
- 12. Drill
- 13. Suspend
- 16. Waffling
- 19. Rambling
- 23. Brown, basmati, ...
- 24. Babble
- 26. Glide
- 29. Junta
- 30. Mall or covered wagon
- 31. Follow
- 32. Persist

Down

- 1. Incite
- 2. Student
- 3. Yawn
- 4. Until vomitting occurs
- 5. Flavour
- 6. Spider web fibre
- 7. Guacamole ingredient
- 8. Potential or kinetic
- 14. Segment
- 15. Prance
- 17. Lard purpose
- 18. Enfeeble
- 20. Nightmare
- 21. Deuterium and protium
- 22. Seer
- 25. Summary
- 27. Hint
- 28. Man or Wight

← Remember that these represent two DIFFERENT sets of solutions!
(But we have a prize for each) →



Cryptic Clues

Across

- 1. Professional street rodent concludes exercise incapacitated (9)
- 6. Theme repeated in design (5)
- 9. Acceptable table beginning to go after oxygen placed in new wall (9)
- 10. Ringing a Kitchener radio station, so I hear (5)
- 11. Exercise can be found in an array o' gasses (4)
- 12. New area of land before 1000 coffee condiments (5)
- 13. Sounds like a man paddling to the rescue? (4)
- 16. Unwanted knight caught incomplete agreement east of United Nations before ability begins to go (14)
- 19. Fate begins pouring blood-coloured bird structures without limits in leaderless country (14)
- 23. Broken man! (4)
- 24. US bank being followed (5)
- 26. Ladies come to me concealing a scholarly book (4)
- 29. Odd ex leaf tree makes happiness (5)
- 30. Delaware's headless extinct bird lacks defenses to scramble tRNA reducing odour (9)
- 31. Complete sum (5)
- 32. When asleep, we are contained! (9)

Down

- 1. Australian mammal climbing mountain stays every second to begin planning America (8)
- 2. Required 50 imaginary girls initially in bed below heart of stone (7)
- 3. Small city found in what it owns (4)
- 4. Perfume ingredient name north of Greek island (9)
- 5. Swelling leather without Seattle University graduate (5)
- 6. I hear making fun of the speed of sound (4)
- 7. Pitchfork guts tutor identifying entrance (7)
- 8. Muscles flash without burnt residue formerly above Oregon (7)
- 14. Old ideite out of the way (5)
- 15. AKA a northbound sail (5)
- 17. Blackberry maker's street entirely encased in bone of Hell (9)
- 18. A northern civil engineer rots northbound elder (8)
- 20. Unrestrained criticism encases current unit (7)
- 21. To cut off disk image after deadline (7)
- 22. Customer's cheating lie doesn't end (6)
- 25. God of the dead messed up heads (5)
- 27. The odds of my email containing food (4)
- 28. Cleaning bars concealed in a manner so appropriate (4)

Submit before June 7th for your chance to win!

Name: _____

Answer to gridQUESTION: _____