# mavih NEWS 

Volume 75, Issue 3
Friday, October 24, 1997
All together, now: EIGENVALUE, EIGENVECTOR, HOI! HOI HOI!


Try as he might, Gerald simply couldn't get anyone interested in Mathtoberfest.

## mastHEAD

This is the scraper, this is the poker, and this happy little fellow is called the gouger.

We held a vigil around the sacred BLACK BOX tonight, praying that the next time we opened it, we would find it overflowing with glorious content for this issue of mathNEWS, but alas, it was not to be. Some editors would take this opportunity to beg for submissions, but not us. Hell, you'd probably just send us crap anyway. Go ohead, prove us wrong.

By the way, today's secret word is 'Foosball'. Remember to scream like erazy whenever you come across it.

We had three people show up at the beginning of Production Night, but amazingly, we doubled that number when the pizza arrived. Even more amazingly, the number went back down to three when the pizza was finished. Here's the people that helped out during last Monday, in no particular order, along with their reason why they showed up to Production Night instead of watching the new Golf Channel on TV: Peter Lizak (I'm fat, over 60 , and have white hair - wait a second, that's wrong), Greg Taylor (mathNEWS is par for the course), John Swan (I agree with Mark Twain on golf myself, personally), Mike "Hammer" Hammond (I'm eagerly awaiting the debut of Bowling Central and The Foosball Network), Lara Thompson (I have the Golf Channel? Excuse me, I'm leaving now...), André Cousineau (I'm taping it), and Dan Pollock (Because Brian said I should).

Thanks goes to Domino's Pizza for their wonderful pizza and to Marion at Graphic Services...

Brian "Latrell" Fox (Well, cuz I'm co-editor so I think I should make "a token appearance") Chadwick "Cha cha cha" Severn (I take advantage of the TV in the mathNEWS office that's set to the Golf Channel 24 hours a day)

## Election Notice

In case you missed it yesterday, today is your last chance to vote in the VPAS (Vice-President, Activities and Services) Election. Polling is taking place in the third floor hallway outside the C\&D until $4: 30 \mathrm{pm}$, so come out and cast a vote.

Cally Martin

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New goobseoring duo who will lead the Leafs to the promised land: Brian Fox, Chadwick Severn
(Question is ... will the rest of the Leafs follow?)

## Prez Sez

Well, MathSoc is plodding along as usual. Thank you all for making our Oktoberfest trip a rousing success. We came very close to selling out and I hear everyone had a great time. Next up for Social events is Pub Night (tonight by the time you read this), which is always a great time. There'll be something for everyone including Pool and Foosball tournies, dance contests, door prizes and much much more; so make sure you come on out to the Bomber tonight. Also, we're having our Movie night, as usual, on Thursday the $30^{\text {th }}$ which you can find out about elsewhere in this issue. In non-social news, the course evaluation review committee is looking for people to help out in a trial run of the new course evaluation forms to tentatively roll out next term. I have it on good authority that there will be pizza served. A date has not yet been set, but if you are interested contact Chris Buchanan at csbuchaneundergrad.math. Also, as you should hopefully be aware of by now, there is a by-election going on right now for the position of VPAS of MathSoc. The candidates are Chris Buchanan, the VPAS collective (official candidate Mark Thornton) and Adam Nevraumont. Today is the last day of voting so get your ass on out there. Well, that's about all I have to say this issue. See ya next time.

André Cousineau
President, MathSoc

## gradNEWS

Time for your update on the happens in the world of the Grad Committee. Yearbooks have been on sale this week. If you haven't ordered one yet, you still have a chance. The last day for ordering is today, and for just $\$ 35$ you too can have an eternal reminder of what your $3,4,5,6$ or more years here at Waterloo were like.

Of course, if you want to make sure that pictures of you and your friends are in the yearbook, you should give us some of your favourite pictures. Just drop them off at the MGC office, the Yearbook committee will take it from there.

If you have heard rumours (even if you haven't) of a Hallowe'en keg party sponsored by MGC, it is true. It will be on October 31 (oddly enough) and it will be taking place at 97 Columbia St. It should go for most of the night, so put on a costume and come by. It promises to be a great time. So, I'll see you there.

Have you handed in your Grad Blurb yet? Yes? Good for you. If not, you're really pushing your luck. Send them in NOW!!! You can email them to mgc@undergrad.math, or through our web page.

Make sure to keep abreast of our happenings, subscribe to our newsgroup: uw.math.mgc. We'll keep news of all our upcoming events there. Remember: Pizza day every Wednesday, so support YOUR Grad Ball. The more pizza you buy, the more we can spend on your Ball.

Speaking of the Grad Ball. thanks to everyone who sent in a suggestion for the theme. If you have a great idea, but haven't sent it in yet, please email to either Chantal Bray (cbray@undergrad.math) or to the MGC account (mgceundergrad.math).

That's all for now. I gotta go study for some midterm.
Xavier Aburto

# $\cos$ Science Club 

A Student Chapter of the ACM

## CSC Flash

Greetings once again.
Due to an overwhelming request, here are the full ACM programming contest results for both contests (on October $4^{\text {th }}$ and $18^{\text {th }}$ respectively).

People are ranked first by the number of questions solved, then by decreasing time penalty. The time penalty for a question that is solved is the number of minutes it takes to produce a correct solution plus an additional 20 minutes for every incorrect submission made.
Contest 1:

| Userid | Team Name | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| acm008 | Derek Kisman (1997) | 52 | 216 | 186 | 22 |  |
| acm030 | David Kennedy | 111 | 113 |  | 43 |  |
| acm015 | Jeff Shute | 59 | 197 |  | 80 |  |
| acm020 | Viet-Trung Luu (1997) |  | 82 |  | 40 |  |
| acm018 | Wai Min Yee (1997) |  | 160 |  | 67 |  |

Totals: 476(4), 267(3), 336(3), 122(3), 227(3)
Contest 2:

| Userid | Team Name | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| acm005 | Chris Hendrie (1996) | 17 | 165 | 115 |  | 85 |
| acm008 | Derek Kisman (1997) | 39 |  |  | 58 |  |
| acm020 | Viet-Trung Luu (1997) | 70 |  |  | 27 |  |
| acm010 | Ian Prest | 21 |  |  | 100 |  |
| acm018 | Wai Min Yee (1997) | 89 |  |  | 47 |  |

Totals: 382(4), 97(2), 97(2), 121(2), 136(2)
Teams for the regionals at Notre Dame will be announced by the time that this gets into mathNEWS...
And now, since I am unaware of any scheduled talks in the immediate future (though keep posted for any that may suddenly happen) except for the ICS courses offered throughout November/December, I proudly present. . . talks that will NOT happen in the immediate future:

- October 28 @ 6:30pm - Implications of obscure biology jokes on CS by Paul Chrysler
- October 29 @ 7:00pm - How to be a Happy, Fluffy SysAdmin by Dave Brown
- November 3 @ 6:30pm - Bamboo and its effect on CS majors by Kuma
- November 4 @ 6:00pm - LISP programming on the BatComputer ${ }^{\text {TM }}$ by Adam West

So, remember to stop by the CSC and ask about our extravalue membership plan, and become one of the many undergrad students already a member of the CSC. Until we meet again...

Calum T. Dalek
lookAHEAD

| mathNEWS |  |
| :--- | :--- |
| October 24 | Issue \#3 gives you paper cuts |
| November 3 | Issue \#4 production night |
|  | 6:30pm, MathSoc (MC 3038) |
| November 7 | Issue \#4 makes its presence felt |
| Math Faculty |  |
| October 25 | Fall Convocation |
| November 5-7 | Spring Term Pre-Registration |
| MathSoc |  |
| October 24 | VPAS Bi-Election |
| Pub Night |  |
| October 24 | Math Pub Night @ The Bomber |
| Movie Nights |  |
| October 30 | The Fifth Element <br> and Die Hard 3 |
| Co-op |  |
| November 4 | Ranking Forms available at 11:00am <br> November 4 <br> Ranking Forms due at 4:00pm <br> November 6 <br> Continuous Phase starts |
| Miscellaneous |  |
| October 30 | mathNEWS backup editor fired because <br> he "doesn't know the game plan" |
| October 31 Hallowe'en <br> November 1 <br> Sell your pumpkin futures  |  |



# The Actuarial Science Club 

Hello, boys and girls! Welcome back to school!

