# mouth NEWS 25 Volume 77, Issue 2 Friday, May 29, 1998 



## Prez Sez

Hi everyone. Welcome to summer term. My name is Dan Mader and I am your new MathSoc President. There is lots of stuff going on this summer, both inside and outside of Math:

- C+D - Granita machine. Yes, you heard me right. Nice, cold, slushy, yummy drinks. Coming soon.
- MathSoc Office - New photocopiers are coming in later this summer. That means much better photocopies, for the same low price.
- Deregulation - $\mathrm{U}(\mathrm{W})$ will soon be able to decide how much to charge for CS and Engineering. That means that tuition may be going up a lot for CS students. If you want more info about this, or what MathSoc and FEDS are doing, come see me.

But whatever else happens, I want to hear from you. Come see me in MC3039 (across the hall from the MathSoc office). Or email me at prezemathsoc. Let me know what you think MathSoc should be doing.

You'll hear more from me throughout the term. In the meantime, keep on enjoying summer.

## USENIX and You

Did you know that the USENIX Association is interested in helping students attend conferences on a variety of topics? Visit my web page at http://math/~rblander/usenix/ to find out how you can apply for a grant so you can attend a conference related to your area of study. This program really works! Three $\mathrm{U}(\mathrm{W})$ students went to the Conference on Object Oriented Technologies and Systems in Santa Fe in April, and before that some went to a Security conference in January and to LISA last October.

Upcoming events include the general Technical Conference in New Orleans in June, and the Windows NT and LISA-NT conferences in Seattle in August.

USENIX is also interested in student-written papers, and in sponsoring research projects. Get all the details, including grant application forms, on my web page.

Robyn Landers [MFCF]
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USENIX Campus Outreach Representative

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Hoping the Pop-Up People Aren't Mad At Me: Chadwick Severn

## lookAHEAD

| mathNEWS |  |
| :---: | :---: |
| May 29 | Issue \#2 destroys New York |
| June 5 | Issue \#3 destroys common |
|  | decency and family values |
| June 8 | Issue \#4 production night |
|  | 6:30pm, MathSoc (MC 3038) |
| June 12 | Issue \#4 destroys the soul of all humanity |
| Math Faculty |  |
| May 30 | Convocation for Mathies |
| June 1 | 1B Info Night @ 7pm |
| MGC |  |
| June 3 | Class photo |
| Miscellaneous |  |
| May 30 | It's a freakin' Saturday |
| June 5 | Leonardo DiCaprio and Kate Winslet star in James Cameron's |
| June 7 | Edmund Fitzgerald |
|  | $3^{\text {rd }}$ round of the Stanley |
|  | Cup playoffs scheduled to end |
|  | Wait a sec... June $7^{\text {th }}$ ?!? |
|  | What's up wid dat?!? |
|  | mastHEAD |

## This is my brain on caffeine

Thank goodness sweeps is over. Now we mathNEWS staffers can spend our evenings working on mathNEWS instead of watching quality television, like that ostrich-riding-Cherry-Coke drinking guy.
For those that were wondering, this issue's official title is "The Toner Issue".

Some very exciting news for mathNEWS fans: the mint set of volumes 63 through 75 is getting bound. What does this mean to you, the mathNEWS fan? Nothing. The bound issues stay in the mathNEWS office, where you can't get access to them.
But, if you act within the next 15 minutes, you'll find math. NEWS Trading Cards on pages 9 and 13 in this very issue. Be sure to cut them out, paste them on cardboard, and laminate them. They're guaranteed to go up in value (Current value of trading cards is negative three cents).
Here are the folks who put a lot of effort into this issue, along with their answer to the question What reason would you be ineligible to run an Ottawa hospital? Chris McGuire (No hospital would let me play Magic ${ }^{\text {TM }}$ while on duty), Greg Taylor (Would only hire doctors named "Mizuno"), Gigi Garbett (It's hard to look "up" to a really short person), Mike Thorsley ('cuz then I'd have to live in Ottawa), Andrea Knowles (I have no concept of quiet hour), and Brian Fox (Man, another job I'm not qualified for ... figures). Peter Lizak and Marco Pedrosa also helped out, but missed out on pizza (and their chance to answer that question-thingy).
Thanks this issue goes to Ross Willard and Marion at Graphic Services.

Chadwick Severn (Lack of oh-so-desired doctor's certificate)

## gradNEWS

OK, there's lots but I'll try to be as brief as possible.
First, Grad photos started this week and continue next week until Wednesday. If you haven't signed up, won't be here in the fall, and want to be on the composite, sign up NOW because otherwise your picture won't be in the yearbook or on the composite.

Second, the class photo is being taken Wednesday June $3^{\text {rd }}$ at $4: 30$. Please be there at $4: 15$ (or as soon after that as you can, but before $4: 30$ ) so we are organized and ready for the shot at 4:30. Meeting location is on the main steps facing where the blue "CS" statue is. If you're not sure where that is, come ask.

Third, First Night Out was not the greatest because almost no one showed up. Given that we still aren't sure why this was, we would appreciate some feedback on the subject of social events (times, activities, etc.).
Buttons have arrived. If you have already bought one, you can pick it up either on pizza day (Wednesday) or from the MGC office. Please bring some ID when you do so we can verify that we are actually giving the button to someone who has paid for one.
We are now accepting pictures to go in the yearbook. If you have photos to submit, drop them off at the MGC office (or in the MGC box in the MathSoc office). Please put them in an envelope clearly labelled with the following: your full name, how we can contact you, if you want them back, and whether we can crop them or not (i.e. cut them to size). We need to know that last part because with any pictures that appear on colour pages, there is always the chance they may have to cut them to size.
Mark your calendars: March $27^{\text {th }}$ will be the Math Grad Ball at the Waterloo Inn. Keep your eyes and ears open for more details on this in the coming months as we begin to plan for it.
We are still building our mailing list. So if you are graduating in 1999 and want to get information on things you need to know about graduating this year, mail us and let us know that you want to be on the list. If you are already on the list and know other people who are graduating in the coming year, let them know about the mailing list.

Finally, volunteers are always appreciated on the Math Grad Committee. If you have an hour or two to spare at ANY time we will gladly find something for you to help with. Don't want to volunteer? Giving us ideas is just as good. We need ideas for the Grad Ball, yearbook, fundraising, social events, merchandise and a ton of other stuff. Mail us at mgc@undergrad.math or visit the office, MC3029.

Math Grad Committee 1999 MGC 99 - Prime Time

## The Game

a.k.a. S98 Engineering Scunt

So there we were, a group of about 3-4 mathies competing against the engineers at their own game. The result? Well, of course we didn't win because only engineering teams can win. But we were commended on our enthusiasm and extreme resourcefulness (especially considering we only had 3 or 4 people at any one time.) Unfortunately, nobody but first place was ranked so we don't know whether we beat Physics or not. Oh well. Special thanks and a huge round of applause go out to Chris McGuire, our fearless captain who tackled this challenge with only 3 days notice.

