## Prez Sez

## Election Results

$f^{\prime} \mathrm{d}$ like to thank all those who participated and voted in the Spring 1999 Executive elections and the Senate By-Election. The results are as follows:
President
Jennifer Cote 91
Bruce Lee-Shanok 148
Spoiled
Vice-President, Academic
Chris Brawn
Yung-Shun Vincent Tseng 184
Yug-Shun Vincent Tseng 46
Spoiled 26
Vice-President, Activities and Services
Diana Price
67
Natalie Thompson 169
Spoiled 20

Senate
Chris Buchanan
Andrew Drummond
Daniel Mader
Spoiled

I'd like to congratulate all of the winners in the elections, and I wish them the best of luck.

## Executive Nominations for Winter/Fall 1999

Just a reminder that today is the last day of nominations for Winter/Fall 1999 Executive positions.

## Final Note

I'd like to end this article with a message to all of our volunteers: MathSoc's had one hell of an incredible year, and it's due to your hard work and diligence. I believe that this organisation has come a long way over the past twelve months, and is only going to continue to improve over the next few years. MathSoc is a Society of which Math students can truly be proud. Thank you for all your time and effort; without it, all of our accomplishments would not have been possible.
I'd like to wish everybody the best of luck on their exams, and happy holidays.

Chris Buchanan


## Mefuselah, Baby

What's a Mefuselah? Beats me. I just made the word up because I thought it sounded neat. No, I don't have a point. Let's move on.
I have to write this article on what's gone on with the Math Endowment Fund this term, and I really don't feel like doing it, so I'm going to make this as painless as possible:

## I Shelled Out Money

You know how at the beginning of the term there are signs up around the place telling people that they can get the $\$ 31.42$ endowment fund contribution on their fee statement refunded? Well, those posters were put up by me. Every stinkin' one of them. AAAAAAAAAAAAAAAAND I sat in my (big and beautiful) MEF office over the first few weeks of school to take down the names of people wanting MEF refunds. For 20 stinkin' hours. And just where did this get me?!!? Hmmmm?!!
Stinkin' nowhere, that's where. But hey, I now get to report that $81 \%$ of Mathies participated in MEF this term, giving us the highest participation rate of the student-run endowment funds across campus for the, I dunno, at least third term running. Woohoo!

## I Shelled Out Mo' Money

So based on the income from previous terms' donations (we currently have about $\$ 700,000$ in student-owned and controlled funds) a council of students, alumni, and professors considered a number of funding requests that were submitted to the Fund and chose the ones from among them that they considered to have benefit for undergrad Math students. (By the

## mastHEAD

## Now that's entertainment!

Here we are at the end of another term of mathNEWS, another year of mathNEWS, and the $25^{\text {th }}$ anniversary of mathNEWS. What do we have planned for next year? If you said "News, opinions, and humour from and for mathematicians everywhere, and trained seals," you're half right.
If you're wondering about the funky cover design, it's because we decided to show you what it would have looked like if this was 1973. Or, what it might look like now if someone hadn't had the brilliant idea of redesigning the cover somewhere along the way.
As we wrap up another term, here are the mathNEWS faithful who helped out tonight, along with their term number, program, and their answer to the question What is mathNEWS's letter policy? Michael Thorsley (1A Masters AM, Don't print it if there's not enough swearing), Greg Taylor ( $3 \mathrm{~A}^{1} / 2$ CS?, Small m , capital N , type them if printed and print them if typed), John Swan (3NEcon, No cyrillic, s.v.p!), and Gigi Garbett (2N+ Psych, Quebec's having an election?).
We'd like to extend special thanks to Marion, Karen, Mike, and all of our other friends at Graphic Services. We've done some wild and crazy stuff to them this term, and they've gone out of their way to help us produce this publication. And, we have to acknowledge our perpetual debt to those unsung heroes who keep the gears of society turning: pizza delivery people. Where would we be without them?

Richard Bilson (3B CS/EEE, Take no prisoners!) Matt Walsh (4A C\&O/PMATH, No shirt, no shoes, no service) Chadwick Severn (3C CS/JOURN, Print only solicited letters)
way, did I mention that I'm going to Peru this Christmas? No, no. No connection. My Swiss bank account, on the other hand....)
Four students and one professor had their proposals (which follow) approved:

- Actuarial Science Club: Funding for transportation to ASNA convention
- UW Business/Investment Club: Funding for the Business Club library
- Pure Math, Applied Math, C\&O Club: Funding for three day series of talks for undergraduate math students
- Midnight Sun Solar Race Car Project: Funding for the purchase of solar cells
- Department of Statistics and Actuarial Science: Funding for new machines in the Statistical Computing Laboratory

If you'd like to have a proposal considered for MEF for the future, contact whoever the current MEF Director is for more information on proposal criteria.

## I Shamelessly Tried to Get More Money

You know how some employers have this donation doubling program for their employees, where an employee's donation to a charitable organization will be matched by the corporation? Well, I'm trying to see if student-run endowment funds can get Co-op employers to match the contributions that UW Co-ops make to their endowment funds to essentially increase our income by $33 \%$ through funding from the private sector.
This idea has run through the top brass at UW, and it's been okayed for a pilot run-through next term with the top ten Coop employers. Stay tuned, Co-ops, for more developments. We'll be getting in touch with those of you that are working for the pilot corporations this winter if things run as planned.

Okay, okay, okay. So, like, I sit in my (big and beautiful) office, minding my own business, when these hooligan students come in and ask to use my stapler. Just like that. Can I use your stapler, please, they say.

Shameless! Absolutely shameless!! No "how are you doing today, Sarah." No "you look ravishingly beautiful, as always." Not even a "can I please eat that piece of chalk?" They just walk in, politely borrow my stapler, and then leave.

