# mauth NEWS 

Volume 73, Issue 5
Friday, April 4, 1997
GOOO MPRUI BAD APRU FOOSS PRANK FOOLS PRANK
DISMANTLING THE DEAN'S CAR AND STICKING IT ON TOP OF THE MATH BUILDING.


# $\cos$ Science Club <br> A Student Chapter of the ACM 

## CSC Flash

It is the end of another term of CSC events and thus a good time to look back and to the future.
Looking back: we've had a good term. The library is larger than ever, we had several talks and they were well attended. We fielded another talented programming team and further enhanced the reputation of Waterloo CS abroad. Whew! Time for a break. If you would like to join us in our relaxation, come out to the Ctrl-D ( ${ }^{\wedge}$ D) Dinner this Friday at 6:30 at the OEP.
And to the future: in the immediate future, you may want to purchase your membership for next term and disk quota for next term. Quota is ridiculously cheap: $\$ 1.00$ per MB, $\$ 15.00$ for 20 MB.
You may also want to consider becoming involved in CSC activities next term. You can come to our meetings, or just organize a talk or event that you would be interested in attending. We will support you with our volunteers and other resources. This is a great way to make a contribution to CS at Waterloo.

Calum T. Dalek

## ultraCLASSIFIEDS

Rude Uncle:
Tonight at 97 Columbia?
Pasty:
Is the cargo van booked yet?
Jerky:
Is that hair for real?
The World:
I'm all by myself.

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editors; however, any opinions expressed herein are those of the authors editors; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or mathNEWS. Current and back issues of mathNEWS are available electronically via the World Wide Web at http://घvy.undergrad.math. uraterloo.ca/ mathnevs. Send your correspondence to: mathNEWS, MC3041, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1, or to userid mathnorseundergrad.math. uraterloo.ca on the Internet.
Editor: Brian Fox a.k.a. Calculus Cowboy, "My Name is not Edgar Bennett", Lattrell Patton, The Blank Disk, "You the man... No, YOU the man!", Bri-Bri, "Hey, Fox!", Slick.

C.M.

## Report from the PMAMC\&OC

 HairSince the President's response to the MathSoc VPF's question regarding his hair was so rudely interrupted at the last MathSoc Meeting, we bring you here the complete answer. For the record, this took place in open session.

My hair was cut at the Apple II Salon. It was dyed plum with assistance by Matt Corks. Incidentally, "Corks" means "maker of purple dye", which is probably more than a coincidence.
In other hair news, Freida recently combed her hair, but the president did not.

## Shopping Trip

On Thursday last week, the PMAMC\&OC organized a shopping trip. We bought several books from the sale at the bookstore, and members are welcome to come to our office to take a look at the newly available selections. Of course, our members probably already spend way too much time in the office anyway, so this is really a cheap excuse to get more people to pay membership fees right before the end of term.

## Solution to Last Issue's Problem

Every cyclic graph can be embedded on a plane, and so it follows that every cyclic graph can be embedded on a double torus. If you didn't get this, I suggest you study harder for your C\&O 342 final.

## Problem to Ponder.

Something to think about during exams: we can define strongly prime numbers as those which are prime no matter which base they are represented in. It turns out that most primes are strongly prime. Can you think of examples of strongly prime and weakly prime numbers?

## Your friendly neighbourhood PMAMC\&OC

## How Can I Help Choose the Next Dean?

Got a smoke?

As some of you may know, Dr. Kalbfleisch's term as the Dean of Math is ending at the end of June next year. A committee has been struck to select the next Dean of Math, and we're looking for feedback from you. We want to know what qualities you believe are important in a Dean. It is extremely important that you tell us what you think; the Dean of the faculty not only makes sure that things are running smoothly, but also gives the faculty direction. This will effect not only your education, but the future of this faculty and its reputation. It is a rare occurrence that a person can have such an impact upon one's faculty as choosing its Dean, so please let us know what you're thinking.
Please send your comments to csbuchan@undergrad.math. All comments and feedback will be completely confidential if
desired. desired.

## lookAHEAD

| mathNEWS |  |
| :---: | :---: |
| April 4 | Issue \#5 arrives (That's all, folks!) |
| Important Dates |  |
| April 4 | Math courses end |
| April 7 | Electives end |
| April 10 | ELPE - PAC@ 7pm |
| April 11 | Exams begin |
| April 24 | Exams end |
| April 25 | Get out. |
| Miscellaneous |  |
| April 10 | Ice cream that's been in the |
|  | Scoops freezer the whole term is auctioned off |
| April 11 | CS 100 Assignment 1 due |
| April 14 | Hale-Bopp Comet renamed "The John Shaft Comet" |
|  | because the name sounds cooler |
| April 15 | Astronomers Hale and Bopp asked to relax and told to "Stay loose, baby" over the name change |
| April 17 | Day of some significance |
| April 18 | Day of less significance |



## Pink Tie Pledge

Okay folks, this is it! Graduation is just around the corner, and with it, the Pink Tie Pledge drive! It doesn't seem as if we will be reaching our goal this year, but hey... we tried!
As of March 31, the Class of '97 raised approximately $\$ 33000$ in pledges! (With a participation rate of only $6 \%$, not bad at all!)