Our sincerest apologies for not publishing this earlier... but SOA (Society of Actuaries) exams call!. . and are still calling! Hence the late welcome from the ActSci Club.

A special welcome to the new members of the ActSci Club!
For the benefit of our froshes who are still contemplating membership in this elite club, I will venture a brief summary of the functions, services, and advantages to being a member of the Actuarial Science Club. However, I highly recommend and encourage you to pay a visit if you haven't already done so.
The ActSci Club is partially funded by the Math Faculty with the remaining funding contributed by membership fees. This club is solely operated and managed by a body of student executives who are nominated at the first meeting of the club at the commencement of each term.
The main function of the ActSci Club is not only to keep you posted on related issues of this profession, but also to provide an informal base for Actuarial Science students to voice their concerns and opinions on Actuarial issues through ANEA/ASNA (Actuarial Students' National Association).

Yup! That's correct! The ActSci Club of the University of Waterloo, is one of the 9 privileged Canadian Universities that constitutes ANEA/ASNA, which not only links its members to other ActSci Clubs across Canada, but to the US and around the world.

Amongst the numerous services offered by the ActSci Club are:

- Loans of Actex Manuals for associateship levels of the Actuarial professional exams
- Welcomes disgruntled students to vent about Exam 100 or life in general
- Free Macarena dance lessons
- Provides a network to purchase or sell used Actex manuals and other SOA exam materials
- Hosts talks and panel discussions pertaining to current Actuarial issues, which are presented by guest speakers from various fields of the Actuarial profession.

There are many advantages to being a member of the ActSci Club:

- FREE admission into events hosted by the club
- Unlimited access to the SOA exams materials
- FREE juicy gossip and news from the grapevine regarding Actuarial Science courses, professional exams, and co-op job experiences
- Plus much, much more!

Did I mention that the NEW Actex manuals for Exam 150 and 161 are now available in the ActSci Club? they correspond to the latest of the Actuarial Mathematics text!

Without further ado, girls and boys, I would like to present our die-hard volunteers:

| Chantal Bray | (President) |
| :--- | :--- |
| Benny Wan | (Vice-President) |
| June Quah | (Treasurer) |
| Woolf London | (Secretary) |
| Jackie Sankardyal | (Publicity Director) |
| Stephen Tu | (1st Year Class Rep) |
| John Lo | (2nd Year Class Rep) |
| David Moore | (Co-3rd Year Class Rep) |
| Candace Cooper | (Co-3rd Year Class Rep) |
| Jon Goll | (4th Year Class Rep) |
| Shawna Stephens | (Editor of the newsletter W.A.V.E) |

Aaaaaaaand finally, here is what we have planned for the remainder of the Fall term:

| ActSci |  |
| :--- | :--- |
| October 29 | Talk at 4:30pm in MC4040 |
|  | Speaker Barry Matsui from |
|  | William M. Mercer Consulting |
| November 21 | Supper at 7:00pm at Mongolian Grill |
|  | Ultimate destination: |
| Nomber's or Weaver's |  |
| Nover 25 | Panel Discussion at 10:00pm |
|  | 4th Year Students speak about AS |
|  | courses, SOA exams, etc. |
| After Finals | Christmas potluck dinner at Sid/Jay's place |

Contrary to popular beliefs, we are definitely a cool, energetic and fun bunch of people to hang out with. So, grab your $\$ 5.00$ (Yep! That's how much it costs you to take advantage of the unlimited fun and services provided by the ActSci Club) and run down to MC 3030 for your membership card.
Race ya!
However, before we get on our marks, I have a public service announcement to make. On behalf of the ActSci Club, I would like to wish Dave Moore (our 3rd Year Rep.) and his broken arm a speedy recovery!

Plenty of good luck for the Fall term! To my fellow graduates-to-be: Hang in there. . . the end is near!
On your mark... get set. . . GO!
Jackie Sankardyal

## Pub Night

Tonight (Friday October $24^{\text {th }}$ ) is Math Pub Night at the Bomber. We have all sorts of prizes to give away. There are door prizes, trivia prizes, free foosball and pool tournaments (which also have prizes) and a dance contest. If you've never been, it's a blast... and if you have, you already know that. You have a really good chance of getting a prize, and it's all free. Sign up for the tournaments starting at 9:00pm (they fill up quick). Get your door prize ticket up until 11:15pm.

Cally Martin

## Dean's Honours List

In recognition of outstanding academic achievement throughout their undergraduate careers the following students will "GRADUATE ON THE DEAN'S HONOUR LIST" at Fall Convocation, October 25, 1997 and have their names displayed in gold on the walls of the Faculty Colloquium room (MC 5158).

BURGER Reinhold Friedrich
H COMP SCI
TEH Yee Whye
H CS\&PMATH

In recognition of outstanding academic achievement throughout their undergraduate careers the following students will "GRADUATE WITH DISTINCTION" at Fall Convocation, October 25, 1997.

CRNAC Cindy
LEE Stephen Man Leun
LIAO Ken-Er
NADARAJAH Kavitha
ORVIS Joel Alfred
POREMBA Melissa Lynn

HC OP RES
H C\&O \& CS
H AM \& CS
H COMP SCI
H CS/EL E
3YR GEN

In recognition of outstanding academic achievement during the Spring 1997 term, the following students qualified for the Dean's Honours List.

AU Kenneth Wing-Yiu BENNETT Joshua Michael BILSON Richard Charles BRADY Eoin BURGER Reinhold Friedrich CHEUNG Donny Chun-Tung CHUNG Ricky Wai Kay CSERCSICS Michael Frank

BAUMAN Shane Brendon BERNAT Andrew BOGDANOVIC Maja BROWN Michael Stephen CHAN Kelvin Ka Chun CHIU Pei-Wen Andy
COTE Jennifer
DROZD Michal Jacek

DUBASH Neville
ENGEL Trudy Suzanne FUNG Pek Shan Goretti GELLER Leonid
GRAY Andrew
HAGEY Warren Craig
HERLING Daniel
HO Ryan Yin-Kei
IU Ming Yee
JEFFREY James Richard
KISMAN Derek Ian Edwin KOS Ondrej
LACROIX Michael Andrew
LAM My-chau
LESHEM Ran
LIM Woei Chet
MAK Wing Chit Raymond
MCPHERSON Drew William
MILOSEVIC Jovan
NEVRAUMONT Adam Frank
OSTROWSKI Michal
RAJWANI Amal
SACKS Bryan
SRIVASTAVA Raman
TANG Thomas Cheuk Kai
THOMPSON Lara Robin
TOCHIP Ramon Jr.
TRIPP Jennifer Lynne
WHYTE James
YEE Brenda Yvonne
YOUNG Alyssa Michelle

ELLIOTT Paul Jeffrey
FINE Brenda A.
FUNG Pui Yin Grace GRAHAM Robert GUENDELMAN Eran HARVEY Nicholas James A. HO Clinton Hung Kwan HO Wing Hong
JAMIESON William Trevor
KENG Leslie
KOCH Daniel Gerald
KWOK Kin Fai
LAIT Jeffrey Michael
LANSING Maxine Ivanna LI Samuel
LOK Wai-Yi Begonia
MAN Curtis Cheng-Cheng
MICHAIL Ashraf Ayman MURTAZA Afan
NING Daisy Hiu Mei
PAYTON Christopher E James
RUSSELL Elizabeth
SIU Selina
SYMONDS Michael Edward THE Dennis THORE Matthew Edward TOROK Janine M. WAI Hanny Chi-Hang WONG Sabrina Y. YEE Wai Ling

In recognition of outstanding goofing off and numerous appearences at the Bomber, the following student may "GRADUATE?" and will have his name written in the snow in the DC Courtyard.