Freakin' students, man. I bitterly resent staplers now.
No, I don't have a point. Let's move on.
So I won't have to write any more articles like this after today. Yeah, yeah, try to contain your joy, you sarcastic bastard. Why I oughta....
Anyway. The MEF Director for Winter 1999 will be Jeremy Scheffel, a fourth year Bus. Admin. student who previously held the Directorship in Spring 1998.
(The Spring 1999 Directorship is still open for any of you interested in applying, by the way. Please e-mail mefcom@undergrad.math. uwaterloo. ca for more information.)

Tha'ss it. If you have any questions, you can bug Jeremy. I'm outta here. Bwahahahahahaha.

## Math Alumni Network?

Need feedback NOW!

Do you want to...

- Get to know former Math graduates and feel more connected to Math alumni?
- Share and learn from their work and life experiences?
- Develop informal industry contacts and get ready for the real world?

If "YES!" then please read on...
The Women in Mathematics Committee is considering the idea of developing an Alumni Network to facilitate the devel. opment of informal networking and mentoring relationships among past and present Math students. This was originally identified as an issue for female students and alumni, but everyone would be encouraged to participate.
First - we need to know if you think this would be beneficial to support your career development, and how it could best work for you. If so, please let us know and forward any ideas or sug. gestions you may have. We look forward to hearing from you!

Here are the things you can do to help:

1. When you meet up with a Math graduate (perhaps on your work term), please ask them to visit http:/1 www. adm. uwaterloo.ca/infodaa/ to ensure that their addresses and employment information are correct.
2. Check out the Math Alumni and Friends web page http:/ /www.math.uwaterloo.ca/Faculty/alumni.html and update their profiles on that web page also.
3. Please ask them to provide us with some feedback on the idea of setting up an alumni network. You can find contact information the math alumni web page.
4. Tell us what you think as an undergraduate student. Email me at ppchen@uwaterloo.ca.

Have a great work term and good luck on your finals!
Poesy Chen
Women in Math Committee

## ActSci News

So I guess this is the last article I have to write and after a couple I have to admit I never once started any article before the middle of Monday on production night. There isn't much left except for a couple of reminders for next term.
First, tickets for the ASNA Convention from January $8^{\text {th }}$ to $10^{\text {th }}$ are still on sale in the ActSci Club for $\$ 60$ on Friday and Monday (and we should be open for some time both days, yay). After that, tickets can still be bought until December $23^{\text {rd }}$ by contacting me through e-mail pairwin@math. uwaterloo. ca for $\$ 65$. It should be an exciting event with a lot of interest to actuarial students in all years.

Actex manuals are no longer available to be borrowed this term but for those students who are writing SOA exams in February or May, join next term and come by to borrow any manuals you need. The ActSci Club will also be hosting several events next term; check with next year's executive for more details.

Paul Irwin

## The Applied Mathematics Professor Letter Spectacular!

*ear Editors,
I refer to the letter from Chris Buchanan, which appeared in the mathNEWS of November 20, 1998. That such a letter was allowed to appear in that form in such a Faculty/University publication is unacceptable. The writer should of course be free to express his opinions, but not in the form of an ignorant, foul-mouthed, diatribe appearing in a publication which, it is stated, "is responsible to the undergraduate students of the University of Waterloo." The appearance of that letter is a serious embarrassment to our Faculty and University. It is also stated that "Content is the responsibility of the mathNEWS editors," and I believe that the editors owe the Faculty/ University community an apology for not having at least suitable edited the letter.
I am arguing neither for nor against the views expressed in Buchanan's letter. However, I see that he is in the running for the Math Senate seat: does anybody really want to be represented on Senate by such a potentially embarrassing candidate?

Frank O. Goodman Applied Mathematics University of Waterloo

Editors' reply: If someone of note, like the Prime Minister, was to write an "ignorant, foul-mouthed diatribe" and The Toronto Star got its hands on it, they would publish it in a heartbeat, swear words and all. Similarly, if mathNEWS receives an "ignorant, foul-mouthed diatribe" from the president of MathSoc and a candidate for the Math Senate, we will print it, swear words and all.
Also, if we edited out the swear words and references to crack, how on earth would you and other readers be aware that Mr. Buchanan is a "potentially embarrassing candidate"?

## Dear Editors,

The raving attack by Mr. Chris Buchanan on those math professors who believe - as I do - that the establishment of guidelines on class averages is a mistake the Math Faculty should avoid making, would be laughable if it weren't an embarrassment for our entire faculty. We praise ourselves to the world as a place where students can hone their intellect to become critical and logical thinkers, and all Mr. Buchanan (who has been a math student for well over four years) can do is to make recourse to invective and foul language...
In his eagerness to be insulting, of course, Mr. Buchanan makes a series of false statements concerning class averages and number of students on probation. But don't take my word for it; just go and get the relevant information from the Dean's Office. For example, the class average in MATH 135 has been no less than $66 \%$ for the past five years, and the same is true for MATH 137 with the exception of Fall 1995 when it was $62 \%$. Where is the need for guidelines? The cases where math instructors submitted marks with class averages less than $60 \%$ can be counted on the fingers of one hand, and have been dealt with on a case-by-case basis. So where is the need for guidelines?
Most disturbing of all, however, is the last paragraph of Mr. Buchanan's piece. In his stilted and ungrammatical English, he appears to imply that the traditional concept of post-secondary education is obsolete, and that we should all happily embrace the new, improved Credo: Education as a Means to an End (EME). If this slogan means anything, it is EME = training, which the dictionary defines as "the process of teaching or learning a skill, especially by practice." No critical thinking is required. Now it strikes me as really stupid to spend a lot of time and money at a university to simply get what a good community college can give you much more quickly and cheaply! So why has Mr. Buchanan been hanging on for so long to the UW Math Faculty?
The answer is, of course, that a BMath from UW still carries a lot
of prestige. Let's not forget, however, how that reputation was earned. It was mainly the result of the fact that our graduates have systematically outperformed the competition for the past forty years. Those graduates of the past were not just trained-they were educated! They did not demand grades that they did not deserve, and they worked very hard to get them. (Remember that they were carrying a course load of six courses per term!) They are the reason why we have been ranked number one in reputation for so long.