On behalf of the Faculty of Mathematics, and all future $U(W)$ Math students. . . THANK YOU for your very kind and generous gifts.
If you are still wiling to pledge to the Pink Tie, you can still hand in your pledge card to the MGC office, or to the Assistant to the Dean, Shirley Thompson. She is located on the $5^{\text {th }}$ floor beside the Undergraduate Office. If you need a pledge card, you can pick one up outside the MGC office, MC3029.
Support the future of $\mathrm{U}(\mathrm{W})$ math! PLEDGE TO THE PINK TIE TODAY!!

PTP Director Paul Santos

## Prez Sez

Hi Mathies. Well it's my last article for the term and it looks like I managed to keep my promise to the editor to write a Prez Sez for every issue. As the term draws to a close I am forced to reflect on what happened. It never seemed like much as the term went by but as I look back I realize how much really went on. I thought I'd work out how much time I actually ended up spending in this office. It looks like it was at least 200 hours. Let's go with that. At my grand salary of $\$ 0.00$ an hour, that works out to oh... carry the $0 \ldots \$ 0.00$. Not bad for a term's work.

Seriously though, the reward I receive for this job is the job itself, not the line on my resume (if I ever actually make up a resume). I really enjoy doing my best to make this faculty a better place for students and only feel sorry for you students that miss out on the chance of getting to know the great people that help do that job. If I had to name all the names of those great people this article would take up way too much space so all I am going to say is thanks to all of you. You know who you are and I hope you'll come back and join us again next term. If you're graduating (or otherwise completing your studies as we sometimes say), good luck in whatever you do. Have a great work term or summer, good luck on your exams and see ya.

## André Cousineau

 President, MathSocP.S. Don't forget to come to the party at Jonny's place tonight. 97 Columbia St. W. See ya there!


## mastHEAD

## Man, time to consider a career change...

Dateline: 12:30am Tuesday morning. [As opposed to 12:30am Tuesday afternoon? - HammerExEd] Here I am sitting in my office trying to read over everything so I can go home and get some sleep. I've been so tired and unenergetic all day I'm surprised I've made it this far. At least I got to catch the last minute and a half of regulation and all of the overtime between Arizona and Kentucky for the NCAA men's basketball championship. (Arizona won in case you didn't know... woo hoo!)
Well, here we are at the end of yet another term... they just seem to fly by sometimes, don't they? Well, after a $3^{\text {rd }}$ stint as editor, I still haven't decided whether or not this job gets any better or worse with time. Anyways, enough with the ramblings... here's the dedicated lot who came out tonight, with their term, program, and what they would like to see added to the C+D during its renovations...
Greg Morey ( 2 A CS, $\mathrm{A} \& B$ and, of course, cage dancers (Spice Girls perhaps?)), Mike "Hammer" Hammond (1B Master's, More right angles - it's supposed to be the "Right Angle Café," isn't it?), John Swan (3N ActSci/Stat, Given this term, Bayer ${ }^{\text {TM }}$ (aspirin)), Chadwick Severn (2A CS, Tickle Me Donuts), Ian Milligan ( 3 N Math(ish), A door out to the balcony - Oh... oops. An unlocked door out to the balcony then...), Darren Rigby (4N6 (Police Sciences), CD's, computer disks, caffeinated drinks, chests of drawers, closet doors...), Greg Taylor (2A Math, Tabs? (credit, not the drink) Oh, and pictures of Mizuno Ami.), Mike Thorsley (3N AM/PHYS, Disco ball and dance floor), and Stu Pollock (4D AM/CS, A car wash).
Thank yous go out to Domino's Pizza for the pizza and pop, as well as Marion and all those copyin' types at Graphic Services.
Well, that wraps up this term. Good luck on your finals!
Brian Fox (4N AM, Dancing girls... and lots of 'em!)

## Cloud 9 Review

I'm sure you, average reader, have seen the article in the last gaZETTE that describes the essential plot of Cloud 9. Therefore I won't bore you with the details of the plot. However, that article does not do justice to the level of intelligence and humour portrayed. When I say humour, I do not refer to the slapstick, guffawing variety. I refer to humour in the context of a dramatic situation that alleviates emotional tension in a scene. But I am starting to ramble from the point of this article.

Cloud 9 explores the sexual relations of the human race without being overly dramatic, abstract or dull. It is an entertaining and intelligent exploration of not only how we relate, but how we perceive relations.

One may credit this mostly to the writer, Caryl Churchill, and the text she wrote. I beg to differ. The actors and actresses did an excellent job of filling out each character, while keeping the personality within context to the point that none of the humour and none of the intelligence of the lines was lost. More impressive still was their ability to switch between the characters of the past and present from Act 1 to Act 2, as well as during Act 2. This, of course, was impressive in part because of the incredibly quick costume changes that were made throughout Act 2.

## prof QUOTES

"I may be easy, but I ain't cheap!"
Furino, MATH 136
"Oh! - [goes to write in planner] - Excuse me... I have so few thoughts I want to write this one down."

Furino, MATH 136
"[Galois'] teachers were incomparably stupid... although that may be no different from now."

Furino, C\&O 351
"Let's just pretend you didn't say that."
Wainwright, MATH 138
"What is it about induction proofs that causes people to walk out?"

Jackson, MATH 235
"O.K., let's say you were an engineer."
Jackson, MATH 235
"Imagine you were using three blind mice to solve a quadratic equation."

Jackson, MATH 235
"So any questions about that? Too early in the morning? Just going to copy it down and look at it later? Okay."