And for the reader, we have the following excerpt. It is taken from the Math answers to one of the Trivia sheet. The point of this section was to give long answers to each of 11 questions in 200 words or less. What did we do? We answered each question in EXACTLY 200 words, plus each answer referred to the answer to the next question. This excerpt, by myself and Chris Klein, is the answer to the question "How much flip could a flip-flop flip if a flip-flop could flop-flip?" The following question was "What is on the other side of a cartoon hole?" Enjoy.

Well, asking a flip-flop to flop-flip would fragrantly frazzle the flip-flop in furious and frankly farcical forms. Furthermore, change chisels chapingly at children who choose flip-flops not flop-flips. But babies flop and flip basically bare-bottomed and are bouncingly boisterous about being barely bathed. So simply, seeking several flop-flips in a flip-flop scares so many simpletons and causes stampedes, although seven sounds stupendous in the symphony of synergy. Twenty takes too much time and terrifies accountants who tally flip-flops but not flop-flips. Perhaps with ponderous preparation Pinky, who doesn't ponder what Brain ponders, would pick pi flop-flips perhaps rather precariously. Or is that precociously? Regardless, reams of flipping rouses these cartoon rats rather rudely and their wrath ruptures realities raising the realization of the cartoon hole. Verily, various vapid vivacious vultures veer toward "vrai-semblance". However, hope and holes hold no $\mathrm{H}_{2} \mathrm{O}$ when heated haphazardly. Carefully considered, the conclusion that converges on these cartoons, is the creative conceptual non-consonant. Every eagle, earwig and earthman knows that e is every flip-flops extraordinarily excellent egotistical ideal. But forcing flip-flops to flop-flip a fixed number of flips, or even flops is flagrantly non-functional, unfair. So you see, our solution is stochastic and slimy ... yet satisfying.

Amy Green
Math Grad Committee Chair - Class of '99
MGC 1999 - Prime Time

Do you ever get the feeling<br>that you're being watched? Oh, yes you do.

"I think I'll use the word anomalous ... oh, I don't know how to spell that word. I'll say weird."

Mackay, STAT 231
"[After a suggested differentiation] No way - not in Hell does it equal that. Even the devil knows how to differentiate."

Serge D'Alessio, MATH 138
"But that is the quick, 'Calculus' way of doing it. This ... this is the slow ALGEBRA way we'll do it."

Ng, MATH 136
"[dancing and skipping across the room] I'm an electron! I'm an electron! Look at me!"

Vasiga, CS 241
"He performed the treasonous act of getting married."
Burris, PMATH 330
"It's the beer drinker song, not that I drink beer ..."
Jackson, C\&O 230
"This is a gallimaufry!"
Jackson, MATH 235
"Hell's bells and buckets of blood!"
Jackson, MATH 235
"If you have questions and you're not asking them, it's not great, but if you have no questions because it's great, its great ... did I mention that it's great?"

Tunçel, C\&O 350
"Some people might be getting bored, but we don't worry as long as it's not the majority."

Tunçel, C\&O 350
"Oh well. Forget it, go back to sleep."
Sivaloganothan, AM 250
"You are right. I am only doing this to be difficult."
Mavaddat, CS 351
"[When trying to set up a video projector] I think I've uttered all of the right incantations ... this tickle-me-Elmo has not been appropriately tickled by my cables, connectors, and what-not."

## Dickey, PMATH 360

"I never make mistakes... Nobody's laughing. You're supposed
to chuckle."
Dickey, PMATH 360
"Heaps are, really cool, actually."
Bacchus, CS 240
"[After a student asks a complex question] You've been reading
too much."
Corning, PSYCH 10 :
"This remark is kind of pointless ... but we'll say it anyway!!

Grove, CS 338
"That's the beauty of conceptual design, you don't have to know what you're talking about at all."

Grove, CS 338
"You have this incredible resource standing in front of you. Ask me any questions. Now you have a chance for hints and all you can think about is getting out into the sun."

Lewis, MATH 138
"I like using symbols. That's why I became a mathematician and not an accountant."

Kolkiewicz, MATH 136
Prof: " $\frac{1}{n+2 \sqrt{n}}$ is larger than $\frac{1}{n^{2}}$ converges. Where does that leave us? ... Screwed, that's where it leaves us. Anyone else?" Student: "How about $\frac{1}{n}$ ?"
Prof: " $\frac{1}{n}$ is larger than $\frac{1}{n+2 \sqrt{n}}$. However $\frac{1}{n}$ diverges. Where does that leave us? ... That's right. Screwed again."

Lewis, MATH 138
"You have a slot labelled 'discussion' on your schedule. But really, I have nothing to discuss there."

Singh, CS 446
"What is it about this inequality that makes me so happy?"
Tunçel, C\&O 350
"Uh, wait, I'm not understanding what I'm saying."
Vanderheyden, CS 486
"Well, that was my first mistake of the day, too bad it wasn't earlier, then you would have missed it."

Dickey, MATH 135
"Benjamin Franklin was a smart bunny. Have I used the word 'bunny' here before?"

Bulman-Fleming, PSYCH 101 "It reads like a story, and that's because it is!"

Davies, HIST 100
"1917 ... Hey, that might relate to our course!"
Davies, HIST 100
"[referring to the Russian math system] ... Good stuff! I didn't know that before ... three times four is thirteen."

Davies, HIST 100

## Quantum Loop

Sham sank into his - or technically Professor Cal Q. Late's office chair. The only thing he'd been able to say when he'd seen the size of the class he had to teach was "Oh Boy". Fortunately, Hal had been able to discover what his lecture had been about in time, so things weren't off to that bad of a beginning.
"Okay Sham - I think we've got it!" Hal piped up, appearing behind Sham and walking forwards through the desk.
"At last," Sham breathed.
"Perfect numbers are not just number whose divisors add up to the number itself, they're even the sum of a series of consecutive integers ... (Hal paused to tap his calculator, his link to the parallel hybrid computer running Quantum Loop) ... and BigE says that the number $2^{216,090} x\left(2^{216,091}-1\right)$ is a perfect number."
Sham cast a look at Hal. "So is 6, but that still doesn't explain why I've looped here."
"I'm just trying to lighten the mood," Hal defended himself. He punched a few buttons on the calculator and took a puff of his cigar. "Well, right now it looks like the object of this loop is to improve Professor Late's record."
"The record with his class?" Sham wondered.
"Yeah, well, it seems that the person you looped into really lives up to his name; he's rarely on time. Also he's missing assignments, losing files, memory errors, stack overflow ..." " Hal blinked at the readout. "Geez, I told Sushi not to do that programming upgrade!"
Sham cut off Hal's grumbling with a wave of his hand. "I get the idea. So I teach a few classes, attend a few meetings and thus keep Professor Late from getting fired? Sounds almost too routine."
"Well, this character appears to be some type of absentminded genius, too wrapped up in work to even recall his address. Knows his stuff though. Anyway, we'll keep working on scenarios," Hal assured. The white doorway appeared behind him again. "In
the meantime, just consider this loop a break." Hal stepped through the doorway and was gone.
"If I got a break during a loop, I'd exit," Sham mumbled to no one in particular. He turned back to his desk, deciding it was time to familiarize himself with his new schedule.