FOX Brian Carl

## Making the Cows Talk

Being as curious as I am, I really would like to learn what the cows know. Of course, regular means of making them talk will likely not suffice. The bright light has surely been tried and failed. Stretching devices of the sort in Last Kiss Goodnight would only be enough to drive Geena Davis insane; the cows would surely withstand. And so my search began of tortures worthy of their obtuse silence. A few ideas so far:

1. Although not so exotic, this would be extremely painful: glue-gunning their eyes closed, then after it's dried, peel it off once again, then trying the bright light trick.
2. If after the glue has been removed and they're still not talking, boiling oil (temperature in excess of $150^{\circ} \mathrm{C}$ ) could be poured into the ear canals, though we'd have to be careful not to pour too much as to get into the brain and kill them.
3. Though this may not encourage "talking" per se, they would still be capable of writing what it is they know: pouring hydrogen peroxide into their mouths, and - assuming they
have cavities - coating any fillings; the peroxide enters the tooth cavity, expanding and shattering the teeth like glass.
4. Then there's electrocution. But as I have a flare for the exotic, I suggest you try a metal rod in each end, and attach each with jumper cables - the gastric fluids are great conductors. . . but that's just downright wrong.
5. Of course, there's always that drug from True Lies that they used on Arnie so that he told them exactly how he was going to kill them and escape. . . but that might be costly.

If still they won't talk, then ask any second-year and they could tell you, the cows are much much too intelligent to let their secrets become public, and if they did, the entire bovine population would likely exterminate the human race. Better we not learn what they know..

Lara Thompson
And no, I'm not really that sadistic.
"The bad news is that my car was broken into and the midterms were stolen. The good news is that someone complained to the Dean about how easy the midterm was, so you were going to have to rewrite it anyway... that was a little joke."

Kotlov, C\&O 342
"That sucks! That really, really sucks! I'm sorry about that..."

Irving, C\&O 230
"I don't know how to define a substring except to say it's pretty much what you think it is."

Irving, C\&O 230
Prof: "Hagey Hall - that's the orange brick rat maze." Student: "Isn't that the Psych building?" Prof: "No. That's the concrete rat maze."

Bodell, ECON 101
"The Mean Value Theorem... sounds like the name of someone in the WWF. Well, actually, I guess that's more appropriate for an algebra teacher."

Scoins, MATH 137
"I have students who try problems and if they don't get it they ask me. So I did it too; I asked me, and it didn't help, so I had no choice but to continue working."

Scoins, MATH 137
"I had an operation a few years ago. I've been metricized."
Scoins, MATH 137
"If you think professors are block heads, this professor is being treated like a block."

Brandon, PHYS 121
"Every fool knows $21-14=7 \ldots$ even some smart people know that."

Goulden, MATH 135
"When we read $n$ ! we don't get all excited and say ' $N$ !'... well, I do."

Goulden, MATH 135
"Please tell me if you don't understand this. Giampiero, do you understand this? You people at the back, do you understand this? Tell me if you don't understand this. . . heck I don't even understand this. .."

Hewitt, MATH 135
"Now since $e$ is a common divisor of $a$ and $b$, then $e$ must divide the Greatest Common Divisor of $a$ and $b$. He's the King of the divisors, you know. We all must pay homage to him."

Hewitt, MATH 135
"Now, this isn't rocket science, though I never really thought rocket science was all that complicated..."

Forrest, MATH 147
"...since this doesn't look like the algorithm that you experienced in grade two..."

Forrest, MATH 147
"Even though Colin over here is from Laurier, he knows... oops, I wasn't supposed to tell anyone was I?"

Crippin, MATH 135
"You don't believe Dave Nichols brews his own beer? He just guzzles it and eats the food he finds."

Atkinson, ACC 382

## 

 What do you think?

## Shaft for VPAS?

## WatSFiC Corner

## WatSFiC'S $50^{\text {th }}$ Anniversary Tournament

This fall's WatSFiC AD\&D Format Tournament is number fifty since the club first began holding them in 1978. It has been recognized as the longest running tournament of its kind. We have had people from all across Canada come out, as well as several participants from the U.S. and we certainly hope to have a large turn out this time. We'll be looking for some of the "old folk" that have been involved with past tournaments, as well as those who have never attended one of these events. This term's tournament will be running Saturday, November 15 and Sunday, November 16, 1997, with Friday evening sessions running only if we have an overflow of registrations. It is the third tournament written by the submitter ("A Norse is a Norse" being his last effort) and attempts to give some different challenges while remaining high in role playing. The first round is titled, "Mission Improbable" while the follow up has been dubbed "... And now, for something completely different."

WATSiT all about? The tournament began running in 1978, not long after Dungeons \& Dragons came out. Back then there were only a handful of teams with four players each. The game grew and so did the tournament. Soon more than thirty teams of six were competing for team and individual prizes totaling more than seven hundred dollars. This year's event should offer more prizes and hopefully new and old faces at the tables. The tournament consists of two rounds or sessions that may or may not be linked together. Teams of six players each are given pregenerated characters and breathe life into them in their own way. Each team plays the same scenario in a set time limit (usually four hours plus set up time) and is scored on the basis of team and individual role playing and set objectives, as set by the writer. Three sessions are held Saturday at 8:00 a.m., 2:00 p.m., and finally 8:00 p.m. (Please note: sessions are booked on a first come basis so please register before the tournament if you need a specific time slot. The evening slot fills quickly and we only have a certain number of DMs to go around.) The teams' scores are then tallied and compared, with a third to half qualifying for Sunday's final round. Prizes are awarded for Saturday's best role players, with first, second, and third place finishers receiving gift certificates from local gaming stores that sponsor the tournament. Sunday's prizes are given to the top three teams, as well six first place role players.

WATeLSE is happening? There are also other events that are happening during the weekend. When not playing in the tournament event you can play any one of six Living City RPGA sessions being run. These scenarios have never been played in Canada and will be running at the same three times as the tourney sessions, as well as Sunday, for those that don't make it into the second round. This is a great opportunity for players to give their Living City characters some experience. And for the night owls and back-stabbing bastards out there, we have the return of the Thieves' Challenge. This event has been a favourite for those who have not had enough gaming and can still see straight at 2 o'clock in the morning. It consists of 20 plus thieves going out on the same mission, but with room for only one successful returnee, and the prize that goes with it. It has varied in format but rumours have leaked out that a scavenger hunt may be in the works. We are also trying for a demo session this year for
the new Legends of the Five Rings role playing game. Efforts are being made but confirmation is pending. The final happening of the weekend is the DM's dinner that takes place after the awards Sunday night. This tends to be the time when players get together with the evil creatures who have judged their adventures and find out why they were killed (not necessarily killed, but it happens). It takes place at one of the local restaurants within walking distance of the university and all are welcome.

WATCoST? The entrance fee for the tournament has not gone up for years and is a bargain. Cost is $\$ 36$ per team of six or $\$ 6$ per individual. You can save one dollar per person by registering by November 7, 1997. The RPGA events can be entered for $\$ 2$ per event with a one time $\$ 2$ charge for those not registered in the tournament. The Thieves' Challenge is free to all who wish to participate. The DM's dinner will run to whatever people choose to eat and drink (!). The most important thing is to have fun!

We appreciate any inquiries and volunteers for this event. There is still some room for DM's wishing to participate and always space for another player or team. For information you can reach this year's Secretary of War by emailing edkoerner0sgci.com. The WatSFiC webspace at wwh.csclub.uwaterloo.ca/clubs/watsfic/ is always open to visitors, so stop by and say hello.

See you there.

# Crappy, Crappy Dance Music Report 

Aqua<br>And by the way, I didn't include a header.

Well, well, I have a CS midterm in 50 minutes, and I've thought it would be more important to do my mathNEWS column than CS.