Burkowski, CS 448
"I write this down and I expect applause. You guys are going 'I'm gonna die.'"

Best, C\&O 367
Student: "Why can we assume that?"
Prof: "Because I have tenure."
Best, C\&O 367
"The answer is yes, but really no."
Djokovic, MATH 245
"And this is where Calculus makes its death wish explicit... this is read 'die $f$ by die $x$ '."

Talvila, MATH 138
"...the Greek letter rho. Now you know where the song 'Rho, rho, rho your boat' came from. There was also a song 'Omega, omega, omega your boat', but it never really caught on."

Talvila, MATH 138
"I wish I was taking this course. It's easy!"
Viraswami, STAT 230
"Wouldn't that be great to have the title 'Countess of Champagne'? Well, I guess you could get that one way or another."
"I know some lunatics in the teaching profession, and I'm not one of them."

McArthur, ENG 208H
"...năr, năr, năr, năr, năr. I'm dramatizing."
Nu, CHINA 101R
"It's against the fundamental rules of mathematics, or something silly like that."

Mann, CS 679
"What does this suggest they're good for, besides nothing?"
Mann, CS 679
"If I said 'all three of them', I meant 'all none of them'."
Mann, CS 679
"What? Do you think I'm a geek. . . because I think it's interesting."

Poisson, AM 475
"I'm going to ask the metric. 'Hey, metric, what's the meaning of r?' "

Poisson, AM 475
"You only allow your friend to see your private parts."
Vreugdenhil, CS 246
"If you break this convention, we'll have your heads. . or your grades."

Vreugdenhil, CS 246
Holding up a piece of paper: "Like this piece of sheet."
Miskovic, MATH 237
"At first it looks hard and strange but afterwards, you will like to play with it."

Kannapan, MATH 126

## Now Playing

Need a break from exams? Here's a movie to check out.

## Donnie Brasco

There's something about criminals that always catch my attention. Johnny Depp stars as an undercover FBI agent (Donnie Brasco) who infiltrates the Mafia. His initial connection is made with Lefty (Al Pacino), who brings him into the group. Once Donnie is in, though, it's nearly impossible to get out. He becomes completely involved in his undercover role, to the detriment of his real wife and family. Soon his own life (and the lives of those around him) is at stake. Donnie Brasco is well acted, and worth going to see. Just a warning, though: there are a few rather gruesome scenes. $\star \star \star \star$

Warren "The Movie Milkman" Hagey

## The $\mathbf{Y}_{0}$ Files

## Archaisms: Forsooth Is Out There

We last saw Duller and Scummy... well, we never actually have seen Duller and Scummy, have we? I mean, this is a text publication, after all! It's not like we have the budget to bring you live-action installments every two or three weeks, you know!

Oops....was I ranting bitterly again? Excuse me.
We last read about Duller and Scummy six weeks ago, where they were confronting yet another shadowy contact, this one named Darren, outside Warren Hagey Hall. Darren told them that, for evidence of extraterrestrial activity at the University of Kitcherloo, they wanted to go to Lot X. (He was wrong. Duller wanted nothing more than to quaff a few at the Bomber with Brian, Darren's shadowy contact predecessor.)
"So where's Lot X?" queried Scummy.
"North of campus," responded Darren. "I'd tell you that it was behind the Optometry Building, but then they'd have to call this The Specs Files, now, wouldn't they?"
"And what will we find up there?" asked Duller.
"A parking lot," replied Darren. "Duh."
"And where do the extraterrestrials come in?" asked Scummy.
"Through the gate, just like everyone else," said Darren. "I must go. I can't be seen talking with you here."
"Why not?" asked Duller. "Do you fear for your life?"
"Worse," said Darren. "I fear for my career. Bye!"
Darren faded into the background like some demented Cheshire cat which insisted on leaving its eyelashes rather than its smile, which left Scummy and Duller to find their own way to Lot X. (Which they did, of course!)

Noticing the large object whizzing chaotically within the lot, Duller grabbed Scummy's arm. "Scummy, look!" shouted Duller unnecessarily.
"My God!" whispered Scummy. The large flying discs looked like nothing less than Frisbees ${ }^{\text {TM }}$ on steroids. Though the speed of the objects was high and their paths unpredictable, it was still just possible to make the cryptic slogan "Zen Tofu" out on each of them.