I believe all math students should think carefully about this issue, which, as you know, Faculty Council will discuss at its January meeting. Invectives aside, I think Mr. Buchanan's piece in mathNEWS has at least opened up an important aspect of the debate, namely the type of education you want from the Math Faculty. There is no room for doubt as to where Mr. Buchanan stands. If most of you agree with him, then let you represent you at the debate, by all means. But if you don't, then I think it is in your best interest to tell him as politely as you can to shut up.

## G. Tenti <br> Applied Mathematics

## Dear Editors,

Regarding Chris Buchanan's letter on "Class Averages" in the previous issue of mathNEWS, it would be wise for Mr. Buchanan to actually take the advice he gives in his final two lines, namely that if he should "stop throwing tantrums" people may begin to listen. Unfortunately for Mr. Buchanan, one finds, after weeding through a collection of "thought-bytes" padded with expletives, that there is very little substance to his arguments.

Given that the matter of "guidelines for core course averages" will be - thankfully - discussed in January's Math Faculty Council meeting, I would be interested to know if Mr. Buchanan's views are representative of the general student body. I would like to believe that this is NOT the case - that students come to Waterloo to obtain degrees that have historically been regarded, by industry and academia alike, as having value. (Why is Mr. Buchanan here?) Having now revealed my identity as one of those "unnamed" faculty members who opposes the idea of such guidelines, I leave this for future discussion and invite you, the students, to attend January's meeting unless, of course, you prefer to let Mr. Buchanan speak for you.

I would, however, like to pose a question to Mr. Buchanan. If he were ever to find himself in the unfortunate situation of requiring serious medical attention, say surgery, would he be comfortable in knowing that his surgeon obtained an "Honours" degree from "Happyland Medical School," where class averages were guaranteed to be at least $65 \%$ and everyone received an Honours degree? Perhaps he would simply be content to let the anasthesia settle any discomfort, but what if he finds out that the anasthesiologist has a degree from "Happierland Med School," where the same standards are adopted because, after all, its students are just as good as Happyland's?

Finally, I cannot resist pointing out an irony here. Mr. Buchanan and I sat on the same Nominating Committee for the Dean of Mathematics whose members "unanimously and enthusiastically" (letter to UW Gazette, mathNEWS, etc., dated Dec. 12, 1997 and signed by seven members of the Committee, including myself and Mr. Buchanan) recommended an external candidate whose principles lie orthogonal to any idea of "guidelines" or "belling" of grades.

As Mr. Buchanan may recall, this individual lamented the decline in intellectual content of university courses and sincerely believed "more Mathematics students should be learning more Mathematics". The rest of history speaks for itself.
E.R. Vrscay

Applied Mathematics

## SMECAP IV

I just wanted to take this opportunity to give a big thanks to those of you who stopped me in the halls to chat about the stuff I wrote about last week. There's a lot of stuff going on in the world right now, and we generally have to choose what we want to care about. I'm glad a bunch of you chose to care about the Nicaraguan situation with me.
Anyway, I've said all that I intend to about Hurricane Mitch, so for this final issue of mathNEWS we'll return to the final installment of my flighty e-mail correspondence from the summer term.
Good luck on finals and happy holidays!
So it's been a while since I've written to you all. Why? Partly because of e-mail problems. And partly because I've been busy fighting against the most evil evil beings that can ever be imagined.

Yep. You guessed it. I'm quite obviously talking about the roaches who live in the latrine.

Now let me make something very clear: I'm not afraid of roaches. I do NOT have a phobia! I just don't like them, that's all. (Don't listen to anything my family says about this. They spread filthy lies.)
I get along with all other buggy-type things just fine, ferchrissake. Long as flies don't grow bigger than marbles and keep bashing their heads against windowpanes (good entertainment value), I leave 'em alone. Moths fry themselves on my porch light, and I let them. I've really become pretty nice towards insects ever since my bug-mangling days. But roaches, all roaches, must die.
My history with roaches goes back a long way. It all started back in my starry-eyed childhood, when my first meeting with a roach forever put a festering blight on the dewy youthful bloom that was I. Yeah. Picture it: me, a cute, psychotically talented 5 year old singing sweetly (and ridiculously well) while skipping adorably during one of the halcyon (whatever that means) days of my youth, when an encounter with evil evil evil roachdom changed my life forever. It just breaks my heart to think of what I could have been had I not seen that roach that day. Quite honestly, it's because of that damn bug that I haven't made Miss Universe yet.

Here's what happened: I was sitting on the potty in my gifted way, minding my own business (go number 2) when I felt this evil presence in the room. I looked around, and cold fear gripped my courageous little heart when I finally saw it. My evil shining black nemesis was watching me crap! I just sat there, a captive audience, so to speak, thinking "I hate you, I hate you, I hate you." It looked back at me, twitching its antennae viciously. My carefree days were over.
Unfortunately, my relations with cockroaches have never improved since that tense, rather constipated moment of my childhood. My last couple of months in Nicaragua have proven that. I tried everything to get rid of the roaches in my latrine, but those ugly bastards were tough. I screeched, cursed, and danced around holding a big rock. They didn't look impressed. I cried mercilessly, but they had hearts of stone. Even my best attempts at intimidating them through hysterical screams just made them giggle. I finally realized that there was just no way that I was going to get them to leave (without, you know, like, eww gross touching them or something), so since roaches don't
like light, I settled for chasing them around the place with mot flashlight beam and giggling as I imagined their silent roach screams of pain and fury.
Okay, okay, so maybe it's a bit pathetic that I have so much dislike (not fear! NOT fear!) for roaches. Maybe it's sad that I can get so traumatized by something that's half my size (okay, maybe a third my size). Maybe Alanis Morissette can actually sing. But I don't think so. My most recent encounters with roaches are part of a bigger picture, part of a grander plan where I lull them into a sense of false security and let them think they've reduced me into a whimpering, yibbering heap (whereas I'm obviously just toying with them) before blasting them off the face of this earth. S.C. Johnson stockholders rejoice: I hereby swear by all that is holy that I will spend the rest of my life stocking up on RAID and murdering every ugly twitching antennae roach-type thing that crosses my path. Revenge will be mine. Oh yes, it will be mine.