Two weeks later, Sham had the schedule down pat. But he didn't seem closer to looping, and Hal hadn't been able to identify any critical section of the loop. They appeared to be deadlocked. "And it's getting frustrating," Sham murmured, tossing some darts at the dartboard he'd found in Professor Late's office.
"What's frustrating?" came an unexpected statement.
Sham turned to see another professor in his doorway. "Uhhh, can't hit the bull's eye," he said, hoping the darts in the treble twenty would go unnoticed. His colleague had other things on his mind though.
"So, Cal - you haven't come by for any Java the last couple of weeks."
"Uhm, I've been busy," Sham ventured. Drat, he didn't know the other person's identity, but apparently he should have been making routine calls.
"Been doing any work on our project?"
"When I've had time ... "
"And what about that unusual prime number sequence?" the visitor pressed, now looking a bit concerned. "The one that goes $31,331,3331,33331,333331 \ldots$ "
"Oh that!" Sham said hurriedly. "That's ... that's actually going to fail when you have a certain number of 3's," Sham realized. "A later number in the sequence isn't prime."

## Which number breaks the sequence? Who is this person quizzing Sham? Check back in two weeks...

Greg "hologrami" Taylor

## Sine Field

## A column about nothing

You know what I heard the other day?
[No, but I have a feeling you're going to tell me.]
Our lives are like a sine wave.
[A sine wave?]
Exactly. They have their ups and downs, but they're always moving forwards.
[Why a sine wave, why not a cosine wave?]
Because a cosine wave doesn't start at the origin.
[Well, sine waves don't necessarily start there, what about negative values or displacements?]

Those don't count. We're just looking at a specific field. Otherwise life would go on for infinity.
[How specific are you talking?]
Depends on the life.
[So everyone's life is a sine wave.]
That's what I said.
[Then how are new sine waves made?]
By integrating two different, compatible sine waves.
[I don't know if I buy that.]
You don't have to buy it, it's just a theory.
[And cats have nine sine waves?]
What?
[If cats have nine lives then they must also have nine sine waves.]

What are you bringing up cats for? Leave cats out of this.
[What about exponential or logistic growth? How does that fit the theory?]

Well, a bigger sine for the overall population bounded by some exponential value.
[So not only is individual life a sine wave, all life is a sine wave?]

If that makes you feel better, then yes, ALL life is a sine wave.
[All life except cats.]
Fine, you want to be difficult? Then how about we just say life is NOT a sine wave. Are you happy now?
[Oh, I'm at the peak of my sine wave.]
Sometimes I wonder why I bother talking to you.
[I'm sure everyone else is wondering the same thing.]


MATH 137 Lecture $\$ 12$
Performed by Ross Willard Born: October 30, 1957 Seattle, Washington



Most of the variables used in Ross's examples weren't random. Astute students will notice that Ross's variables always form the word STARBUCKS. The chart seen in the background is, in fact,

Pictures, Text, And Graphic Mashing By Chadwick "I'm tired now" Severn

Guy Who Hung Around
Peter "I hung around" Lizak
With thanks to: Ross Willard, Dan Pollack, and the Pop-Up Video guys, Tad \& Woody
(With many apologies to Tad \& Woody)

## Some Junk

## What the hell is a luchador?

The first thing you notice living in Waterloo, is that there are far too many slow, stupid people around ... and that they always seem to find you when you are most in a hurry. It seems that the instant you notice that you're late to class, a flock of slow, stupid people with nothing better to do then hang around you talking about how they keep their socks smelling fresh and why that last issue of mathNEWS sucked. You have to either put up with their maddeningly slow flow through the halls until you can find an escape, or push your way through them, thus interrupting their scintillating dialogue and earning yourself an "excuuuuuse mee" stare etched into the back of your neck as you pass by.

That is why I support the carrying of handguns.
Now, I know what you're thinking and I just want to point out straight away that I would never support the use of deadly force on any other living thing. What I am thinking of is more like the old western movies where the bad guy yells out "now dance!" and fires several rounds into the floor to get the old bank teller whom he is absolving of his money started.

Consider, if you will, being late for your differential geometry class. Knowing that missing even a minute of this class is equivalent to missing days of any other course, you make a dash for the room.

But wait, three MATH 137 sections have just let out and the fourth floor halls are all full of slow, stupid frosh deciding whether or not they would like to go to the C+D to eat or to the comfy lounge to play cards. Weaving through this leaderless swarm could take hours of exciting Riemann tensors out of your life. Might as well just go home.

But wait! Two rounds into the ceiling effectively clear out all of the frosh leaving only open space between you and your beloved covariant derivatives. The day has been saved again.
There are many other uses for such encouragement, such as when two slow, stupid people stand by the ice-cream freezer in
the C+D, blocking you on your way to your purchase. A fer shots into the ground effectively moves their butts out of you way. Or when certain mathNEWS staffers include more tha five puns in one sentence. OK, maybe I would support the us of deadly force against some living things.

## How to fix the education system

Speaking of slow, stupid people and right-wing ideas, I think that the best way to fix up this whole education "crisis" is th put the ICR in charge of curriculum development from JK all thin way up to Ph.D. students. No, I speak not of the Institute fu Computing Research, a heavily CS-biased but otherwise sane o: ganization, but rather the Institute for Creation Research, thos wacky folks from California pushing to get the Genesis accour of creation put back into schools and science taken out.
The most obvious benefit to this arrangement is that the ICP would probably work for free, thus saving the taxpayers million of dollars that would otherwise have to be given to qualified bid ders, but there are other benefits as well. For example, withou all those nasty, evil, sinful bits of "education" we could get rii of, not only grade 13 , but all of the grades after grade 6 as well Anyone who had the stamina to stay a whole eight years woull receive a doctorate for their efforts.

Think of the productivity gains this would cause. Instead d taking some 17 years to turn a squalling infant into a skille worker, the process would be complete in only half the time Think of all the highly skilled workers entering the work force decade early and the massive boom in productivity that woulk result. The Ontario economy would go through the roof.
Well at least it's a better idea than this deregulation crap. Which is another reason I might like to have a handgun.