Suddenly their attention was distracted from the whizzing objects breaking physical laws as though they were brittle carrot sticks by the much more dramatic and awe-inspiring form of...Stu, this installment's shadowy contact!
(Well, you had to be there.)
"Come with me!" shouted Stu, his mane of ringlets whipping in the wind. (Whip, whip!)
"You gotta be kidding!" shouted Duller. "We've got strange, inexplicably labelled objects flying around the parking lot faster than Baywatch shows T\&A!"
"Yeah, but I got something better!"
"Better than Baywatch?" asked Duller.
"How would you like to meet your Creator?"
"You mean God?" asked Scummy.
"Better!" shouted Stu. "He doesn't have nearly as much white hair!"
Reluctant to leave the site of the unexplained tofu zenny things, Scummy and Duller nevertheless allowed themselves to be lead away by Stu, because they knew, they just knew, that this whole chaotic tale would be
(See?)
Knowing that he only had one column left to finish the story, Stu motioned at them impatiently. After the motion was completed, he yelled, "Second!" He then turned to Duller and asked, "Hey, what happened to you guys last week, anyway?"
"There must have been a high-level conspiracy in the upper echelons of mathNEWS management, trying to keep our quest for the truth from reaching those in most desperate need for it," replied Duller. "Either that, or the editor ran out of room."
"It's just over here!" Stu pointed at a door plastered with enough cartoons to pass as a creditable shrine to Gary Larson. On the door was a label which said, "Hi! My name is Mike."
"The door is named Mike?" asked Duller incredulously. "Next you'll be telling us it's from Canmore!"
"Well, actually, it is," cried Stu. "But that's irrelevant. What's important is that your creator sits behind these doors. Are you prepared to meet your maker?"
"Do we have the column space to be unprepared?"
"No, not really."
"Then go ahead!" asserted Scummy.
Stu proceeded to push open the door, as it was slightly ajar. (It then became slightly abottle, but nobody noticed.) They were met with a brilliant bright light, which looked suspiciously like a fade-in to Millennium.
"Good Lord!" whispered Scummy.
"Yes?" a sonorous voice rang out.
Seated inside was a somewhat chubby man whose unshaven mug resembled a bonsai'ed Chia $\mathrm{Pet}^{\mathrm{TM}}$ : (Fortunately, he'd stopped drinking out of that particular mug weeks before.) He wore a trim pair of new eyeglasses set far back into his eye sockets. (Like everyone else, though, Scummy and Duller failed to notice them.) His eyes were the colour of week-old café au lait. Though less than impressive, he still managed to display an air of somebody who had been there longer than, well, God.
"Who are you?" asked Duller.
"I'm you're creator," responded the man as if he always opened a conversation with those very words.
"And why are we here?" asked Scummy.
"Well, I thought it would be funny. Silly me."
"And I suppose you're omniscient," said Scummy sarcastically.
"I knew you'd say that," responded the man. He turned away from them slowly, like a constipated tortoise.
"Wait, I have some questions for you about the nature of the universe, the purpose of Cheez Whiz, and the ultimate fate of mankind!" shouted Duller.
"I'm sorry, but I don't want to be caught talking to figments of my imagination again. You'll have to leave now."
Stu turned to them apologetically. "Sorry. He hasn't been quite the same since he broke his spline."
"That's okay," said Duller. "We should be heading out anyway on our next quest to find something never before seen by the general public."
"What's that?" asked Stu.
"A better ending to one of Hammer's columns than this one," responded Duller.

## Everything One Needs to Know in Life Can Be Learned By Reading mathNEWS

Hello and welcome to the end of the term! You may wonder at this point why I am writing this article. Is it because I've become bored just working behind the scenes? Is it related to the fact that I participated in six psychological tests in my 1A term? Or, aha! Is it because in mathNEWS Issue 2 a submission advised thinking of articles for the next mathNEWS?
(Ok, so I'm a little late, but I was exercising the "Creative Procrastination" discussed in Issue 1. Inspiration did not strike.)

At any rate, it's interesting to note some of these helpful tips and useful tidbits contained in the mathNEWSes of the term. Here I provide to you some of the information I have gleaned, along with an issue number for easy reference:

- T.A.'s like jello. [3]
- Don't play bridge with Beavis and Butthead (or any card game, because they seem to keep extra queens and tens lying around). [1]
- On some issues, Editors have the power to overrule Vice Presidents. [2]
- While you may not be able to return to your youth, you can at least pose as a frosh during Frosh Week. [3]
- Girls won't throw themselves at me in my $4 B$ term either. [1] But there might be a worse thing than being unloved. [4]
- If there's an emergency MFCF situation, the Leafs might make the playoffs. [4]
- Armed robbery can be accomplished in four easy steps [3] (and with rising tuition...).
- There's two sides to both Referendums and Reading Weeks.
- Don't tell people like Duller and Scummy you'd rather die than do something because they take things literally. They'd give you dye and say "paint the town red".

So there you have it, information in mathNEWS you might be able to use in your everyday life! (Depending on what sort of life you have.) So mathNEWS is educational! Or at least it's more comprehensible than some of my lectures. Which reminds me, I should be studying. I leave you with this final obligatory comment: All hail Mercury, the goddess of love and exams!

Greg "hologrami" Taylor

## Yes, we are on the Web.

If you're ever wandering the Web, drop in on mathNEWS at http://www. undergrad.math. uwaterloo.ca/ "mathnews.

Send comments or opinions to mathnews@undergrad.math, the BLACK BOX, or our mailbox in the MathSoc office.

And yes, I like to use the same damn filler over and over again.

## Mug Shot of the Week



Have you seen this cheerful character? He poses as a mathNEWS editor and can been seen wandering the halls of the Math building carrying a black coffee mug with the word "Hi" on it. He drinks a lot of beer, dances to disco on occasion and continously complains about a lack of cargo vans. If you have seen him, comment him on his hair and his nose and ask him to seek professional help.


## Read With the Leafs

## Mother Goose Stories with Tie Domi and Nick Kypreos

[Editor's note: The following story contains language which might be offensive to some. So... whatever. - CalcBoyEd.]

Domi: "Little... Miss... Muffet"... heh heh, nice friggin' name... Little... Miss... Muffet... sat... on her... tuffet... what the hell's a tuffet?
Kypreos: It's a tough girl, stupid.
Domi: Who're you callin' stupid, meathead? I've never heard of a chick being called a tuffet!