We will meet again, my Nicaraguan friends. There can be only one.

Sarah Kamal

## Everything I needed to know, I learned by playing Japanese dating-simulation video games

- Never give a woman a $1 / 8$-scale figurine of herself for her birthday.
- If all of your stats are high enough, and you answer her questions right, you can have a woman blushing in 12 months tops.
- If you don't study for tests, you will fail.
- Sometimes, despite what your mother may tell you, it is beneficial to sleep for three weeks at a time.
- Every woman in the world has her own theme music, audible from the moment she steps into your field of view, until the moment she leaves.
- Pink hair is good; green hair is evil.
- "Your karaoke sounded great" is not always the right answer.
- "They look delicious" when a woman asks you what you think of fish in an aquarium is never the right answer.
- There do exist women who like pro wrestling.
- There do exist women who sometimes do the asking-out.
- If she has a Gold Card, she is not likely to consider going to a pawn shop as an acceptable date.

Drew ("hanemusume wo sagashiteru") Hamilton

## profQUOTES

*ets massage this thing... because that's what we always do in mathematics: we massage things."

Best, C\&O 227
"...and unless arithmetic really turns you on, you don't need to do it"

Best, C\&O 227
"On exams I tend to make typos so you'd better check. If this inverse matrix is wrong, what does that make your life? A living hell."

Best, C\&O 227
[Prof] "In fact, this really is like the real world." [Student] "Don't make us beat you."

Cormack, CS 452
"...while I'm bragging about hacking my thermostat."
Cormack, CS 452
"I thought maybe while I had things to say I'd run the movie, that way you'd ignore me."

Fogel, ENGL 208B
"Now, we have entire courses on this stuff, but essentially what we're doing today is half of one of these courses."

Forrest, MATH 247
"The only way to master this is to do about 4000 of them, and if you solve 4000 of them, you will never want to see another one again. There's nothing I hated more than solving these things."

Forrest, MATH 247
"If I put $e^{x} s$ and sines in there, you're toast."
Forrest, MATH 247
"Sometimes it's nice to start with a problem that you know the answers to so that you can see how ugly calculations give you obvious answers."

Forrest, MATH 247
"How do you solve these kinds of equations? Use your imagination. Do whatever you can think of."

Forrest, MATH 247
"Well, if you have more than one constraint, it's the same theorem except that it's a lot uglier."

Forrest, MATH 247
"I put one of these on the assignment to convince you that you really don't want to do this."

Forrest, MATH 247
"Don't get scared. I'm going to put a derivative on the board. You haven't come to the wrong class"

Geelen, MATH 135
[Prof] "... so you pop into vi and edit your file ..."
[Student 1] "Vi? What's vi?"
[Student 2] "Yeah, what's vi?"
[Prof] "Vi? Vi! ... vi, vi, vi, vi, vi! Emacs sucks, OK?"
"What I'm going to do is wave my hands a lot until you believe me."

Geelen, MATH 135
"I teach confusion very well."
Hepburn, CHEM 350
"You'd almost think I planned these lectures... it's not true."
Hepburn, CHEM 350
"In real code, not the code you guys write... people spend a lot of time, money and effort, you guys only spend a lot time and effort."

Kates, CS 246
"I was kind of shocked when I saw the price [of the course text] but then I said, 'Nah, I'm not buying it.'"

Mann, CS 251
"We're not surgeons here - we're butchers."
Nishimura, CS 466
"We deal with problems with a cleaver."
Nishimura, CS 466
"At least I didn't hit any of you - that'll happen in the second half of class."

Nishimura, CS 466 -
"I'm not old enough. I never used punch cards."
Pretti, CS 240
"Does anyone remember what I called it? ... Is anyone taking notes?"

Wagner, C\&O 330
"I like it when people point out my mistakes."
Wagner, C\&O 330
"You're walking down University Avenue and someone comes up to you with a permutation and asks you how many cycles are in it. You don't want to be surprised."

Wagner, C\&O 330
"...because they [complex numbers] are not imaginary, dammit! I'm mad."

Wagner, MATH 135
"You come home and your significant other is hogging the remote, or even cheating on you, and you kill them in a fit of rage, you aren't held culpable."

Wallis, PSYCH 256
"...along with some stunningly good commentaries, some of which are utter crap."

Wallis, PSYCH 256
"...put me in a robot and it works perfectly but still doesn't understand shit."

Wallis, PSYCH 256
"The chocolate bars are all mine; You don't get any.
Zorzitto, PMATH 351

## Sorry, I don’t Smoke

## From your Snuggly Social Director

The title makes more sense if you read all my titles in order: Let's Get Mathies Laid; Laid Yet?; Damn, just take Tylenol or something; If I told you that you had a beautiful body, would you hold it against me; Sorry, I don't Smoke. You figure it out. No, no the last article didn't work, it's the one problem with being me, no one takes me seriously. I can never really hit on anyone I know, 'cause everyone just assumes I'm being me, it's very hard to tell when I'm being serious, but there are ways, unfortunately no one knows them, well no one in Waterloo. Ah well, I'd rather have that problem then have people take me seriously all the time, cause then I'd probably have been killed and sued more times then I can count by now.
OK, I give up, I've done everything but skip through the halls handing out condoms and handcuffs with a wink. Hmmm, that's not such a bad idea, maybe that's what I should do. Wow, I should be desperate more often, that's when I get my best ideas (where best = craziest by definition). Those are my words of the week (by definition). I can prove anything with them, I just say what I want to prove and then I say "by definition". Sure it isn't logical and normally completely wrong, but it works in my world.
Well this is the last mathNEWS of the term, and with that, the last mathNEWS article from me as social director. So you all must be asking yourselves if this is the last you'll see of the Snuggly Wonder. Fear not ye young souls who thirst for rants, raves, and randomness. I shall return next term (W99) and who knows what my next MathSoc incarnation shall be? Well actually a lot of people know, but I'm not allowed to say. As for the summer, well I'm a regular student so I'll be home in TO for most of the summer (except when I go away to camp in July), maybe I'll email in articles, who knows. But I'll be sure to visit for some reasons (very punny).