Mike "Jonnie $e^{x}$ " Thorslef

## Cynic's Corner

## That sinking feeling

Hopefully this won't become a regular column . . . at least, it wasn't my original intention. But I'll give all of you at least one more chance to laugh at my misfortune. Picture this: you come home late after struggling through yet another day, open the door to your apartment and get washed away by a flood. Okay - that might be a bit of an exaggeration, but the water pouring over the edge of the kitchen sink was certainly doing a number on the floor. No, the tap wasn't on.
Funny thing about the piping of sinks in apartments is that they appear to be connected straight down from floor to floor. (I'm going by observation here.) What this means is that when a person on floor $i$ washes the dishes, the residue will go down central piping past floor $i-1, i-2$, and so on. But THIS means that if a clog forms further down, the water won't rush all the way back to up floor $i$; it will take the quickest path out at, say, $i-2$. So the people on floor $i$ can dump grease down the sink, the law of gravity dictating that any consequences will only occur on some floor below them. Really nice.

Not that this is exactly what happened (I'm not sure whad happened), but the dark water bubbling up out of the sink had to be coming from somewhere. I know I haven't been using the sink much, and I don't think my roommates have either. I'm als told that this is not the first time it's happened, so maybe N. have a design flaw. But anyway, getting to the point, here's this week's advice: live on the top floor of an apartment complex not the ground floor. Odds are you'll have less to worry about And when you DO live on the top floor, think about what goe down your sink. Things to avoid: large potato peelings (ani potatoes), paper towels (or dish towels), hair clogs (includinf small animals) and quick-drying cement.

Again, this has just been me and my opinions, worth les than the standard two cents because my brain has been lost if CS recently (which actually spared me from some of the worst d this incident). So until next time, let's just hope that this sort of thing doesn't also happen with toilets.

# Brake Lines, Porcupines \& Purple Glass 

What You Can Find In One Weekend

With school finally underway (unanimous cheers), I sat down at my desk and tried to figure out what I'd do with myself this term, besides devoting my life to Computer Science. I recently discovered a passion for climbing, and a friend informed me that there is now a bouldering wall in the PAQ. So I set out on Thursday of last week to attend the first meeting of the Outers Club, where I could purchase a pass to use the Bouldering Wall.
During the meeting, it became clear that in order to get a Bouldering Wall pass, you had to get an Outers Club membership as well. At first, I remember thinking, "What a scam, I'll have to join the club just to climb, but heck, $\$ 22$ for 4 months of climbing ... I'm still in like gin." Then I also realized that being a member of the club meant I could go on Outers Club trips, which could be cool. So I paid. Then one of the executives mentioned he was running a trip on the weekend and if anyone was interested they should let him know. I thought, "Hey, wow, I haven't hiked/camped in years. That would be excellent." Plus, soon the workload will be so crazy that I won't have a free weekend do to that kinda thing. So I went up to the guy and gave him my name and number.
Two days later, I was sitting in a blue Caprice, driving towards Lion's Head, a trail on Lake Huron. And as I got to know the people in my car, I realized, damn, these people are so awesome. They care about others, and they really enjoy living. It's funny how the people who you find to be the best people are the people who bring out the best in you.
The hike was fantastic. One of the people on the trip said to me, "This is really nice."
"NICE?!?!", I exploded, "Nice is like when you wake up in the morning and you find that you have enough milk to eat your cereal. That's nice. This is amazing! Incredible!" And it was. Every view was breathtaking. We sat on 300 feet high overhangs, watching the wind carve patterns on the water, without a care in the world. We roamed through brightly lit forests which had rows of beautiful trilliums standing at attention in the sunlight along the path. We sat on the beach and watched the full moon reflect off the water as shooting stars streamed across the sky. Everywhere you looked you saw a scene that was inspiring and yet serene; every view was a magnificent landscape, a work of art by the most skilled imagination, which both excited the spirit and at the same time soothed the soul.

And the whole time: in the car, on the cliffs, in the forest, on the beach; I kept thinking, "This is where I want to be. There is no other place I would rather be right now."
How many people can say the same thing at this moment, as you read this article?

Probably very few. Maybe none. Then why are we all here? I can't tell you. But I can tell you why I am here. I am here because I want to be assured a job when I graduate. I am here because I want to go to a school with a good reputation. I am here so I can take co-op so that I won't have to get a loan and thus owe a lot of money.

In other words, I am not somewhere else because I'm afraid that I can't make it there. I am afraid that if I follow my own heart I may follow a fruitless fancy and end up nowhere. I am
afraid that I will not be able to financially afford any alternative. I am afraid to be myself because the world won't accept me. Afraid of changing, afraid of taking risks. Afraid of making the wrong decision.

That is just one of the things I discovered this weekend: My own cowardice. I sit around and tell myself that I love CS, that it's the program for me, but who am I kidding? I mean, I can do the work, and I can handle the math, but do I love it? Do I want to code for the rest of my life? I don't think so.

So here I am with one shot at living and I'm blowing it because of fear. But that's gonna change. From now on, I plan on living to the fullest. I'm not going to worry anymore. I am telling people how I really feel about them. I am searching for the things I am really interested in. But most of all, I'm being honest with myself and what I really want. And already, it's making a huge difference. I've found all kinds of volunteer opportunities, I've thought of new career ideas, I've met new people and I've rediscovered old friends. I'm not sure what it is I want to do, but so help me, I'm not gonna sit back and wait until I'm old and quietly living a life of silent despair to realize that I am unhappy. I'm going to actively make an effort each day to find out exactly what I want, in every facet of my life. And then I'm going to make it happen. I am going to do it.

Until then, I'll see you all in class.
Jesse Bergman

## mathNEWS Trading Card \#1

Collect them all!


## Of Separatism, Patriotism and Bigotry

The recent and ongoing "scandal" surrounding the appointment of David Levine in Ottawa is, in my view, the most sordid, disgusting affair in the past couple years of national politics.

A brief backgrounder for those of you tuned out on the news: David Levine, a Québec civil servant, was recently hired to be CEO of Ottawa's largest hospital. He was hired for the most obvious of reasons: according to the hospital board, he was the best candidate for the job. However, a huge public outcry has arisen over the fact that Mr. Levine is a former member of the Parti Québecois and, it might be inferred, to some degree sympathetic to the Québec separatist cause. Calls have been made for Mr. Levine's resignation, and many citizens have even threatened to withhold their monetary donations to the hospital.