Kypreos: Yeah, dummy, a "toughette." A tough guy is a "tough" and a tough girl is a "toughette." The opposite is a "wimpette." Sorta like you.
Domi: Me? Wimpette? Which one of us is injured?
Kypreos: Shut up.
Domi: I'll shut you up, moron, if you keep interruptin' me. Why the hell is Little Miss Butthead sitting on a girl?
Kypreos: I dunno.
Domi: What do ya suppose two chicks do when they're sitting on each other? Heh heh.
Kypreos: Huh huh. I know what I'd like 'em to do. Huh huh.

Domi: Hey, loser, don't say shit like that. It's supposed to be a kids' story. Okay, back to the story. Sat... on her. .. tuffet... Cool, it rhymes... Eating... her... curds... What the hell is that?... and... whoa, what friggin' word is this?... wuh-hey. What is curds and wuh-hey? Who the hell eats that shit?
Kypreos: Maybe the $7-11$ was closed.
Domi: Look, if ya don't got anythin' smart to say then shut your yap.

Kypreos: Who's gonna make me?
Domi: Me.
Kypreos: You? A puny little runt like you is gonna shut me up?

Domi: I got two reasons why I'm gonna shut you up. My left is amazing and my right is even better. Okay, back to Little Miss Butthead. Along... came... a. .. spider... and... sat... down... beside... her. . . and said, "What's in the bowl, bitch?". . . Heh heh, just kidding... sat... down... beside her... and... frig-huh-tenned... Miss... Butthead... away. Thuh end.
Kypreos: It's frightened, knucklehead.
Domi: What's frightened?
Kypreos: It's not "frig-huh-tenned." You say it "frightened." Domi: Like you would know.
Kypreos: Yeah, I do.
Domi: Look, it ain't easy readin' this crap. So stop makin' fun on me or I'll knock your block off.

Kypreos: Ooooh, you're starting to frig-huh-ten me. Huh huh.

Domi: Shut up, asshole. Okay, next story. "Peter. . Piper." Peter. . . Piper... picked... a. . . puck... no, wait, picked... a... puck... oops...

Kypreos: It's "peck," buggerneuts. Not a "puck." A peck is how much of something you've got. A puck is something that's hit you in the head too many times.

Domi: Shut up, shit for brains. Okay... picked... a... PECK... of... pick-led... no, hold on,... pickled. . . poppers... Jesus, this is hard... pick-led... shit!... pickled... peepers... this story is really pissing me off!

Kypreos: Maybe you can't say words that start with "P."
Domi: Yeah, I can! Punch! Pound! Pummel! Pulverize!
Kypreos: Pathetic. Pisshead. Huh huh.
Domi: You think this is funny? All those little twerps out there ain't gonna be able to read because you keep makin' me look bad!

Kypreos: Just because you can't read don't mean they won't. Domi: Go fuck yourself.
Kypreos: Maybe you shoulda read with the Leafs when you were a kid.

Domi: As soon as we're done here, I'm gonna flatten you!
Kypreos: Hey look, we're almost outta tape.
Domi: Well, we better roll it back and do this again.
Kypreos: I don't think you'll get any better at readin' if we do it again.

Domi: Wiseguy, huh?
Kypreos: Look, we're almost at the end! Here it comes! Right... n...

Graham "Goose That Mother!" Rogers


## TensorMania '97 Results

In the no time limit match, Analysis Girl and the Princess of PDEs fought to a draw when both of them realized the same page was missing from their Complex Analysis texts, and hence the match could not continue.

The Killer Eigenvalues held on to their tag-team belts against the Small Harmonic Oscillators with the use of BolzanoWeierstrass leg lock.

The Möbius Stripper was the first out of the steel cage against Klein Bottle Kevin. However, the Stripper's manager, Wild Bill Integral, was caught throwing fluid mechanics textbooks and course notes into the ring, and so the result was nullified. A re-match is scheduled as we speak.

The Derivative of Death won by disqualification when Dr. Manifold hit him with a chair.

AMWF Pay-per-views coming up: Bifurcation Blast I and Convergence Fest.

## So Long, and Thanks For All The Ulcers

Hmmm . . . it seems that there is a tradition for those who've worked on mathNEWS a lot during their undergrad careers to write something for mathNEWS when they graduate. I've been mulling it over for a while, and I think what I'll do is just list a few things that you may or may not recognize. I hope these memories mean as much to you as they do to me.

Village II. North E. Living beside Ian Goldberg. Late night conversations. Pog, Zac, Brad, Mike, Dieter, Sludge, Bass. Village Frosh Week. Math Frosh Week. Hammer \& Screw Fall '91. Sodding POETS. Choking chickens .... Prabhakar Ragde for CS 134. Super. MathSoc. MUDs, and how I kicked the habit. Killington. Three-hour MathSoc meetings. CS 241, and the assignments I didn't do. Village I. North 3. Timmy, Scott, Joe, Salid, Sharma - you know who you are. Anth 311. CS 242, and the assignments I didn't do. East 6. The Kasbah. Green's Theorem and Fourier Series. Jiu Jitsu. Midterms. No more Jiu Jitsu. Cheap wings. CS 242 again, and the assignments I did. Idiots, and how they related to Randy.