Anyway, here are the results for last week's survey:

- Lene had 2 votes (Alison, "John Street Greg")
- Soren had 1 vote (ME!)
- Horse had 2 votes (Alison (never said ya can't vote twice), Jen)

Anyway, we're working towards $10+$ votes, so here's next week's question (I'll keep it short).

What is the airspeed velocity of an unladen swallow, and what's your favourite place to drink?

C U next week!
Peter Lizak
P.S. Did you know the Spice Girls are on the label "Virgin"...hmmmm...

## New Rogers Cable Package for Mathies

Rogers ${ }^{T M}$ offers you choice when it comes to cable: give us lots of money or get really crappy reception. Er, I mean, we offer a wide variety of options as to which grainy channels you get: you can get Basic Cable, our Classic Combo TV Pak, our Ultimate TV Pak, and our brand-new MeTv Pak. (For a little bit extra each month, we'll even put a ' $c$ ' in your chosen Pak.)

And now, Rogers ${ }^{T M}$ is proud to announce our most special specialty cable package ever: our MathieTv Pak! This package includes all the channels you've come to expect with Basic Cable, plus the following new channels:

## - $A$ GEECBOO

Arts, entertainment, combinatorics, and optimization; what more could you ask for? $A \mathcal{G} E \mathcal{G} C \mathcal{O}$ offers it all, from powerful dramas like Law \& Ordinary Generating Functions to the stories behind celebrity minimum weight spanning trees on BioGraph Theory.

## - CNN (Calculus News Network)

What's happening in the world of calculus today? The first news network devoted completely to the latest news stories coming from this branch of mathematics, $C N N$ has quickly become an integral part of all applied mathematician's lives. As you approach the limits of other news networks, CNN's coverage just begins.

## - VectorSpace: The Imaginary Axis Station

Enter an $n$-dimensional space where science fiction, science fact, fantasy, and mathematics are all tied together into one sloppy knot. Prepare to have your real axis made imaginary with classics (Battlestar Statistica, The Bicubic Woman) and current favourites (The Yo Files, Math Trek: N Space Nine).

## - Double Prime

On Prime, we offered powerful dramas, celebrity biographies, and award-winning mini-series. But since this makes it a Canadian version of $A \mathcal{G} E$, we decided to go one step further and make this channel even more derivative. Only here can you watch classic movies like Tangentlemen Prefer Blondes, Desperately Secanting Susan, and And Now for Something Completely Differentiable.

## - MathMusic

MathMusic is the only station devoted to the music of mathematics. Watch as it shows videos from today's top mathematical acts, like Soul Asymptote, Paula Colinear, and HanSine. MathMusic also features television shows you can't watch anywhere else in Canada, like Beavis and Math-head. ("Huh-huh-huh-huh-huh. Hey, Beavis, he said 'annulus'. Huh-huh-huh-huh-huh.") Also, be sure to watch for MathMusic's CS French-language sister, MusiquePlusPlus.

Order now! You're Not Going to Miss All This, Are You? ${ }^{\text {TM }}$ (I know I certainly don't miss Rogers ${ }^{\text {TM }}$ cable!)

Mike "Hammer Life Network" Hammond

## The 28 Types Of People In The Men's Room

1. EXCITABLE: Shorts half twisted around, cannot find hole, rips shorts.
2. SOCIABLE: Joins friends in piss whether he has to or not.
3. NOSEY: Looks into next urinal to see how the other guy is fixed.
4. TIMID: Cannot piss if someone is watching, flushed urinal as he had already, comes back later.
5. INDIFFERENT: All urinals being used, pissed in the sink.
6. CLEVER: No hands, fixes tie, looks around and usually pisses on the floor.
7. WORRIED: Not sure of where he has been lately, makes quick inspection.
8. FRIVOLOUS: Plays stream up, down, and across urinals, tried to hit fly or bug.
9. ABSENT-MINDED: Opens vest, pulls out tie, pisses in pants.
10. CHILDISH: Pisses directly into bottom of urinal, likes to see the bubbles.
11. SNEAKY: Farts silently while pissing, acts very innocent, knows man in next stall will get blamed.
12. PATIENT: Stands very close for a long time, reads newspaper with free hand.
13. DESPERATE: Waits in long line, teeth floating, pisses in pants.
14. TOUGH: Bangs dick on side of urinal to dry it.
15. EFFICIENT: Waits until he has to crap, then does both.
16. FAT: Backs up and takes a blind shot at urinal, pisses in shoes.
17. LITTLE: Stands on box, falls in, drowns.
18. DRUNK: Holds left thumb in right hand, pisses in pants.
19. DISGRUNTLED: Stands for a while, gives up, walks away.
20. CONCEITED: Holds two inch dick like a baseball bat.
21. IMPATIENT: Always in a hurry, pisses down back of guy using urinal in front of him.
22. HUNTER: Gets out of camper, unzips fly, steps off cliff, never pisses, but does scare the shit out of himself.
23. WITHDRAWN: Places feet in urinal, pisses down leg, thus eliminates noise.
24. CROSS-EYED: Looks into urinal to the left, pisses into one in the center, flushes one on the right.
25. CURIOUS: Looks over at neighbour, pisses in neighbour's pocket.
26. COMPETITIVE: Stands back, and challenges others to distance contest.
27. SHOW OFF: Stands with back to urinal, and slings over shoulder.
28. CONFUSED: Woman in wrong washroom wondering what's with the funny sinks.

Mark Hugel

## An indication of how mathNEWS is put together:

It was the best of times, it was the BLURST OF TIMES?!?
You stupid monkeys!

## Test of Endurance

Back when I was in grade school, I used to be in pretty bad shape. I'm sure many people remember those annoying "endurance runs" we were forced to do. Well, I was always the guy who came in last. People would cheer as I crossed the finish line, applauding my effort, but it seemed more of a mockery than anything else.
However, as time went on, I became more and more active. Eventually, I discovered that working out could actually be fun. During the summer, I went with my friends to the gym three times a week. When I got to $\mathrm{U}(\mathrm{W})$, however, I was unsure that I'd have time to maintain my level of fitness.

Thus I discovered the biathlon that was being held on campus. I inquired, and then signed up. [Woo-hoo! Guns and skiing! Now you're talking! - LatrellEd.] The first event was an 800 yard swim and was followed by 5 kilometers of running. [Oh ... well, then...never mind. - LatrellEd.] Participating in a biathlon is certainly quite an experience. I stood in front of lane \#2, looking at the others around me. They were all wearing goggles, speedos, and those head things. I looked down at my beach swim trunks, and laughed to myself (Ha ha - I'm screwed).
We got in the water, and someone raised his hand, holding a gun. Shoot me now, I thought. Spare the lifeguards the trouble of having to revive me. By now I was rather nervous, but I'd been in much more embarrassing situations before, so it probably didn't show. Initially, the gun didn't go off, and everyone started at different times. But the second time, it worked, and we were off. I watched as the others began to increase their lead on me, and I considered speeding up. But my Mom always said to run my own race, and hey, I wasn't in this to race other people and see how I do; I was in it to prove to myself I could do it. Nonetheless, I could not ignore the fact that I was getting farther and farther behind. I kept my pace, but I was still worried... I was getting tired, and I wasn't even going that fast. My swimming has been described by some as "looking like I'm drowning." Somehow, I kept going. I didn't want to let myself down. My body was asking me to stop, just for a second, but my mind knew better. I counted each lap, and in true mathie fashion, constantly figured out what percentage of the swimming I had completed.

Last lap. I was so damn tired. I swam with all my might until I hit the wall with my wrist. Then, I pulled myself out of the pool, and I noticed that I could not feel my arms. No pain, no numbness, no cold or hot, no sensation whatsoever. Everyone started clapping and cheering. I thought to myself, "Great. Nothing's changed. I'm still last in the endurance run." Now, more than ever, I did not want to give up. I was so tired though, I could hardly think. I whipped on my clothes and ran out the doors of the pool. I remember being so disoriented, I wasn't sure where I was, all I knew was that I was going the right way.