I am a Canadian. I am also a Québecois. I am proud to be both. But when I turn on the radio each morning to hear all too many Ottawans' chants of "Separatists must go!" and someone saying, "If I were a violent man I would come down there and beat the living daylights out of him" (I kid you not), I'm tempted to ask myself why I voted to keep Canada together, that fateful October 30, 1995. I certainly didn't do it so that a man could lose his job for having differing political views, so that the policies of our institutions could be dictated by those who would resort to insults, threats, and violence.
In Québec City, the city I call home, and in Montréal, where I am presently on work term, I hear, more frequently than I would care to, news reports of separatist extremists shouting "Anglophones go home!" and singing (badly, at that) Gilles Vigneault's "Gens du pays" (regarded by some as Québec's "unofficial anthem", and a rallying song for Québec nationalists). Fortunately, these unpleasant individuals are few and far between, and I have

## More Barf

rarely, if ever, met one in my decade-and-a-half living in the province. Most separatists I've known are pretty much like el. erybody else in every other respect; they worry about work a school and generally go about trying to make a happy life for themselves.
When I hear those frenzied cries from Ottawa I see that these Canadian "patriots" are more like the separatist extremisto whom they oppose than they would ever care to admit. Mori troubling is the recent poll showing that fifty-two per cent d Ottawans surveyed oppose Mr. Levine's appointment. It's ob vious to me on which side of the Ottawa River lies the problem of discrimination and intolerance.

Actually, Mr. Levine has so far declined to state his political views, and he has every right to continue to do so. In other words, people are not opposing him because of his beliefs, bui based on their presumption of his beliefs. My best friend is a francophone; would I hate her presuming she is a separatist (which she isn't)? I have had several self-declared separatist friends and co-workers. How do I feel about that? I don't, or at least, not any more than I do about their religion, the colour of their skin, their favourite NHL team, or their opinion of Céline Dion.

Suppose, that instead of saying someone should not be hired because he or she is a separatist, one were to instead of "sepa. ratist" say "woman", "Jew", "black", or "homosexual". Who in these times would dare say such a thing? Indeed, Part 1, Subsection 2 of the Canadian Charter of Rights and Freedoms in no unclear terms states that everyone has the "freedom of thought belief, opinion and expression". I can't help but see irony when I hear people calling Mr. Levine "a criminal". Who's trying to break the law? Certainly not Mr. Levine; he's just trying to ruw a hospital, of all things.
I am dismayed to see the news media call this a "nationd unity" issue. Mr. Levine's job has no effect whatsoever on national unity. The issues here are those of tolerance and individual rights, and of discrimination and public hysteria. The right to have a dissenting opinion, and the right not to be dicriminated against for it, are entrenched in the principles of the country those Ottawa flag-wavers say they are defending. V: olating those principles only serves to weaken the country; the "patriots" screaming and yelling for Mr. Levine's resignation are more a threat to Canada than Mr. Levine himself will ever be.

I am reminded of the French writer Voltaire, who said (in so many words), "I disagree with what you say, but I will defend unto death your right to say it." It's a shame his wisdom seems to have been lost to so many people.

Patriotism is supposed to be about loving your country, not about prejudice, hate, discrimination, and bigotry. To deny ${ }^{\circ}$ person a job for which he or she is rightly qualified simply because of his or her political beliefs is to advocate the systemic repression of a, and likely thereafter any, minority. I would sug gest to those who would do so to find another country to live in, more suitable to their vision of "democracy": say, China, Cuba, or Iran.

Viêt-Tâm "I love this country too" Luu

## A HUGE THANK YOU!

Not so long ago, almost 5 years ago, I recall the $\mathrm{C}+\mathrm{D}$ as being the HQ of Frosh Week 93. I recall walking through the doors, feeling very shy and intimidated yet very proud to be a student of the prestigious University of Waterloo (and a Mathie at that!), as I approached the icebreakers and frosh leaders.
Despite the fact that I was home-sick after my first night, in what seemed at the time a boony town, I enjoyed my frosh week immensely. The incredible friends I made during that week are the ones I now call my best friends. There was hope! I was sort of convinced that I could make this boony town my new home - for a short while anyway!

After my first CS 130 and M135 midterm, I changed my mind! I wanted to run away as far as my legs could carry me! I missed being at home. I disliked the fact that I had to spend my Thanksgiving working on a CS and M137 assignment. Fortunately, I was a co-op Mathie - thank heavens for stream 4 co-op terms! Yaaay! I eagerly looked forward to January 94! This, I told myself would solve all of my problems!
Along came January, 1994, the 2nd or 3rd, or more specifically my first day of my first co-op work term. Alas! I soon realised that my co-op work term didn't quite provide the escape I had anticipated.

I was forced to wake up at the crack of dawn so that I can be at work for 8:30 a.m., get dressed up, and ride the red rocket (TTC) with a bunch of people with either a hygiene or an attitude problem. After my first week at work, I realized that I hated work terms because I was not only obligated to be at work for $8: 30 \mathrm{a} . \mathrm{m}$. whether I liked it or not(!), but I was forced to behave and be responsible like a grown up. So, I started looking forward to my first Spring term on campus. Yippee!

My fellow graduates, if you are reading this you know the rest! It got a thousand times better once I was over the hump term (2B). Despite the relocations every four months, the new phone number and address that came with it, and the idea of cramming my worldly possessions into two suitcases that I can carry - I was beginning to like this alternating work/school thing!

It seemed like I was constantly making new friends, travelling to different cities (Huge thanks to co-op!), working on various new and exciting projects on my work terms, while acquring first hand knowledge and work experience of my choosen career. I was doing courses that I actually found interesting and enjoyed.

For this, I am forever indebted to my frosh leaders, roommates, friends, T.A.'s, professors, co-op and academic advisers, the TK desk officials - safety van for their patience with my map and I, and of course good ole' MathSoc for the bank of past final exams, study rooms, the "lost and found" bin and everyone else in the Math faculty that contributed towards the 4.5 years that I have been here.

As I convocate tomorrow with the rest of my graduating class, I can't help but think of those people who had the most impact on my life as well as the rest of the Class of 98.

So, here is an impromptu list of some of those generous people that are responsible for producing such a high quality graduating class, such as the class of 98 !

Professor Zorzitto: Thanks for the smooth transition of High School's Calc. to University's Calc. This was the most inspiring 1:30 p.m. class! You must be a Dad! We were sincerely impressed by your incredible patience with us ... a class with almost all of the froshes - it seemed like that at the time anyway!

Professor Willard: Thanks for the most hilarious yet VERY WELL TAUGHT Algebra class. We won't soon forget eigenvectors and eigenvalues in a hurry!

Professor Hewitt: Thanks for not only intimidating us into occupying the front rows first, but intimidating us into finishing the practice M138 \& M237 final exams before attending the tutorial sessions somehow he always knew who did the exams beforehand and who didn't!!!!