Wu and the other Aussies. Painful CS 351. mathNEWS and fucking dogs. Magic: The Blathering. MEF. Poesy. The Orientation that never was. Tensors, and Differential Geometry. First attempt at CS 354. Broken heart not once, but twice. Best friend from high school whose wedding I couldn't attend. May, Jon, Tara, Paulo, Manal, and Anu. Co-op still sucking large. AT\&T and the Dilbert People. Viva Puzzle-Boy! mathNEWS co-editorship. Sarah. 5 Math courses. No sleep. Club 21. Paul, Jerry, Dave, Kevin, Calvin, Kurtis, and Matt. Ultimate! No sleep. Marijuana, a psycho across the hall from my room, and a cat named Fuck. Heart broken a third time. Locked into the Halton Conservation area after closing, the pizza arriving before the police. Canada Day. Casino Night. Orientation '95. Mabel. Corel and the 90 -hour work-weeks. JC, Pete, Bill, Derek, Fred, Tyler, Brian, Leila, Jeff, Linda, Ryan, and Bess. Georgie's Pizza. Orgleblorfic! DG revisited. CS 354, Part Deux. SR, GR, Quantum, and Larry Smith. Alex, Dima, Matt, Alyssa, and Mark. Young exec.
Corel again. The ulcer and three litres of my blood. Massive headaches. Ventura. Brent, Philbert, Todd, Adam, Charlie, Meghana, Jason, Kell, and Deborah. High school reunion of sorts. Pulled ligaments. Orientation '96. Stupid politics. Stupider Math jokes. Sunshine Express. Haoyong, Reza, and Nelson Mandela. CS 488: Burning in Hell and Loving It, Fall '96. The Roomarang. Candice, Melanie, Melanie, Glenn, Brian, Teresa, Sean, Rod, Dave, Ashraf, Vitaliy, MEF, Ion, Alfreda, Mei, and Florence. The Mann. MathSoc Referendum. Quantum II and the as-yet-uncompleted project. Canada and the U.S. Jon's wedding, and how I was the third Best Man. Splines. Andre, Debra, J.B., Yee Whye, and Dan. King Arthur. Green dog the moon disc. Orgleblorfic! "The Bills will never win the Stanley Cup." Zhì shì wŏ bàba! The class chorus is very fine, Gŭbō. You suck, Dave! We, the people of South Africa, feel like chicken tonight! I hope I didn't miss anyone. If I did, I didn't mean to.

Thanks for the memories, $\mathrm{U}(\mathrm{W})$ !
Yours Truly, Stuart Pollock

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# Post-Teen Angst: By The Power <br> of GraySkull 

Exams<br>- or -<br>"I'd rather kiss a Wookie... "

Easy, Average Reader, easy... Before you lynch me for invoking the "e" word, let me explain. Exams are not fun. Unless, of course, you're one of those "student" thingies, who actually understands all the work you've covered, and merely need to brush up on a couple of points from earlier in the term before trudging off to the sweat-house that is the PAC and brazenly showing off your vast knowledge in the company of eight hundred of your closest friends.

Weeeell, for the vast majority, exams are stressful. Exam-time is stressful (if for no other reason than it means the Bomber will be closing soon). Plus, we get to watch mild-mannered, meek little Professor X transform into one of the muscle-bound heavies from He-Man (and the Masters of the Universe), Profess-Or, Evil Master of Examination.

Furthermore, after his transformation sequence, Profess-Or also conjures up his two favourite henchmen, Tut-Or (Evil Master of Invisibility) and Proct-Or, (Evil Master of Silence). Even as we sit here blithely consuming another wonderful edition of mathNEWS, they are together in their lair, the labyrinthine Fifth Floor, plotting the demise of every poor schmuck in their class.
"Heeheeheeheeheeheehehaha! Everything is going as I planned. There will be no escape for Average Reader this time! Tut-Or, have you managed to change your office hours on the course web page without anyone finding out?"
"Yes, Profess-Or. It is as you requested," intones Tut-Or.
"Excellent! And Proct-Or, have you told Graphics Services to print up exactly 149 copies of The Exam?"

Proct-Or grins a sadistic grin, and nods.
"Perfect. Some, perhaps all of those students may complete their exams, but by the time Average Reader arrives, our poor $150^{\text {th }}$ student will have to wait... The fifteen minutes chewed up in printing another copy of our evil manuscript will be more than enough to seal. . . his... DOOM! Moohoohahahahahaha!"
(Meanwhile, in the safety of the Comfy Lounge...)
"Gee," says Average Reader, "it's only a week before Professor X's exam. I'd better hit the ol' books, eh study chums?"

Average Reader's associates reply via several apathetic nods, then return to their bridge game. Suddenly, Average Reader hears an ethereal voice in his head.
"Average Reader! Professor X is not who he appears to be! He is none other than your evil nemesis, Profess-Or, and he means to destroy you!"
"Thank-you, Calculus Cowboy!" cries Average Reader. He furtively glances around - all in the Comfy Lounge are consumed by their card-playing. Deftly, he hoists aloft his magic textbook, and shouts, "By the power of the Bell-Curve?"

Instantly... Okay, fine... After a thirty-second transformation sequence in which no one else does anything, Average Reader has become none other than Cram-Man! Concepts that take normal mortals days to master suddenly become easy for him to fudge in mere minutes! His pencil has become a fountain of partial credit and meaningless diagrams! And his texts have been reduced in size tenfold, to contain only the material that will appear on the exam!