So we have a tree in the MathSoc office, and of course it is decorated with things like candy canes, so I've been nibbling on them. I like ornamental things I can eat, like women. I hope nobody actually reads this, or I could be hit, nah I'm me. (Please don't hurt me, actually... spank me, I've been a bad boy!)
Last week's article had an editorial comment that said that I "started babbling about a pink van and dissing a former mathNEWS editor.", basically I was edited so that I could fit on one page, but my loyal public wanted to know what was up, people wanted to know what I wrote, so here it is: (Note, I am not dissing Latrell, he is a really cool guy, the first official "da man", and a really funny drunk)
We should have a pink van. Every other faculty / department has a van (you know the white ones that say Department of Optometry or whatever). We could use it instead of renting a cargo van for orientation. We could use it to get stuff for social events. We could even let the faculty use it occasionally (if they chip in). And it's most important contribution would be that it would actually get Brian "Calculus Cowboy" "Latrell" Fox a job. He could come and be our Pink Van Driver, and he would wear an all pink suit, with a cute little pink hat, and we would call him Jeeves and he would call us all sir and ... This is about where the Bomber staff came over and said that I had had enough and proceeded to take away my drink (this happened at the Bomber at the leader party after frosh week). There was only
one problem with this, I don't drink, I never drink, they too away my water, I got cut off from water. Ah well, that's what Ige for ranting in public. Back to something somewhat relevant "What's your eigenvector doing in my inner product space"
Well let's talk about something real. Ummmm... Oh ya, Movi Night. Well yesterday we had Les Miserables and Casablana in DC1304 and Face Off and Con Air in DC1302. So Matt, Cha and Richard, come on out, the rest of you, either you shoul have been there and you suck, or you were there and you rock Last week we had SpaceBalls and History of the World Part soooo good. Incidentally in the Jews in Space skit at the end o History of the World Part I on the side of the ship it says Koshe in Hebrew. Well, that's it for movie night this term. I had fur being your movie guy again. I would love to do it again, but don't think I'll be able to. Don't you worry though, there will still be plenty of opportunity for me to get entire rooms of peo ple to scream out "Hi Snuggles". (Incidentally "Hi everybody"
"Hi Calc Prof, please stop staring at me, I'm sorry for yelling hi Snuggles in the middle of your lecture, l've been brainwashed I swear, it's like Pavlov's dogs only kinkier".)
Ahhh, I'm still bitter. So the latest in the Charity Ball thing is that we got a letter from the Auxiliary board saying that they will match our donation to the Emergency Ward (that means we go from 2829 to 5658 ). Who was the letter sent to, Jennifer Cote (as VPAS and hostess), Chris Buchanan (as PREZ), and Poesy (on the organizational committee), who was not on the letter? Me, I was basically the bloody MC of the event and the hospital doesn't even know I exist. This makes me feel just great about working so hard to help them out, let me tell you. Ahh whatever, this is just me using mathNEWS to get stuff off my chest, makes me feel better. Hey it's a new formula for writing articles, rant rant rant real bitch rant rant...
What do you guys think about MathSoc organizing something for New Years 2000. It was suggested to set up a New York kind of thing (or Montreal maybe?) Tell me what you think and I'll pass it on to next term's council: email social@mathsoc. Or email me to comment on any of my social events, I've got to make some sort of report so that future social directors can use my good ideas. Oooo, I almost forgot, There is now a Social Director Photo Album, in the MathSoc office, it has all the pictures from Pub Night and Charity Ball (and random other things). Hopefully it will grow and grow in the terms to come, so be sure to come on out and check it out. (Be sure to read the rules at the beginning, they're amusing).
Well, it's 3:27 AM and I'm tired. It normally doesn't take me this long but I was consentingly abducted for 3 hours. Don't worry, it was Something Good. Thinking back I had a fun time so it was worth it.

Stephen Snuggles Skrzydlo
PS : My new goal in life is to one day say "It's good to be king" (after an appropriate action of course).
Note: The opinions expressed above, do not necessarily represent those of mathNEWS, MathSoc, or even my own.
PPS : Thanks to everybody for making this my funnest term yet, Goodbye Everybody. Layla Tov.

## Sex, Lies, No Videotape Required

Silly That I Have to Put Sex In The Title to Get Your Attention

Well boys and girls, it seems your memories are short, so I'm forced to write this up again and remind you all of proper etiquette (read "how not to piss off people you see every day") in regards to relationships. I'm talking about public displays of affection (PDA). I've written about this before, but I realize that the previous articles were written in a less-than-serious mood which caused them to be disregarded. That was a mistake. [Note that the previous articles referred to were published in Fall 1996, in case you don't know what Max is talking about. - $\Sigma \mathrm{Ed}]$
Public Displays of Affection can be as discreet as a shared look across a room or as obvious as sex in the hallway (you may laugh, but it has happened right here in the Math building). Usually, in the outside world, it takes the form of holding hands, perhaps the occasional peck. Here in Math, PDAs are far more obvious and intrusive - it is quite easy to find people making out, even groping each other while one sits straddling the other (I have seen all of these within the past week). Herein lies my problem - I don't like the way Math operates when compared to the outside world. I don't like these PDAs, and I know I'm not alone.
There are many specific reasons that I could give you for why I don't like them, but they all boil down to one: I feel uncomfortable when people engage in such open acts of affection. I just don't like being around them. Now, as many people would point out, I could just leave if I'm not comfortable around them, and believe me I do, but I don't think I should have to. I have just as much right to walk the halls of the Math building and feel comfortable as anybody else, and by engaging in these overt PDAs that right is taken away. Perhaps I'm being a tad too old-fashioned, but I find that when two people engage in activities that those around them find unappealing, it's just plain rude. Society works on the assumption that certain rules are rarely violated. One of those rules is that a certain etiquette in