The first lap of the run was good. I passed one person, and I was gaining speed. Just on the beginning of the second lap, I passed another person. (He stopped running, and I said to him, "C'mon man. Keep going. It'll all be over soon." So he paced himself with me for a while, and then I said, "Find your own pace now," and I sped up.

The rest of the second lap was grueling. Most of my body wanted to stop. But I kept going. I had to. If I could just make it a little farther, then just a little more, just a little more. The
last few hundred meters was a sprint. For those of you who have never been there, that final sprint is indescribable. It's when you're the most tired, and yet you have to work the hardest. My last dozen our so strides I remember grunting, just in sheer determination not to slow down at all until I had crossed the finish line. With one final growl I stepped on the white line and then began to slow down. Someone handed me water which I tried to drink but couldn't because I was breathing too fast.

Ironically, once I had caught my breath, there was no pain. No pain whatsoever. Just a feeling of euphoria, of bliss. I looked up to the blue sky, and smiled to myself, and thought, "I did it... I did it!" I kept walking so my muscles wouldn't tense up. I had beaten the biathlon, and I was proud.
Today I came into my room and sat on the ground. I opened up my bag to look at my assignments. $52 \%$. $61 \%$. $56 \%$. I felt like I wasn't going to pass this term. But then I remembered the biathlon. I remembered the transition I made, from hoping I could do it to seeing and knowing that I could. I went from the slowest swimmer who thought he would drown to the confident runner who passed two people.

And I realized, I'm not going to fail this term. I'm gonna rock it! It's just like the biathlon. I knew I could make it. I had doubts, but I knew I could make it. It was up to me to keep going. It was up to me to pull myself to the finish line, no one else. And with this in mind, I now realize that I have the ability to pass this term and all the rest, but I'm going to have to work until I can't feel my arms and I'm so out of breath that I can't drink. We all have so much potential; anyone could run a biathlon, and everyone could finish it, even the last of all endurance runners.

Jesse Bergman

## General l'Hôpital

Apparently, to be..

Max sat at the restaurant table, picking at his fishbone. Earlier, he'd resorted to calling the resort, where apparently a re-sort of schedules had delayed Ana Lysis' arrival. So Sir Vay's knit wit present, while pre-sent, hadn't been presented. So now Max was waiting for his contact - Mr. Y.

Max requested a dessert sample, then returned to gauging the situation. He didn't understand why Sir Vay was rejecting Ana simply because she was a model - apparently something about a model's imperfection. Well, he would rectify matters.
A ghostly apparition abruptly appeared, apparently appraising apples and apprising all of assonance applications. Max almost applauded. "I have reservations coming here. . .," Y noted.
"No, I made the reservations," Max corrected. "Care to sit and have a treat?"
"No, no time for tricks. Here's your departure component." Y put a ticket on the table then moved off in a random direction.

Max blinked. "Not staying for at least squares. . .?"
"I'm involved in a scatter plot," came Y's response. And he was gone.

Max picked at the residual of his meal. Well, now he had the means - he supposed he should get to the resort as soon as he could...
continued on page 10
continued from page 9
Doctor Waterson walked into the absolute value bar and glanced around. It hadn't taken too long for her to determine that there existed a correlation between all the strange hôspital events and one particular orderly on the night shift. Even the accidental labelling of "poison" jars to have an extra " s " in the middle could be explained. And the current assumption was that the orderly frequented this bar.
The Doctor walked up to the bartender and produced a diagram. "Do you know this person?" she asked.

The bartender blinked. "Count on it. I see her with relative frequency. Last I knew she was off to the 'High's Cool' ski resort."

Dr. Waterson frowned. She knew of it... the slopes were pretty easy compared to later places she'd found herself. Well, she might as well go and verify her hypothesis there... with a quick acknowledgement to the bartender, she departed - as another patron entered.
"Norm!" greeted the bartender. "What did you do for dinner tonight?"
"CS," Norm grumbled.
To be... or C?

Greg "hologrami" Taylor

## New Course For Math Students Only

## Communications + Mathematics $=$ ENGL 109M

Need a break from Algebra, Calculus and CS? Next term, why not complement your math courses with the Faculty of Mathematics' new communications course, only available to students in our Faculty? ENGL 109M (English Communications) is designed specifically for mathies, and will benefit you in both the business and academic worlds.

You'll learn oral and written communication skills that you can use on your next co-op job or in the classroom, including:

- Analysing problems and identifying solutions
- Writing convincing documents
- Organizing, planning and delivering presentations
- Working with team members to negotiate solutions

And lots more.
Assignments, reading and course materials are based on reallife, relevant academic and workplace situations in Math and CS.

For more information, e-mail ac2mcken@math, or call me at ext. 6648.

Don't delay. Pre-register for the Winter term in ENGL 109 M (athematics) before October $27^{\text {th }}$ in the Math Undergraduate Office (MC 5115). Course index number: 0140.

Andrea McKenzie

## Hot Stuff???

Just recently I was having a conversation with my architect friend, and we concluded that one of the few real uses of men is as bed heaters (meant in the most non-sexual way possible of course). But it's true; men are always warmer than women. We always get cold hands and it's an art to what annoying use we put it to. Out of curiosity, I thought to check just why this might be, and I actually came up with something substantial. First from a physiological point of view (don't mind the technical jargon, it just sounds cool):

Women tend to vasoconstrict at higher ambient temperatures than males. As a result, when the temperature is lowering, they will reduce heat loss more readily/faster than males. Yet this also means low blood flow to the peripheries/skin, meaning cold hands and feet. When the skin is cold, feedback mechanisms act such that heat loss (sweating, etc.) occurs at a higher brain temperature than when skin is not cold. So, if temperature is going up (affecting brain temperature?), women start to sweat later, making them more uncomfortable in the heat.
This also explains a possible greater level of discomfort in heat, and the difficulty of moving between the two extremes of heat (explaining why women in Miami may have a particularly difficult time walking from the parking lot to a sub-arctic grocery store!), although less sweat glands probably contribute to the greater level of discomfort in heat. Now from a psychological point of view (for all of you taking Psych 101, bring this one up in class to quiz the teacher):

Perhaps women's earlier response to cool temperatures is part of the same adaptive mechanism that makes them do things to avoid exposure to extreme cold. In our ancestral environments, this might have increased their chances for survival (and that of any offspring they might be carrying either inside or outside of their own bodies). In other words, women might be programmed to perceive coldness more quickly than men because the response has been more adaptive.

So now, boys, when someone tries to complain that men are useless, just explain their handy use as a water bottle (for those of you unfamiliar to this, that would be what was used prior to heat blankets, i.e. a bottle of hot water).

Lara Thompson

## Operation Christmas Child

One box can make a world of difference! Something as simple as a gift-filled shoe box will make a world of difference to a needy child caught in difficult circumstances. Once again this year we are collecting shoe boxes for Operation Christmas Child. There will be a table located near the C\&D on the third floor of MC from noon to $1: 00 \mathrm{pm}$ during the week. Filled boxes need to be returned by November $21^{\text {st }}$ by $1: 00 \mathrm{pm}$. Stop by to find out more information or see me in MC6113 (x6711).

## brocTOC

Hello there. I'm here to tell you about BROC, the club for undergraduate math students who like broccoli, as opposed to the scum who fester within NOBROC where they do not like broccoli. It turns out that the article that NOBROC wrote in the last issue brought the worst in everyone.

During the past week, this is what has happened to our happy little club:

- Our office was spray-painted with the words "Broccoli is for losers".
- Our president received some lurid photographs of broccoli in compromising positions.
- The club received a note saying that we better start liking "real" vegetables like corn or peas or we'll end up in the river covered in cheese sauce.
- We were mailed an old photograph of a group of broccoli assassinating JFK (obviously fake).
- Someone left a flaming bag outside our door. An office worker's best pair of dress shoes were ruined in the incident.