Feeling the power flowing through him, Cram-Man quickly heads to the Bomber, because he knows that he'll do fine on the exam the next week.

The following week, in the PAC, Cram-Man struts in to his section, and takes a seat. Profess-Or and Proct-Or stand at the front. (Tut-Or hasn't been seen in days.)
"So, Average Reader has sent Cram-Man to write in his place. Perfect! I'll be able to fail Cram-Man, and then get Average Reader expelled for exam fraud! Proct-Or, go let Cram-Man know that there is no paper for him to write... yet... "

The news, pantomimed by Proct-Or, does not faze Cram-Man. He merely props his feet up on the table and waits. When he finally does receive his paper, Cram-Man ploughs through it, and hands it in early.
"What? Impossible!" cries Profess-Or. "I'm marking this right now!" Cram-Man merely smiles, and strikes a pose while he waits for his mark.
"So, Profess-Or. How'd I do?"
" $52 \%$ ? Noooooooooo!! I'll get you next time, Cram-Man! Neeeeeext tiiiiime!"

Cram-Man just continues his pose-down... until all his classmates who actually studied and still failed found out how much time Cram-Man spent studying and beat the living crap out of him.

## Ian "Lack of Facial Hair Complex" Milligan

## Preclue \#4

This is our last preclue of the term. There will be twelve more next term. If you want all the information about the Game, coming this summer, point your browser to our website at undergrad.math.uwaterloo.ca/~djrigby/.

For this puzzle, we present three stacks of letters. In each stack, we've carved out holes wherever three certain letters appear. The three letters are the same for all the words within one stack, but change from stack to stack. Each of the three letters has been excised at least once from each word. Fill in the holes to form common words, and place the three missing letters on the top of the stack (which do not necessarily form a word by themselves). Read across the tops of the stacks, and bring with you reference material about the subject you see when you play the Game.

The Holes


What's Left

## [10] $]_{8}$ Things To Do Between Now and Exams

Since we got shortchanged on our Reading Week, we get a little (and I stress that it's exceedingly wee) break between the End of Classes (today, whee!) and the first exams. Being curious and excited young university students who haven't completely had the will to live beaten out of them, here are some ideas to pass the time.
10. Bungee jump off the Math Building wearing nothing but a pink tie. You may as well... if the experience doesn't kill you, Stats will.
7. See how long you can stay in Williams before you get kicked out, then head over to the Go! Internet cafe and so on and so forth and etc. ad infinitum.
6. Visit your profs at home and bore them with anecdotes about your personal life while teaching a lecture in Advanced Celtic Luggage-Throwing (or something equally exciting). Then jump out a window.
5. Invent something of worth to mankind. Then jump out a window.
4. Go on a road trip to someplace southern - like Kitchener! There are many fabulous museums (The Canadian Clay and Glass Museum, anyone?) and art galleries (Club Renaissance, for example) to visit as well as a happening nightlife (mostly high school kids skateboarding in front of City Hall).
3. Attend your electives and laugh at all those poor slobs who have five classes they still have to go through. Then, of course, jump out a window.
2. If you can browbeat, bushwack or brouhaha your way into a computer lab you might finally make a dent in the 12,000 forwards that everyone has sent in lieu of real e-mail.

1. Climb around in the Davis Centre, aka "The World's Largest Jungle Gym". While you're there you may want to practise your singing as well, for the inevitable live-action Hunchback of Notre Dame musical.

Or, I suppose you could just watch TV.
Greg "Damm Dashing" Morey

## Da Squiz

## We don't need no steenking subtitles!

Bù! How are you all doing? Wow. It's nearing the end of the term, and those of us who write the squiz and actually have to write exams are all gonna fry!

Whatever. This issue, we have our traditional end of term squiz. For those who don't understand its significance, allow me to elucidate. This is a squiz in which we make the questions relatively easy so that our good friends in Arts can actually answer them. (*)

Here are the answers for last issue's squiz: Ireland: 1) Sinn Fein, Jerry Adams; 2) December 21, 1948; 3) Londonderry, Antrim, Lyrone, Armagh, and Down; 4) 1845-1848; 5) He was a missionary converting 'em all to Christianity; Laundry: 1) Green, yellow, and red; meaning "always okay", "be careful", and "get a new shirt time"; 2) Sodium Hypochlorite; 3) At home, Hot/Cold; at a laundromat, the 'Whites' setting ... ; 4) You can't! Just bleed all over the rest of the shirt ...;5) Clean the lint trap - especially at a laundromat ...; Movie Quotes: 1) "Fools Rush In"; 2) "Private Parts"; 3) "Fierce creatures"; 4) "The Silence of the Lambs".

Here is a (small) list of people who have submitted to the squiz: Adam "Gavin" Brock (0) (your answers were very amusing, though); Chris Wooff (3); and Dorothy and Jerry (3). The winner, as determined pseudo-randomly (tossing a coin) is ... Dorothy and Jerry! You can pick up your squizprize in the MathSoc office. And now, on with Da Squiz!

## Guess who!

1. Who's the black private dick that's a sex machine with all the chicks?
2. Who's the cat who won't cop out when there's danger all about?
3. Who is the man that will lend a hand to his brother, man?
4. Who is the complicated man that no one understands but his woman?