## Cynic's Corner

Life is all about perspective, in a way. A jockey and a basketball player are likely to see a scene differently due to height. A fourth year student may see a particular problem differently from a first year student. One person's garbage is another's treasure and all that. So, given this, take a minute to stop and think about the little things you might be able to do for other people. What might be meaningless gesture to you may seem very important to someone else. (Bear with me, I'm not going to turn this into a telethon, but the holidays are approaching, right? Not that you should only consider this stuff during the holidays.)
So you hold a door open for someone. Or help them pick up a bunch of papers they accidentally drop. Or compliment them on the latest mathNEWS, Imprint, whatever. No big deal, right? But given the amount of negativity that seems to be around these days (they seem to advertise Christmas earlier every year...), it could do wonders for another person's mood or selfesteem. It's terribly easy to pick out the error in something and focus on that, rather than view the rest of the picture which could be relatively flawless. Of course, it's even easier to simply ignore the picture altogether. (There's also those who look simply to find errors, but let's not consider cynicism to that extent right now.) Speaking up for the good things doesn't hurt;
all relations, both those with your friends and your lovers, is followed.
Think about the following possibility. Imagine that there was a small number of people who were nudists and wanted to walk around the Math building nude. Now, I would have to say that they probably have the right to do that. But would you feel completely comfortable around them? They're not doing anything wrong per se, and certainly aren't singling you out; that's just what they feel comfortable doing. Yet if everybody around them feels uncomfortable with it, to the point where people begin to avoid them (we're not just talking mildly discomforted here), should they be allowed to do it?

Finally, I'd like to point out that some of what I've seen on the third floor I'm quite certain I could bring to the attention of the office of human and ethical rights (or whatever it's called) and have them look into it. Don't get me wrong - I don't intend to ever do that. I mention it to try and give another perspective on the type of behaviour people are engaging in, and how society (not just me) views it.
So I'm asking that people stop these extremely overt and excessive PDAs. I don't like the fact that I now avoid spending time on the third floor, because I don't like seeing them. I know I'm not alone in this situation. Please, just respect the other people who are around you. They don't feel comfortable with overt PDAs, so don't do them. Just a common courtesy. . As a final note, I learned the hard way from my previous articles that people inevitably try to pinpoint just who I'm talking about. To squelch speculation right now, I'm not talking about anybody in particular. If I have a problem with a specific person, I talk to that person. Only when I feel that a wider audience needs to be reached do I write articles. Thanks for reading this.

Max Stevens
acknowledgements can be appreciated, compliments are rarely better left unsaid, and no hug is ever redundant.

Now, this doesn't mean go overboard on kisses or hugs and stuff, but sometimes it's nice to know that someone pays attention to you, even if it's a complete stranger. Not that it's possible to always do this, and especially during exams there's this problem with time, studies and all... I know I'm guilty of lack of correspondence this whole term myself. But if there is a little thing you can do that doesn't matter one way or the other, you might as well do it? who knows how others may interpret it. And that's about all I have to say, so thanks to those who read the column this term and even to those who didn't. Not that I can seem to make it a full column this time, but I'm not feeling too prolific and don't want to accidentally start getting really sappy. Apologies to the editors. (And why not write a column of your own for mathNEWS next term? I'm sure it can be better than this.)

Final disclaimer, the opinions expressed are my own, but I loan them out from time to time. Good luck to everyone on finals, happy holidays, and all hail Mercury, goddess of love and exams.

Greg "hologrami" Taylor

## Letter to the Editor

This is in regards to your claim on the cover of the October $23^{\text {rd }}$ issue of mathNEWS (vol 78, ish 4) that the most random number is 14 . This is clearly an oversight, but it triggered something inside me. Obviously, the public is unaware of the fact that 87 is the most random number. I am not sure if this is due to lack of coverage in the school systems, but it's high time something was done. I e-mailed a friend of mine, who happens to be an expert in the field of Decimoctoseptology (the study of 87), and asked him to send me a short proof of the randomness of 87 (there is so much evidence for it, that this IS a short proof).
I submit this so that the public may be educated, and hopefully we won't see any more mistakes along these lines. Thanks so very much for your time.