Professor Bennett: Thanks for intimidating us into doing our home work and attending the tutorials with your incredible memory of each students' names. We were truly worried after the first tutorial!!!

Professor Brown: a.k.a. the ActSci crew's adopted Dad! Thanks for your wonderful talks/advice your kind patience and time you took

Recipient of the 1998 J.W. Graham Medal in Computing and Innovation

Computer innovator Dan Dodge, president of QNX Software Systems, will receive the 1998 J.W. Graham Medal in Computing and Innovation at UW's spring convocation. As recipient of this prestigious award, Dodge will give a seminar on Friday, May 29 on "embedded applications technology," work that has evolved since his days as a student at Waterloo.

Dan Dodge, who with fellow UW student Gordon Bell co-founded QNX Software Systems Ltd., received a B.Sc. in Physics (1977) and a M. Math in CS (1981) from the University of Waterloo. Mr. Dodge became involved in operating systems as a student at Waterloo working on Thoth, one of the first message passing OS's - a fundamental concept of the QNX operating system.

After graduating from Waterloo, Dodge and Bell worked at BellNorthern Research (BNR) as programmers. By 1980, they were proficient in developing operating systems, and saw an enormous opportunity when IBM introduced the PC. While at BNR, they devoted their spare moments to the development of the QNX real-time operating system, and formed Quantum Software Systems Ltd., now QNX Software Systems Ltd - QSSL.

Though Mr. Dodge now spends much of his time running the business, he still writes significant amounts of code and is responsible for the QNX microkernel - the foundation on which QNX technology is built. QSSL is the recognized technology leader in the embedded computer system marketplace, with products in use in more than a million systems world-wide.

Mr . Dodge is the fourth recipient of the J.W. Graham Medal, awarded annually to a Waterloo mathematics graduate who exemplifies the qualities shown by Professor Graham. Known as the "father of computing at Waterloo," Wes Graham made many innovative contributions to UW and to Canada's computer industry. He created the computing infrastructure that has made Waterloo's name synonymous with computing and computer science throughout the world. He led teams of experts who created the software that established UW's world-renowned reputation in computing. He established the model used so successfully in creating many of the spin-off computer companies from the University of Waterloo's research and innovation.

Dan Dodge joins the ranks of previous medalists - Ian McPhee, former Vice President \& General Manager, Languages Division, Sybase Inc., Waterloo (1995); Bill Reeves, Technical Director, Pixar Animation Studios, Richmond, CA (1996); Jim Mitchell, Sun Fellow and VP of Technology \& Architecture (JavaSoft), Sun Microsystems Inc. (1997).

Dodge's seminar entitled "Embedded Applications: Technology for the Real World" starts at 2:30 p.m. on Friday, May 29, 1998 at the University of Waterloo in the Davis Centre, room 1350. Dodge will explain and demonstrate embedded systems and the related enabling technologies. Embedded technology has become a part of our daily lives, involving everyday activities like credit card authorization, cash registers, car navigation, traffic lights, home security, even surfing the web through your TV. He will focus on the QNX real-time operating system and Photon windowing system that deliver technology across an enormous range of applications, ranging from toasters to chemical processing plants. This event, co-sponsored by the Faculty of Mathematics and the infraNET Project, is open to the general public. A reception will follow in the Great Hall of the Davis Centre. Registration is requested via http://infranet.uwaterloo.ca or by calling 888-4567 ext. 5611.

## Spermatikos Logos \#1

Six friends got together one evening and decided to play tiddleywinks. Each of them played a different colour: green, red, orange, blue, purple, and yellow. They all had different scores ranging from 105 to 160 . The points are awarded 10,15 , and 25 depending on where the chip landed on the board. There's no score for not hitting the board. They all got 10 chips. The six people were named Amy, Beth, Calvin, Dave, Edmund, and Fiona. Their last names, in alphabetical order are Kennedy, Lincoln, McGuinty, Nichols, Orville, and Patterson. Find each person's full name, the colour of chip they used, the order the played in, and their final score.

1. No two people got the same score.
2. Everyone scored 25 at least once.
3. The six people who played were (in no particular order) Amy who played blue, the person who never missed the board but didn't get the high score, the person who played with orange, the person who scored 110 points, the guy who played last, and Nichols who played first.
4. Dave did not play last, and was not green.
5. Two men had the highest and lowest scores.
6. Beth is not Ms. Patterson.
7. The greatest difference between two consecutive scores is 20 points.
8. Kennedy played after Orville and scored more points than Fiona.
9. Two women played first, followed by two men.
10. Orville scored 15 points less than Amy, who in turn scored fewer points than Edmund.
11. All three women played with primary colours.
12. The sum of all the scores is 755 .
13. The order of play was Fiona, the person who scored 125 points, Lincoln, Calvin, the person who used the red chip, and McGuinty (who played with purple).
Be sure to drop off your solution to this logic problem in the BLACK BOX or email it to mathnews@undergrad by Monday, June $8^{\text {th }}, 1998$. One correct entry will win a C + D gift certificate.

Gigi Garbett \& Andrea Knowles

## 50 Years Ago in mathNEWS

Some guys on a farm in Waterloo briefly entertained the notion that they should publish a newsletter for mathematics students. When the found out that there weren't any in Waterloo yet, they went back to farming.

continued from page 11
out of your hectic schedule to guide and counsel us! We will miss yon immensely! I think our best memories of you will be the MGC Pizzs day stunt (RE: Canadian!) and the alleged church in Quebec that caved in during the ice-storm...(RE: CAS 462 class), Iowa jokes, and most of all the "little weasel in a wood pile" comment...

Professor Willmot: a.k.a. the inspiring mentor of the ActSci crem! Thank you for your super incredible patience, understanding, kind words of advise and most of all, for motivating us! I think our best memory of you will certainly be the K-S statistic test (RE: ActSc 431) - or is it the Smirnoff test??? We certainly will miss you as well a complaining to you...!

Professor Reynolds: Thank you for your incredible patience, irspiring little talks, for motivating us and most of all for your 'elastic' office hours - we really appreciated the tonnes of extra hours you put in during our last final exam. I think our best memory of you will be the one, the only colourful Survival Models lecture notes - and yup! those diagrams (RE: Chapter 9) and the "little old lady working down in the basement" joke...

Professor Sharp: Thank you for the stimulating Pension's class, the sound counseling and advice. Most of all thanks for guiding us through our Actuarial Program!

Professor Panjer: Thanks for getting us through ActSci 331, the amusing stories of your cars, your inspirational talks in and out of the class rooms (RE: ASNA meetings, and the ACTSCI club events).
(Like I said these are some of the people that I can think of right now ... so this is by no means a complete list!)