We know that the people in NOBROC are behind this heinous acts. We at BROC will not stand for it. We plan to picket outside MC 3094 until the members of NOBROC fess up and apologize to us. We will not be treated like second-class citizens. If you wish to participate drop by our office in MC 3075A and find out how you can fight back against NOBROC.

We like broccoli. And we're proud of it.
In other news, BroccoliFest '97 is in full swing. Unfortunately, the turnout has been low to the first few events due to that Oktoberfest thing. Over half of the people who showed up to one of last weekend's events left after 5 minutes when they found out we were serving broccoli and not beer. But that's okay. The 3 people who remained had a wonderful time.

We are still trying to get some sort of broccoli dish to be served at the Bomber. Unfortunately, our efforts have had little success. Turns out broccoli doesn't taste very nice after it has been deep-fried, so the Bomber is reluctant to add it to the menu. But we will keep trying and we hope that soon you will be able to enjoy "Broccoli bar snacks" with your 50 (or whatever you drink) whenever you visit.

Our new T-shirts are delayed once again. The people that are doing them keep telling us that every time the shirts are made, the workers seem to start laughing uncontrollably and ruin the shirts in the process. I don't buy this reason. . . like, would a saying like "Broccoli. It's full of yum-yum-nummy goo-goo-goodli-woodliness in cheesy-wheesy sauce" cause you to start laughing uncontrollably?

Course not.
Anyways, that's all for this time. Take care, everyone.
nobrocTOC
Unbelievably, the BROC Club has restarted. It had to happen sooner or later. Unfortunately, it's sooner.

Since it is the sworn duty of the members of the NOBROC Club to uphold truth, justice, and the non-broccoli way, we'll be doing whatever we can to shut the BROC Club down as soon as possible. Rallies are being organized as I speak, and banners are being designed.

Before we get started, allow me to remind you about a new rule passed on to us by the man upstairs. And you know who I'm talking about. I have a feeling that a certain high-ranking official in the Math Faculty likes broccoli and has come down hard on the NOBROC Club. This time, if there happen to be any "spats" between the BROC and NOBROC clubs, we cannot use broccoli stems as weapons or projectiles. This offense, known as "stalking", garners a expulsion.

Instead, the NOBROC Club will be doing the next best thing to fight its battles: a propaganda war! We'll be plastering the school with anti-broccoli literature, sending spam email portraying the evils of broccoli, and singing chants extoling the virtues of a broccoli-free diet at all hours of the day.

If the students here are told enough times that broccoli is bad, then it may sink into some of them. By golly, if even one person is converted from a broccoli-eater to a veggie-hating, greenthingdespising, broccoli-repulsing mathie, then I think we can say it was worth it.

Let's face it, it's going to be a tough battle. Some people just happen to love the sweet, sweet taste of broccoli in the morning. We can pity them, but we can't change them. No, we need to go after those that are sitting on the fence. Those that eat what's put on their plate when they go home on weekends, those that just happen to like all foods regardless of taste or texture, and those that just don't know any better. We have to get them to understand that broccoli just isn't right! We've got to get through to these people, before it's too late. And the children! Won't anybody think of the children!

I know what you're saying. You're saying "We're crazy. It's just a vegetable. Who cares who likes it or doesn't like it. For crying out loud, I've got midterms to worry about." Well, you'll be sorry. You'll be sorry when you see broccoli in every eatery on campus. You'll be sorry when it's the only thing to eat on campus. And you'll be sorry when the broccoli-lovers take over the world. And then you'll come back and say "Yep, you were right. What a terrible, terrible, terrible day."
I seem to have run out of room for non-broccoli-war related items, but let me get them in quickly: there will be a referendum next week on whether we should expand the scope of the NOBROC to include other vegetables; we have a guest speaker at next month's NOBROC video night (Don't miss it!); and we're still looking for someone to be nominated to become Chairperson.

Get involved! If the other clubs at $\mathrm{U}(\mathrm{W})$ aren't for you, stop by the NOBROC office in MC 3094 and join the club. We've got nifty anti-broccoli membership cards with holograms!

Till next time, have a broccoli-free week!
NOBROC Vice-Chair CasEd

## New Fees For Math Students

But first, a flashback...

There once was a time at $U(W)$ when Math students didn't pay fees for courses and didn't pay fees to print out stuff on the laser printers. Mathies spent all of their money on the Four Basic Money Groups: Tuition, Food, Housing, and Co-OpFee. After these four groups took their share of the students' bank account, there was hardly enough left to cover the monthly service charges. But that was OK, since we could print out our assignments and pictures from the web for free, and we didn't have to pay anything extra for the classes we took. Every student actually received a free generous helping of print quota, plus more for each course.

When was this time? Why, it was just earlier this year.

## So, to continue the tradition...

The Math Faculty, in association with $\mathrm{U}(\mathrm{W})$, proudly announces some new user fees for Math students. These fees are retroactive, and you will receive a bill on the backside of your degree. If you don't promptly pay your bill after graduating, hired goons will 'retract' the degree from you. In the event that you are charged for a fee that you feel that you did not incur, then pay it anyways and direct your complaints to the Complaint Dept. in MC 3039.

- Just like with printing, the MFCF has real costs to pay for every time a program is compiled. So as to not penalize those students who don't use a compiler during their studies here (i.e. students not in CS, gifted CS students who type in a program correctly without need for debugging, CS students that suck), a fee of $\$ 1.00$ will be levied for every compilation of a program. This fee will go towards the costs of compiling, linking, and assembling the program, which up to now has been paid for entirely by MFCF, bless their souls.
- In an attempt to thwart bicycle theft, a newly hired bicyclesafety manager will patrol the outside of the Math \& Computer building. The manager's duties do not include stopping people from stealing bikes, since we do not want to put the manager in any sort of danger. (It is a well known fact that bike thieves are among the most lethal of criminals.) Instead, the manager will check to make sure bicycles parked outside MC are properly secured to a $U(W)$ issued bike rack. Bikes found improperly secured will have an additional bike lock attached. The $\$ 75.00$ fee for these unbreakable locks will have to be paid before keys will be issued.
- Since the signs don't seem to be doing any good, a $\$ 2.00$ fee will be charged for anybody who uses the MC elevators to go up or down only one floor. All four elevators will be equipped with a slot that will accept toonies. If you are on the third floor when you enter the elevator, you will not be able to choose the second or fourth floor unless you first insert a toonie. If you have no choice because of a handicap (i.e. you have a broken leg or you're an AM student), then get a receipt from the elevator and bring it to the Complaints Dept. in MC 3039.
- You have undoubtedly noticed that the "No Food or Drink" rule has gone completely out the window in all of the computer labs in MC. To accommodate those with food or drink (since MFCF sure seems to be lenient about this), a pull-out tray will be affixed to every computer desk in the computer labs. This tray will be equipped with a cup-holder plus an area to hold the food. For the duration that the tray is pulled out and in use, a fee of $\$ 0.15 /$ minute will be charged to the account of the person currently logged onto the corresponding computer.
- Due to the lack of red marking pens at $\mathrm{U}(\mathrm{W})$ (It appears that most of the red markers are being using to colour all the tape at Needles Hall), a fee will be charged for every midterm and final exam that you write. Since a perfect paper will require no red markings, the fee will be dependent on the mark of the exam. The fee that you will charged is equal to $\$ 0.10 \times(100-$ Mark $)$, where Mark is your mark out of 100 . This means that you will be charged 10 cents for every wrong answer. $\mathrm{U}(\mathrm{W})$ is pleased to note that this fee also provides incentive to do well on your exams.
- A fee of $\$ 40.00$ will be charged to all members of the CSC to pay for the installation of shower stalls in MC3036.
- To discourage students from asking the MathSoc Exec for Midterm Packages when MathSoc is closed, a fee was briefly considered. It was decided instead that students asking for Midterm Packages when MathSoc is closed will be taken outside and shot.
- Students who enrol at $\mathrm{U}(\mathrm{W})$ starting in 2000 will be charged an administrative surcharge of $\$ 10.00$ to cover the costs of expanding the student number by two digits.
- A fee of $\$ 2.00$ will be levied against all students who bring their bags or knapsacks into the C+D. This fee covers the costs of the muffin you shoplifted.
- In an effort to maintain the sanity of the faculty and students at $U(W)$, a fee of $\$ 50.00$ will be charged to any mathNEWS authors who include more than three puns in their article. The fee doubles if the puns involve the word 'Hopital'.
- A user fee of $\$ 0.50$ will be charged for every book taken out of the Dana Porter library. The fee will help purchase excess copies of "Data Structures \& Their Algorithms" to stick underneath Dana Porter in an effort to stop the building from sinking.
- It has been noted that there is a correspondence between the quality of issues of mathNEWS and the whether students pay attention in class on Fridays. Since students already pay for mathNEWS through their MathSoc fee, an additional charge cannot be levied. Instead, the editors of mathNEWS will be charged a $\$ 100$ fee each for every issue that is high in quality. In retaliation, the editors of mathNEWS have avoided paying this fee by printing crap.