## Spelling: Spell the following words

 (Plus a bonus point for alphabetizing the list!)1. a
2. be
3. cat
4. do
5. eat

Jeopardy!
We give you the answer, you supply the question

1. Orgleblorfic!
2. To get to the other side.
3. $(5 x-14)^{x^{2}-y^{2}} R_{\alpha \beta \gamma}^{\delta} g^{\gamma \zeta}$
4. "arrrrrgc [], arrrrrgo []! COPY A:*.*"
5. Stu's chances of getting into grad school.

Ian "Neil Young Complex" Milligan
Stuart "Jean-Guy! is graduating" Pollock
Brian "I'll eventually graduate" Fox
$\left(^{*}\right)$ No offense. Really.

## gridCOMMENTS

Greetings, Gridders!
This marks my official finale as Gridmonster of mathNEWS. (Assuming that I don't fail a course and be forced to come back in September.) However, that doesn't mean I won't send in more of my creations after I've graduated.
Enough talk of the future. Let's discuss the past. Last issue had a diabolical mutation of our usual puzzle. Both Cryptic and Unconventional clues got mushed together into one huge mess, which I asked you to sort out. Two solvers made the attempt: Dorothy \& Jerry, and Chris Wooff. Dorothy \& Jerry had errors in their grid and Chris Wooff did not, so he is our winner. Since the $\mathrm{C}+\mathrm{D}$ is closed, we'll have to get you some other prize. I'm sure it'll be nice.

Moving on to the present, my final gift to you is a real live variety cryptic crossword. This type of crossword is called

Theme and Variations. I have taken three mystery words, and taken variations of them: either linguistic variations (synonyms, antonyms, other halves of common phrases, ...) or logological variations (anagrams, homonyms, half the words, ...). I've put all nine words into a $12 \times 12$ grid and clued all the other words. Your job is to figure out what the theme words are, and what the variations are. There are six capitalized words in the grid, none of which are the mystery words or their variations. The solution is elsewhere in the issue, so don't send in your solutions.
That about covers it. I've really enjoyed my time as a student here, and as your tormentor. Hopefully you'll see more of me in future issues.
Goodbye, Gridders.
Gridby


| 1 | 2 | 3 | 4 | 5 |  | 6 | 7 | 8 |  | 9 | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11 |  |  |  |  | 12 | 13 |  |  | 14 |  |  |
|  |  |  |  | 15 |  |  |  | 16 |  |  |  |
| 17 |  |  |  |  |  |  | 18 |  |  |  |  |
| 19 |  |  | 20 | 21 |  |  | 22 |  |  |  | 23 |
| 24 |  |  |  | 25 |  | 26 |  | 27 | 28 |  |  |
|  |  | 29 |  |  |  |  | 30 | 31 |  |  |  |
| 32 |  |  |  |  |  | 33 | 34 |  |  | 35 |  |
| 36 | 37 |  | 38 |  | 39 |  |  |  |  |  |  |
| 40 |  |  |  |  |  |  |  |  |  |  |  |
| 41 |  |  |  |  |  | 42 |  |  |  |  |  |
| 43 |  |  |  |  |  |  | 44 |  |  |  |  |

## Grid Clues for Mystery Words (Variety Cryptic)

## Across

1. Broken crates fill part over. (6)
2. More than one popular obsession disappears without work. (4)
3. Mistake keeps students back. (6)
4. A hero runs around airport. (1'4)
5. Sunken spot detracts a little from bit of garlic. (4)
6. Take back agent and overpaying $10 \%$. (4)
7. Rabbi separates two dishes, essentially, from cork? (5)
8. Throw boot after red machine. (5)
9. Variation on Word B (7)
10. Word A (5)
11. Iron product without a spring? (4)
12. Loyal pooch is full of it! (4)
13. Length, width become one. (4)
14. In France, his directions... (3)
15. ...seem hollow, might be sleaziness. (5)
16. Variation on Word C (6)
17. Cover (stick with) that man. (6)
18. Museum pieces feature in play. (4)
19. Buck nearly thrown into channel. (7)
20. Word C (11)
21. Variation on Word A (6)
22. Flip switch before appearance of principal of surprise parties. (6)
23. Maybe baseball team reads aloud whichever personal they want? (6)
24. Turns animal and makes judgment one way or the other. (5)

## Down

2. Strange part of cutlass within strange red hilt. (8)
3. Japanese car goes back and forth. (5)
4. Copies recordings without header. (4)
5. Behold: leaves, loafer, and similar. (4)
6. Variation on Word B
7. Mothers cleaned up drink bottle? (7)
8. Name of Danish islands strikes fear around operator. (5)
9. Witness tied up rope end. (7)
10. Variation on Word C (4)
11. Quiet! I've removed the end of knife. (4)
12. Most stout left aboard ship sits in front of the head. (9)
13. Around fans, country singer bounces around bare. (4)
14. Harbinger appears in more than one Middle East nation? (4)
15. A skin imperfection Mother covers with make-up. (7)
16. Variation on Word A (8)
17. Process sources of sugar. (7)
18. Virgin I court in movie. (7)
19. Flightless bird or petrified rodent? (6)
20. Chinese boat is almost identical vessel. (6)
21. Word B (6)
22. Aircraft won't start on road, essentially. (5)
23. Today in Madrid, the French look for expert on cards. (5)
24. Round enclosure is locked. (4)
25. Rewrite last half of poem about apple (or pear?). (4)