Sure, at the time we were enduring the intimidation and the pressures, we despised you all for dominating our lives with work, for missed camping trips, T.V. shows, Hallowe'en parties, movies, the Olympic games, long-weekends at the cottage, celebrating our birthdays with a final exam, long hours in the lab, all-nighters, cramming our 3-WHOLE DAYS of reading days with work, so much so that we may as well be in school - the list is never ending !!!

Today, we grudgingly admit that you were right and we were wrong! We stand corrected!

So, on behalf of the graduating class of 98 , I would like to express our profound 'thank yous' to all of you who contributed to the most important years of our lives. We feel extremely privileged and fortunate to be bestowed with your wisdom and rich knowledge. We are glad that you intimidated us!

We are proud to be Mathies! We are proud to be co-op Mathies! Most of all, we are extremely proud to be graduates of one of the BEST universities in North America, the University of Waterloo. THANK YOU.

Jackie Sankardyal

## A Choice

I'd like you to take a minute to think about how horrible your life is right now. Yah, you. You know what it's like being a Mathie, don't you? Shamelessly attending disgustingly boring classes, day after day. Putrid computer labs. Work Term Reports. 6th floor MC. Greasy hair. Waving goodbye to CS240 lectures as they go straight over your head and out the window. The Comfy Lounge (?!?!?!?!?!?!). How much more horrible will this summer get?
But wait ... we have our health; we're not starving; we have shelter (ok, for this article, the set S, shelter, will include such elements as the Comfy Lounge and the Mole floors in V1, but never outside this article.) Now let us find the weight function where the weight of each subset, w(blah, blah,(4n-3??), blah, Fibonacci Numbers, blah, blah), corresponds to the most disgusting place to sleep in the set, i.e. w(Comfy Lounge, SLC, King Street sidewalk) $=$ well, this is a tough one and I'll leave it for you to decide which is a better place to spend the night for free.) Hey, we can even go out for beer at some very lucrative establishments surrounding our campus once in a blue moon. Morty's = Math. What more can I say?
Now think about when you graduate. Given Waterloo's wonderful co-op system (no, I'm not being sarcastic; how else am I supposed to get a job??), the fact that we can blow away those pissy American schools right outta the water, and of course, the infamous "B.Math '9? University of Waterloo" sitting high on our resumes, the future does look pretty bright for most of us that will survive. Sure, there's lots to complain about here and the Chip Wagon in V1 is pretty a lame excuse for the Village Grill, too. But, we'll probably be able to live comfortably, with a reasonable amount of happiness for the rest of our lives, and we will probably never give a second thought about how wonderful our lives are compared to the rest of the billions of people on this planet.
Now let me ask you to take another minute to think twice about your life, to think about how very different and sad your life would be were you not living here and now, at this place, at this time. I had the opportunity to think about this on Monday night as I watched the CBC late evening news. Before me flashed images of hundreds of starving, sick, helpless people living in Sudan (if you can call it living) caught in the midst of a civil war. Innocent people whose only fault was that they were born at the wrong place, at the wrong time. After two years of famine, all that is left to eat are berries and nuts from the forests. Relief efforts are failing because the Sudanese government is only allowing a small number of supply shipments into the country. The people are merely pawns in the government's struggle to quash the rebel forces. The images are very haunting and saddening. One that I will never forget is that of a woman, holding a small baby, both looking very tired and very ill. With a hopeless look on her face, she tells the reporter that she knows the end is near for her child.

We have complete control over our destinies, to a certain extent. We are capable of deciding what is best for ourselves and running our lives the way we want. We choose to study here at Waterloo; we choose to expand our minds; we choose what to eat and when we want to eat it; we choose how we spend our spare earnings and where we will live. In short, we choose to live
our lives the way we want to live them. The people in Sudan don't have those choices. They have no choice.
We also have another choice. We have the choice to provide help, not only for people in Sudan, but also for people all over the world who are victims of famine, poverty, oppressive governments, etc. My intent in writing this article is not to force your guilty conscience into grabbing your checkbook and giving out money to relief organizations. I know that many of us would not be here were it not for OSAP, and I know that many of us will be spending some time after graduation paying it back to the government. My intent in writing this article is to ask you to think about your future and about the tremendous opportunities and benefits that we as Canadians have. We truly are a fortunate group of students here in $U(W)$ Math. I'd also like to ask you to think seriously about someday contributing to relief funds, volunteering to help those less fortunate in our community, perhaps sponsoring a child, or maybe even becoming a Big Brother or Big Sister.

Maybe not now, maybe not right after graduation, but hopefully, someday you will have the means to improve the quality of life for someone else. I hope that you will not let the opportunity pass you by.

It may mean the world for someone else.
Alex Hristov

## mathNEWS Trading Card \#2

Collect them all!

# Crap 

## Theorem of the rate of change of time with respect to time

The rate of change of time, with respect to time is inversly proportional to the amount of timepassed. The differential equation governing this phenominon is: $\mathrm{dt} / \mathrm{dt}=\mathrm{k} / \mathrm{t}$


The higher the value k is, the slower time progresses, while the lower the value of $k$, the faster time progresses.
Here are some conditions that effect the value of $k$.

1. What class you are currently in. (i.e for physics, $k$ is low, while for $\mathrm{rec}, \mathrm{k}$ is high).
2. Sobriety, the less sober a person is, the higher the value $k$ is, and thus the faster time passes (think about the last time you drank alot, time passed by soo quickly, you probably don't even remember all that happened
3. Professor currently lecturing you. The more ums, uhs, etc, the lower the value of k is. Where as the more references to beer, sex and drugs, the higher the value of $k$ is.

## More Crap

There are many special circumstances, where $k \rightarrow 0$, such as:

1. At the dinner table, and you have to tell mom and dad that you got your girlfriend pregnant.
2. When you're in the back of a police cruiser.
3. Lost your "Way-to-drunk-to-be-alone" friend somewhere outside revolution.
4. mathNEWS production nights.
5. While waiting for a copy of Starship Troopers to arrive only it doesn't so movie night gets screwed royally by the delivery service, which promised the damn film by 6:00.
Similarily there are situations where one would like the value of
$k \rightarrow 0$ yet the damn thing won't.
6. Your girlfriend's father is chasing you with a steak knife because you got his daughter pregnant.
7. You drop your pants in front of your highschool cafeteria (I swear it was an accident).
8. Those wild mathNEWS parties, where you spend half the night with your head in the toilet bowl.

As you can see, there are different situations, where different values of $k$ are desired, and given the specific conditions, one can solve the differential equation $\mathrm{dt} / \mathrm{dt}=\mathrm{k} / \mathrm{t}$ to find out that k always chooses a value such that it screws you in the worst way possible. Refer to diagram 2.