## gridCOMMENTS

Howdy, folks.
We only had 4 submitters this time around (kinda disappointing). Anyways, those people were: Reza Shahidi with 3 incorrect squares, "Hercules, Xena and Sinbad", Ian "The Word Guy" Facey and Jean-Guy! (all with perfect submissions). By random draw, our winner is "Hercules, Xena and Sinbad"! Stop by the MathSoc office sometime to pick up your prize.

Ya know, I never have anything relevant to say in the gridCOMMENTS. I remember Gridby (the last guy to this job) used to go on and on in his gridCOMMENTS. Of course, most of it was to explain how to do his puzzles considering they were complex and confusing most of the time. But, I just give you a run-of-themill gridWORD because. . . well, because I care... and I don't have the time or brainpower to come up with really challenging, brain-exploding stuff.

Anyways, submissions are due on Monday, November $3^{\text {rd }}$ at $6: 30 \mathrm{pm}$ in the usual spots (email bcfox@undergrad.math, BLACK BOX or hand it to me in person or in the mathNEWS office). Good Luck!

Latrell "GridBoy" Fox

# Yippee-Kigh-Yay 

A Bruce Willis Movie Night

The night before Hallowe'en, MathSoc will be holding its fourth Movie Night of the term. We'll be showing The Fifth Element and Die Hard 3: Die Hard With A Vengeance, two very different Bruce Willis films. In one, he's a taxicab driver in New York City of the future and in the other he's a cop on the edge in New York City of the present.

You can see them at 7:30pm on October 30 in DC1302. Admission is $\$ 1$ plus a can of food, or $\$ 2$ if you'd rather eat that can of food yourself. What better way to spend Hallowe'en Eve?

The MathSoc Person Who Writes MovieNight Articles

| A | B | E | S |  | D | A | R | T | H | V | A | D | E |  |
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## Pros and Cons of Frosh Week

In light of the fact that there has been recent discussion on the topic of cancelling frosh week, some of the staff here at mathNEWS decided we would take an unbiased look at the situation and present arguments for and against the weeks of activities.

| Pros | Cons |
| :--- | :--- |
| Meeting people | Peer pressure |
| Kidnapping people | Getting lost on the 6 |
| The floor |  |
| AWOL pub night | Grievous waste of two-ply |
| Bomb making skills | Toga Party |
| Lineups |  |
| Learning true math spirit | Team chants |
| Cute frosh/leaders | N.F.F. |
| Being a Super Frosh | Not being me |
| Skipping time <br> management seminar | Time management <br> seminar |
| Tie Guard | Sub-zero temperatures |
| Football game | Waterloo cheerleaders |
| Laurier cheerleaders | Laurier football team |
| Discovering Jolt | Overdosing on Jolt |
| Naked people | Naked people |
| Finding your way <br> around campus | Failing to find your <br> way around campus |
| No parents | Laundry |
| Frosh week food | Village Food |
| Sleeping in | Sleeping in on village beds |
| Boot camp | Laundry |
| Concerts | Seminars |
| Terrorizing the leaders | Being terrorized by frosh |
| Frosh kit | Frosh flu |

Mark Hugel \& Dan Pollock

## A message from the editors

Turns out we have an apology to send out.
For the last issue, the PMC sent us an article publicizing the talks they just had recently. LatrellEd was told that something was on the way. However, we never got it. And so nothing got printed. That made some people in the PMC a little mad. Can't blame them.
Anyways, turns out there's a little quirk in the production system. If you send an email to mathnews with "article" in the subject line from picard.math, it somehow doesn't get to us. Works alright from other machines, but not that one. Why that is, we don't know, but we'll eventually find out.
If you send us an article and are worried about whether we got it or not, drop us a line, bug us until you drive us nuts, or knock us down in the hallways if you see us. We're very approachable and we love more articles. We'll take all the articles we can get.
And to the PMC... sorry about that. We hope this hasn't caused any hardship or inconvenience.

Your apologetic editors

## Spermatikos Logos \#3

Hey, folks! Thanks to all who submitted. I have received 6 (correct if necessary) perfect submissions from Claire Bilodeau, Gigi Barbett, Ian "The Word Guy" Facey, Ian Prest, Richard Wallace, and the Royal Recreational Lemming Society. The Bonus question was answered incorrectly (ok - it was a little vague, but the other guys got it) by Ian Prest and the Lemming guys, Richard and "The Word Guy" got it with one little mistake, while Claire and Gigi both had a correct bonus. So by random draw, this week's winner is Claire Bilodeau! Pick up your prize in MathSoc.

Last week's total correct solution was:

| Room | Colour | Contents |
| :---: | :--- | :--- |
| 1 | Indigo | Yoda, Lord of Real-Time |
| 2 | Jailbird-Striped | Exit |
| 3 | Burgundy | Backpack full of dynamite |
| 4 | Lavender | .5 beer |
| 5 | Crimson | Needles, minion of hell |
| 6 | Khaki | Earplugs |
| 7 | Deep Purple | Endless Bureaucratic B.S. |
| 8 | Alabaster | Dinner at Village |
| 9 | Hellfire Orange | Caffeine Pills |
| 10 | Electric Yellow | Doron, King of Engineers |
| 11 | Greenish-Brown | Start |
| 12 | Florescent Pink | Stomach Pump |

Bonus Question: (and no you can't pass by demons without killing them) 11-12 (get pump) 11-8 (kill dinner) 4 (get .5 beer) 8-11-12-10 (use beer on Doron) 6 (get earplugs) 10-12-11-7 (use plugs on Bullshit) 3 (get dynamite) 7-8-5 (use dynamite on Needles) 9 (get Caffeine Pills) 5-4-1 (use pills on Yoda) 2 EXIT

Thanks again, and here is this issue's puzzle. It is a pretty hard one, so good luck... and for those of you who had trouble with last week's, here's a hint... when you are stuck, try making assumptions to see if they produce contradictions. Submissions are due at $6: 30 \mathrm{pm}$ on Monday, November $3^{\text {rd }}$ and can be stuffed in the BLACK BOX outside the Comfy Lounge or emailed to rjstewar@undergrad.math. The bonus question for the week is "What the hell does the title of my column mean?"

During his third year, Rube Miller (infamous PCSC member) did an exchange at North America's other faculty of mathematics at the University of Oolretaw. People at $\mathrm{U}(\mathrm{O})$ are all very lazy so they take automated trollies between classes instead of walking. The map of the CM (Computer and Math) Building below shows that the building is made up of three interlocking circles. Each circle has an automated trolley that travels around the circle in one direction. It takes exactly one minute to travel between stops. The trollies are named, in some order, the blue line, the red line and the yellow line. On his first day at $\mathrm{U}(\mathrm{O})$, rather than getting a tour of the building, Rube was handed the map and the clues below. Within half an hour he was finding his way around the building with ease. Can you use the given information to
match each room to his location? (N.B. the room locations are labeled A through M for convenience only, the letters have no other significance).