Darryl Blake
To whom it may concern:
It has come to my attention that an evil new idea has been seeping into our stores of general knowledge, nearly deeming them useless and untrustworthy. This business of the heretical number 14 being the most random comes as a shock and an inexcusable desecration of all that we all know to be true. I am afraid that it will no longer suffice to assume that everyone knows the real most random number to be 87, for now the powers of degradation are creeping into our thought processes and making it it necessary to think more purposefully about the situation at hand.
If we allow some 'breakaways' to suggest that the number 87 is no longer the precedent for randomness, our culture will be seriously deprived of a great part of its livelihood, being that the obvious choice for randomness is 87 . Fourteen, by its very nature, cannot be deemed random, for it has too many of the signs of patterning which show up in so many numbers (some more than others, but definitely, there are many numbers much more random than 14).
The first and most blatant contradiction is its simple divisibility by two. This, of course, is a mathematical issue, and may not be the most easily understood. Divisibility by two is certainly cause to be eliminated as a possibility for randomness. Any number that is divisible by two is, and I think you should agree here, obviously the result of doubling some other number. If it takes two of the same number to make one number, it is not random - it occurs twice every time! The other obvious factor is five. Multiples of five I'm sure even you would agree, cannot be random, and it follows with twos. You may now be thinking to yourself that 87 IS indeed a multiple and that I am hinting at only prime numbers being random. This is not the case at all. The number three, being the factor most at controversy, is itself more random than 14 , because it readily yields numbers of any digits, whereas an even number will only lead to half of them. Twenty-nine is the same. Not all prime numbers, though, are random, because as one counts higher, there are fewer prime numbers, and they are more special when they are reached. For example, everyone knows that 97 is a prime number, so when it is reached, its primeness is counted as special. There is nothing terribly unique about 87 (except its randomness).
For the artists among you, it is interesting to note that the eight is comprised of only curves, and the seven of only straight lines. This is not conclusive in itself, but coupled with other
evidence, it adds a new dimension
I have never, to my credit, claimed that 87 is the most ran: dom number mathematically, but simply the most random number. This finding is based on its presence in the world. It is a very common number when it does not need to be, and that is what makes it random. That is, there is absolutely no reasor to choose the number 87; it has no special properties, no so cial, economic, psychological, religious, international, or sta tistical significance, and yet, it appears in all circumstances ir prices, statistics, dates, percentages, and many others. This is where its randomness is manifest: there is no reason for it to be chosen, yet, it is very often chosen, to the surprise of all and the ecstasy of any who are in tune with the workings of the world. One tangible evidence of this is the overwhelming number of surveys done specifically by Statistics Canada (StatsCan) in the year 1987. A vast amount of research in a vast array of fields was conducted that year for the enlightening of Canadians to all that was happening in the world, and it is a shame that so few of us have had the intelligence to be able to see that what was seen by most as a study of Canada was actually a proof of how much more accurate research can be, especially in the form of surveys, when subjects are chosen randomly, when the situations, if allowed to vary, vary randomly, and, to be certain of the randomness of the results, the surveys and tests were done in a completely random year. This is not to say there is not good research that is done in other years, but the sheer amount that was done then suggests that the researchers knew of the benefits to doing tests in a random year. I am convinced that the wave of research done in the year 2087 will surpass any that is done between 1987 and then, simply because of this factor.
Fourteen, I am sorry to report, is just an unlikely candidate for the most random number, and it might be proven time and time again that 14 is the result of many operations, but those operations, clever as they may be, will never amount to being worth more than the findings of years of consumerism, politics, research, laity, and post-modern mathematicism. The most random number is 87 .

Keith Forrest, MDos. (Master of Decimoctoseptology) President, The 87th Society, Canada

## lookAHEAD

| mathNEWS |  |
| :--- | :--- |
| December 4 | Issue \#7 lazes about |
| December 8 | mathNEWS EOT Party |
| Location secret so you can't come |  |
| Math Faculty |  |
| December 7 | Last day of lectures |
| December 10 | Final Exams begin |
| December 22 | Final Exams end |
| Miscellaneous |  |
| December 13 | Chanukah begins |
| December 25 | Christmas Day |
| December 27 | Feast of Stephen |

Filler, Filler on the Page
Who should be Locked Up in a Cage?

## Spermatikos Logos \#5

KHi everyone! It's great to see so many submissions from new Logos solvers. It's just too bad it's the end of term. Unfortunately, last week I made a few mistakes in typing up the puzzle, and I corrected them as soon as it was brought to my attention. (Corrections were posted to the newsgroup, and added to the web page.) Submissions this week were received from: Rachel Nieuwland, Darryl Blake, Ann Scea, Allover Stripes, Ashif \& Oliver, Stuart "Jean-Guy!" Pollock, and Icor the Mighty. Thank you all for submitting, especially those puzzlers who kept submitting even when there wasn't really a solution. Correct submissions this week were from: Ann Scea, Ashif \& Oliver, and Stuart "Jean-Guy!" Pollock. The winner by random draw was (drum roll here) Stuart "JeanGuy!" Pollock! Go and pick up your prize in the MathSoc office.

## Last Week's Answers

| Name | Falling object |
| :--- | :--- |
| Mordecai McNaab | Safe |
| Rodriguez Paligenguza | Coke machine |
| Jobber LeBag | Pool table |
| George O'Hanaranahan | Drew's mom |
| Heywood Jablone | Maple key |
| Ghost of Winston Churchill | Tree |

## Injury caused <br> Cracked ribs Light bruise Dead Dismembered Broken leg Concussion

## This Week's Puzzle

Since this is the last issue of the term, I'm just going to do something fun. Let's see if you can match the following quotations with the character and animated movie they're from. (Hint: if you're having trouble, look up www.disney.com.) There are no submissions this week, but if you're really stuck, you can e-mail me at gngarbet@uwaterloo to get the solutions from me.
The characters are: Powhatan, the Genie, the gypsy puppeteer Clopin, Scuttle the silly seagull, the poacher Percival C. McLeach, Smee, Alice, Thumper.
The movies are: Peter Pan, The Hunchback of Notre Dame, Aladdin, Pocahontas, The Rescuers Down Under, Alice in Wonderland, Bambi, The Little Mermaid.
The quotations are:

- "This is getting curiouser and curiouser."
- "This is a dinglehopper."
- "Kinda wobbly, isn't he?"
- "Who is the monster? And who is the man?"
- "You get a pole, and I'll get a pole, and we'll go fishin' in the crocodile hole!"
- "Even the wild mountain stream must someday join the big river."
- "Ten thousand years will give you such a crick in the neck!"
- "Cap'n, there was no splash!"