Some people attempt to avoid having $k$ screw them over. Most of the time, this is impossible. Whatever you do, do not, I repeat do not do the following in an attempt to change $k$.

1. Sniff whiteout, glue, etc.
2. Eat mouthfulls of fisherman's friends cough medicine.
3. Bang one's head on those stupid "Bang head here for stress relief kits" on all the professors doors.
4. Get your girlfriend(s) pregnant ...

Needless to say, have a good day, and don't let $k$ fuck with you
Peter "I made up all (actually most (well O.K. only a few)) of the examples" Lizak

## mathNEWSquiz \#2

## The Squiz Guaranteed to Not Cause Bad Breath

Howdy, folks!! How's it going today? Looks like my first Squiz was a little harder than I thought-I only received 4 submissions. (Bither that, or there are a lot of you that don't want to admit to watching pro wrestling ...) Anyways, here is that lovely moment, when we announce the solutions to Squiz \#1:
Music Lyrics: 1) TLC, "Waterfalls"; 2) Moxy Fruvous, "River Valley"; 3) Billy Joel, "River of Dreams"; 4) Guns 'n' Roses, "November Rain"; the overall theme was "wet" songs.
So Long, Jerry: 1) "Chunnel"; 2) Jon Voight; 3) Morty; 4) Vandelay Industries; 5) Dolores.
Bret Hart: 1) Calgary; 2) Jim "The Anvil" Neidhart; 3) 5; 4) Saskatoon; 5) Ric Flair.

Movie Quotes: 1) "Planet of the Apes"; 2) "Stand By Me"; 3) "Star Trek: First Contact"; 4) "Jurassic Park"; 5) "They Live".
So, here are the people who submitted solutions, along with their score: Corey Burns scored 4 points; Craig Erickson and Jim "Hitman" Martin each received 11 points; and the winner, with an impressive 17 count, is Jason Smulevitch!! Congratulations, Jason! Your prize can be picked up in the MathSoc office.
And so, once again, it is time to play the Squiz!!

## Music Lyrics

1 point for song and artist, and 1 point for the overall theme

1. "Together we can make it to the end of the night Your love is like a shadow on me all of the time. I don't know what to do; I'm always in the dark Been living in a powder keg and giving off sparks."
2. "We was making love when you told me that you loved me I thought ol' Cupid, he was taking aim
I was a believer when you told me that you loved me And then you called me someone else's name."
3. "Wearing nothing is divine

Naked is a state of mind
I take things off to clear my head
To say the things I haven't said."
4. "I jump on you, you jump on me

You push me out, and even though you know
I love you, I'd be inclined
To slap you in the mouth."

## Israel

1. When was the state of Israel created?
2. Who was the first Prime Minister of Israel?
3. October 6, 1973, was the date that this war was started by Egypt and Syria. Name this war.
4. What city is called "Al-Juds" by the Arabs?
5. What group claimed responsibility for the Munich Massacre on September 7, 1972?

## Children's Books

I'll give you the first line and the author; you give me the name of the book

1. "If you want to find Cherry Tree Lane, all you have to do is ask a policeman at the crossroads."-P. L. Travers
2. "All children, except one, grow up."-J. M. Barrie
3. "The Mole had been working very hard all the morning, spring-cleaning his little home."-Kenneth Grahame
4. "This is George. He lived in Africa."-H. A. Rey
5. "It was seven o'clock of a very warm evening in the Seeonee hills when Father Wolf woke up from his day's rest, scratched himself, yawned, and spread out his paws one after the other to get rid of the sleepy feelin in their tips."Rudyard Kipling

South Park
Give the names of 5 celebrities who have been badly impersonated on "South Park."
1.
2.
3.
4.
5.

Well, that's all for this issue. Good luck to all. Remember that your solutions will be due by $6: 30 \mathrm{p} . \mathrm{m}$. on Monday, June 8. Solutions can be submitted by placing them into the BLACK BOX, or e-mailing them to me at cjmcguire@undergrad.math. Happy Squizzing, all!

Chris "The Subliminal Squizmaster" McGuire
John "The Pseudo-Expert" Swan

## gridCOMMENTS

Yo, pal! Solve this!

Did y'all notice the mistake I made in the first gridWORD? Well, I posted it on the newsgroup last week in case you didn't notice or hadn't noticed or didn't care. In the future, check uw. mathnews or uw. math.mathsoc to see if I have posted any corrections.

And now ... the results. I had 3 submissions for this one. The Comfy Psychos and Johnny Blaze \& Shaft both had an error in their submissions. But Sko \& Lisa not only caught the error and informed me, but also had everything else correct so you win this week's prize. Stop by the MathSoc office to see whatever prize the editor felt like givin' ya.

Well, as always, nothing to explain this week. Yet another straightforward gridWORD. Submissions are due by Monday, June 8 at $6: 30 \mathrm{pm}$ either in the BLACK BOX or email mathnewsQundergrad.math. Good luck!



## Grid Clues

## Across

1. Thespian
2. Pooch
3. Actor Lugosi
4. "Hot $~$
5. "Only Time Will Tell" band
6. Dry
7. " - Ridge "; Eastwood movie
8. Ceremonial act
9. Gas company
10. Breathable substance

Emerald Isle
Fast jet
An elected rep. (abbr.)
Ranger, for one
Zilch
8. Subtraction ans.
29. Point
33. Culmination
35. Quarrel

Whack!
. Corrosive stuff
Headgear
Baseballer Boggs
NBC late night fare
Criminals
Measurement prefix
43. To hit repeatedly
45. Mode lead-in
46. American science school
47. Diminish
49. Spy org.
50. Compass direction
53. Bridges, for one
54. A really, really long time
55. All tied up
56. Common metal
58. Obligation
61. Ernie's pal
62. Formed by a glacier
63. Clean off
64. Lots
65. Batting average, for one
66. Fish-eating weasel

Down

1. Residue, lots of
2. Board game
3. You're finished
4. Another, in Spain
5. The next 3 after the 17 th
6. Newsperson Shriver
7. Addict
8. Aunt from Argentina
9. Airplane action
10. Empty
11. Part of HOMES
12. Set on fire
13. Kind of drink
14. Common sporting object
15. Not out
16. Combine
17. Picks up
18. Flanders, for one
19. Singer Ross
20. Birthstone
21. Extinct bird
22. Lady sheep
23. Facial problem
24. Drug form
25. Peg
26. Snake
27. Humourist
28. Pro team with history of bad uniforms
29. Military abbreviation
30. Years in a score
31. Prefix for small
32. Help group (abbr.)
33. Celestial object
34. Happening
35. Awareness
36. "Come on in!"
37. Brought to life
38. Actress Thompson
39. Give off
40. Big Blue
41. Musician Chris
42. Grain
43. Pic and op lead-in