- The Printing Room is on both (and only) the Blue and Red lines
- The longest trip from the Big Lecture Room goes to the Real-Time Lab
- All of the computer science rooms: the Hardware Room, the Graphics Lab, the Real-Time Lab, the Printing Room and the Unix Lab are on the Blue line.
- The Stats Lab, which is east of the Big Fucking Lecture Room, is not on the same trolley line as the ActSci Lab which is west of the Really Really Big Lecture Room (which is not to be confused by the Really Big Lecture Room)
- The quickest way to get from the Printing Room to the Graphics Lab (which is to the immediate north of the Printing Room) takes 4 minutes.
- The Trip from the Unix Lab (which is due east of the Printing Room) to the Graphics Lab takes 3 minutes.
- Your O\&C Assignment must be handed in at the Combinatorics lab (which is on the Yellow Line) (N.B. this requires getting off the trolley). Following this you should proceed immediately to the Optimization Lab (which is on the Red line). If you are leaving from the Big Lecture Room be sure to bring some notes to study, you will have a 16 minute wait between handing in the assignment and arriving at the Optimization Lab
- The one room on all three trolley lines is not a computer science room
- The Big Lecture Room (which is only on the Red Line) is due west of the Really Big Lecture Room (which is only on the Yellow line)

Robin Stewart


## mathNEWSquiz \#3

## So far: Gremlins 2, Swan 0

Hello, my good friends, and welcome to yet another Squiz. I wish to apologize for the quality (and the lack thereof) of last issue's Squiz. Apparently, there were a couple of errors made on it, most notably the first question of the Bier! category. I first thought that a beer was named after a son of an American President, but thanks to one of our alert staff, I was wrong. However, it was a little too late for this correction to be made. Luckily, it did not affect the results. Again, my heartfelt apologies to all those Squizzers who may have been confused about this question. I assure you that this won't happen again, at least once the painful period of midterms pass.

As for the answers for the second Squiz, here they are in vivid black and white: Song Lyrics: 1) "Superman's Song" - Crash Test Dummies; 2) "The World I Know" - Collective Soul; 3) "My Iron Lung" - Radiohead; 4) "Medical Love Song" - Monty Python. Bier!: 1) None (although there is a beer called Billy Beer named after Jimmy Carter's brother); 2) "It doesn't get any better than this"; 3) ubhiye (pronounced oo-bee-yeh); 4) Interbrew; 5) Hamburg. Business Today: 1) 1917; 2) O’Connor Partnership; 3) Citibank; 4) Bank Hapoalim; 5) Dallas, Texas. Movie Quotes: 1) "Men In Black"; 2) "George of the Jungle"; 3) "Face/Off"; 4) "Excess Baggage"; 5) "Airplane II".

It seems that this is a very busy time for mathies and engineers. Only three were submitted this time. The three brave and loyal submitters were Ian "The Word Guy" Facey with six points, The Royal Recreational Lemming Society of Canada who scored twelve points, and Jason Smulevitch, with sixteen points. Therefore, the winner of the Second Squiz is Jason Smulevitch. Congratulations to both our submitters and keep up the good work. The winner can pick up the prize from MathSoc. Now, some people have told me that the second squiz was not up to snuff with other Squizzes in the past. As always, I have tried to do my best to ensure that people will submit by making them as challenging as possible. So, I appreciate any constructive input to make the Squiz better and will respond accordingly. Without any further delays, here is the third Squiz:

## Song Lyrics

One point each for the song name and artist, and one extra point for the general theme

1. "There's a world outside your window, And it's a world of dread and fear, Where the only water flowing Is the bitter sting of tears."
2. "I've got bills to pay and children who need clothes. I know there's fish out there, but where, God only knows. They say these waters aren't what they used to be, But I've got people back on land who count on me."
3. "Our nearest and dearest we don't want confessing; It's quite sort of depressing to have them so near. Our feeling suppressing for lightly acquiescing, And perfectly professing we're glad they were here."
4. "I'm driving a big lazy car rushin' up the highway in the dark.

I got one hand steady on the wheel and one hand's tremblin' over my heart.
It's pounding, baby, like it's gonna bust right on through, And it ain't gonna stop 'til I'm alone again with you."
5. "And so we are told this is the golden age,

And gold is the reason for the wars we wage."

## Scotland

1. What island recently bought out its landlord by its citizens?
2. On August 15, 1057, who was killed by Malcolm III?
3. Who wrote "Ode to a Haggis"?
4. What Scottish Football Association team is the furthest north?
5. Mel Gibson portrayed what great Scots hero in 1995 ?

## Statistics

You knew I'd eventually get to this topic, didn't you?

1. This continuous distribution has neither an expectation nor a variance. What is this distribution called?
2. What continuous distribution was named after an economist?
3. If $X$ is a Gaussian random variable, then what distribution should $X^{2}$ yield?
4. What is so unique about the Bernoulli distribution?
5. What is the moment generating function of a Gaussian random variable?

## The Seventies

1. What trusteeship of Australia was granted independence in 1975?
2. What president was overthrown in Chile in 1973?
3. Which film won the Oscar for best picture in 1978?
4. What TV show was rated \#1 during 1971-76?
5. Who was the leader of the federal NDP during 1971-75?

This is all for now; I know that the extremely painful period of midterms, assignments and job searching will take time off your already busy schedule. However, spare a few minutes and submit your answers through one of three easy methods. You can submit your answers in the BLACK BOX, e-mail to joswan@undergrad.math or if you have the good fortune of seeing me in the halls, at home or in the Student Life Centre, submit your answers (handwritten, of course) to me in person. Just do not forget that these answers are to be in by November 3, 1997 at 16:30... no exceptions whatsoever! So, to all my faithful friends who submit and to all who don't, good luck on you midterms, co-op interviews and I hope you submit. And don't worry, no intentional trick questions will appear in anymore Squizzes this term, honest!

John "The Psuedo-Squiz Master" Swan Mike "Hammer" Hammond Brian "Calculus Cowboy" Fox


## Grid Clues

## Across

1. Movie
2. Everybody's got 'em
3. Similar
4. Cartoon dog
5. Crater
6. They sometimes march
7. Spool
8. 206 to the Romans
9. Old cold game
10. Genesis song (early 80's)
11. Conjunction
12. Type of music
13. Beginning for in and it
14. Genesis album
15. Chasm
16. Vomit
17. Bob or Natalie
18. Smoothing device
19. Genesis album
20. Eminence on the skin
21. Word associated with low calorie beer
22. Screws up
23. Used in drinking
24. Beatty et al.
25. Sault - Marie
26. Type of music
27. Type of booze
28. Genesis album
29. Mug
30. Ark guy
31. It's in Norway
32. Transportation vehicle
33. Pueblo Indian
34. Unload
35. Distribute
36. Party for guys
37. A lake

## Down

1. Request sheet
2. Notion
3. A charge upon property
4. Type of fruit
5. "365 days a year."
6. Every one
7. Part of a church
8. Idle and Roberts
9. Word used to describe a certain mathNEWS editor/gridMASTER
10. Depict
11. Cordage fiber
12. Bull Steve
13. Compass direction
14. Tilt
15. Egyptian measure of weight
16. Melt
17. The Babe et al.
18. Stop!, s'il vous plaît
19. American cigarette brand
20. Wee, mischievous, charming
21. Eucalyptus tree
22. Famous people
23. Item of clothing
24. Mendacious person
25. Diminutive suffix
26. Instead
27. Musical instrument
28. Sonic
29. Be , in the past
30. Have a seat
31. Quarts are made up of them
32. Neck garment
33. It will (short form)
34. Composer Hefti
35. Wine
36. Transportation vehicle
37. A Turner
38. Utilizer
39. One hundred, two fifties and one (to the Romans)
40. Pit
41. Resort