Gigi Garbett

## ISSN 0705-0410

mathNEWS is normally a fortnightly publication funded by and responsible to the undergraduate math students of the University of Waterloo, as represented by the Mathematics Society of the University of Waterloo, hereafter referred to as MathSoc. mathNEWS is editorially independent of MathSoc. Content is the responsibility of the mathNEWS 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://www. mathnews. uwaterloo.ca/. Send your correspondence to: mathNEWS, MC3041, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1, or to userid mathnews@undergrad.math.uwaterloo.ca on the Internet.
By no means kings of the road: Richard Bilson, Chadwick Severn, Matt Walsh

## Subscriptions!

## You'll miss us, you really will

Just think... you're off on a work-term... that long commute every day... sitting at your desk for seven hours... occasionally you hit a key... just can't wait to get back to school... or just get some semblance of $\mathrm{U}(\mathrm{W})$ school life back...
Well, here's your chance! Get a subscription to mathNEWS, and every two weeks or so, you'll get a brand new issue in the mail! Bring it to work with you the next morning, and kick back and relax!
Is there a catch to this amazing scheme? You bet! You've got to fork over some money for postage. Brilliant, eh?

|  | Canada | US | Overseas |
| :--- | :---: | :---: | :---: |
| One term | $\$ 7.50$ | $\$ 10$ | $\$ 15$ |
| One year * | $\$ 20$ | $\$ 25$ | $\$ 35$ |

This is the cost of $\mathbf{6}$ (per term) exciting issues of mathNEWS. All prices are in in Canadian funds. And if we happen to publish more than 6 issues, then you get them absolutely free!

* The "one year" indicates 3 terms that are not necessarily consecutive. That is, if you're at $U(W)$ for the Fall 1998 term and off on a work term for the Winter 99 and Fall 99 terms, then you could get a year subscription for Winter 1999, Fall 1999 and Spring 2000. You could pick up the Spring 1999 and Winter 2000 issues in person!
If that doesn't make sense, come by the mathNEWS office to subscribe some time and we'll explain it to you! If you'se a bit far off, then send us e-mail to mathnews@undergrad.math. uwaterloo.ca.
Subscription forms (along with cash or cheque made out to mathNEWS can be dropped off at the mathNEWS office whenever one of us is around or slipped under the door when we're not. If you are mailing us a subscription form, please send it to the address listed in the ISSN along with your cheque. ( $\mathrm{F}=$ September to December; W = January to April; S = May to August).

Your money-grubbing editors

> mathNEWS Subscription Form

## Name:

Address to Which to Mail Issues:
$\qquad$

## Terms Desired:

1. F W S 19_ 2. F W S 19_3. F W S $20-$

Canada: $\$ 7.50 /$ term, $\$ 20 /$ year
U.S.: $\$ 10 /$ term, $\$ 25 /$ year

Overseas: $\$ 15 /$ term, $\$ 35 /$ year


## Grid Clues

Across

2. Not me
3. St. Nick
4. Mafia kingpin
5. Eggs
6. Aid for correcting typing errors
11.Pharmaceutical multinational Lilly
12.Pitcher's statistic (abbr.)

## Down

1. Attained victory
2. American
3. Location of perfection
4. Society (abbr.)
5. Actress Gardner
6. Russian assent
7. Kind of electricity
10.Type of camera

## gridWORD Solution for Issue \#6



## $\square<\pi \times \square>\square$ <br> gridCOMMENTS

Christmas time is here by golly
Well, my devious omission of numbers in the last issue didn stop the submissions from pouring in. It's always good to hea from people who have free time on their hands.

Correct submissons: Larry, Curly, and Moe; CGC Math Quad. Queen Sparkle and the $3^{\text {rd }}$ floor crew; Erin Smith, Buddy Betts and Mark Fletcher; Allover Stripes; Eric Fung and Hans Oh Somewhat less than correct submissions were received from Klepto-(JRA) and Stuart "Jean-Guy!" Pollock. The winner o this week's prize, selected by random draw, is the team of Erio Fung and Hans Oh. Congratulations - you can pick up you prize in the MathSoc office.

Having had my fill of binary trees, spanning trees, search trees, etc., I decided to go with a different kind of tree for this week's grid. There's no prize for this one, but if you check ow web page you might be able to find the solution. Happy holi days!

Richard Bilsou

## mathNEWSquiz \#6

## The End is Nigh

Good morning, all. Assuming that you're reading this on the day that it hit print, today marks the second-last day of lec tures for 1998, which brings me that much closer to the oft dreaded goal of graduation. I still have another term left in me so I'm not worried yet.
Anyhow, for those of you curious about last week's Squir answers, they were as follows: Fun and Games (1) St. Teresa 0 Avila, (2) Chaturanga, (3) A hand with three 4-card suits and singleton, (4) Atlantic City, New Jersey, (5) Two pairs, eights and Aces, so called because it was the hand Wild Bill Hickol was holding when shot and killed; Wild Kingdom (1) Giraffe (2) Opossum, (3) It has no tail, (4) Mostly brown, (5) Once when it dies; Poetry (1) "Kubla Khan", S. T. Coleridge, (2) "The Love Song of J. Alfred Prufrock", T. S. Eliot, (3) "Because I Would Not Stop for Death", Emily Dickenson (apologies for the slighi misquotation), (4) "Ozymandias", Percy Blysse Shelley, (5) "The World is too much with us, Late and Soon", Williar Wordsworth, though full points were awarded for "The World"

So I've received five submissions this week: Allover Stripe with 6, Eric Fung with 12, Lukas Kamps with $131 / 2$, and Malcolr McNeil and Darryl "Otis" Blake tied with 14 points. I flipped coin, which told me that Darryl is the winner this week. Con gratulations!

I don't have a Squiz for you this week, because (a) this is the last issue of the term, and (b) I've got a little too much Grapt Theory to do really soon to come up with lists of trivia. So I'l just bid you all adieu, and good luck on any finals that you might have to write. Watch this space again in about a montt for either me or someone else writing more Squizes. Until then..

Matt "So-Krates" Walst

