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Volume 40 Number 8


## LookAhead

## Prezz Sezz



## mathNEWS Subscriptions Coming

As the term draws to a close, mathNEWS will be accepting orders for subscriptions once again. You, too, can join dozens of other math students and have mathNEWS delivered to you on your work term (or elsewhere) thanks to our Worldwide Subscription Service. Just watch for more information at MathSoc, or watch for details in mathNEWS. Subscriptions will cost $\$ 3.50$ ( $\$ 4 \mathrm{U} . \mathrm{S}$.) for the summer term.
mathNEWS makes great reading during those work terms in Toronto, Ottawa, Pinawa, Palo Alto, or even Finland. mathNEWS subscriptions are also a great gift suggestion, and are even a good way to find out what's going on in Math after graduation.

Well, it is finally end of term. Everyone can now count the number of assignments that have to be done on their own hands. But you can also count the number of days to your exams. Spring is in the air, the snow is almost gone. I never got a chance to hit the slopes, but I did get down to Fort Liquordale for a week, something every university student should do. It's time to get the motorcycle out and take it for a spin. I've been driving bikes now for 6 summers, and it always makes summer's special. If you haven't tried, you should. You'll be hooked forever.

To those of you who are graduating-Congratulations and Good Luck. Farewell Tom, Lida, John, Sheila ... I hope you leave Waterloo with good feelings and memories Waterloo.

To those of you who will be back in the fall-have a great summer whether you're travelling, working or don't know yet. Hope to see you next term involved in MathSoc. There are always plenty of opportunities and it is a great experience.

And now for some appreciation: I would like to thank everyone who helped out with MathSoc this term. As this was my first of two terms as President, I needed the help and support. It definitely is a challenge but worth every cent of effort. Thanks to Brett for showing me the other person's point of view (even though you drove me crazy so many times). Thanks to Lisa B. for lightening my responsibilities. Thanks to Bob for resupplying and redecorating the office and good luck in your final term. Thanks to Dave and Paula for publicity Thanks to Brian for keeping the finances in line, even having some left over for Fall 86. Thanks to Lisa S. for the social events and for your effort in orientation (O-86 looks to be a great success). Thanks to Sue, Cyril, Lida, Ilia, Tim for their efforts in MathSoc. Thanks to all those I haven't mentioned yet, I haven't forgotten you. I just ran out of space. Lastly, to Kellie our office secretary, we at MathSoc wish you our best and hop you enjoy your future endeavours. I hope we helped keep your spirit young.

Signing off

## Watpubs: Spring '86

## Toronto: call 591-1650

- May 7th at The COPA, Yonge St. \& Yorkville, \$2 cover for buffet
- May 14th at D.J.'s, College St. \& University Ave.


## Ottawa: call 230-7775

- May 8th at Molly McGuire's, York St. \& Sussex Dr
- May 15th at Stoney Monday's, 62 York St.


## Montreal: call 849-0728

- May 7th at The Annex, Bishop St. above St. Catherine
- May 14th at The Old Munich House, St. Denis \& Dorchester


## Calgary

- May 8th at Polo Club, 11th Avenue
- May 15 th at Cotton Club, 3rd Ave \& 2nd St.W.


## Edmonton

- May 8th at People's Pub, Redford Inn on Whyte Ave.
- May 15 th at Alli Katz, 105 th St.

If you are interested in running or helping to run any of the above Watpubs please call MathSoc at ext. 2324 and leave a message for Brett Martin.

## CS Curriculum Committee News

Hello, I am your undergraduate rep on the CS Curriculum Committee. I am also on a subcommittee reviewing the first and second year CS courses. This subcommittee consists of Professors Booth, Dyck and Munro, grad student Victor Klassen, and myself. We met a number of times this term, and have prepared a report to be reviewed at the CS faculty retreat in April.

The current first and second year courses are showing their age. Some of the material is outdated, and there are problems when courses are taken in different orders (CS140 M0 or M1 before or after CS180 M0 or M1, etc).

The subcommittee's report recommends four new CS courses and four new laboratory course corequisites replace the current first and second year CS courses. The labs (at least the first year labs) would be modeled after first year science or engineering labs - short, self contained labs which teach computer skills. Specific programming languages would be taught in the lab courses.

We also recommend a full-time coordinator to oversee the day-to-day operations of the labs, and recommend instructors be assigned "in charge" of a course for at least one year, to insure stability and continuity.

Copies of the report have been left in the Computer Science Club office (MC3037) and in the MathSoc office (MC3038). After the report is reviewed in April it is the subcommittee's intention to invite comments and suggestions from anyone interested. I can be reached through the Computer Science Club.

Jan Gray

## Attention : Class of ' 87 !

Is anyone interested in a YEARBOOK for next year's graduating class? If you're interested in helping out, or have any suggestions, please talk to Barbara Palmer or Wilma van der Veen, or leave your name \& summer address in MathSoc. Production will probably start this summer with the other stream, so if you'll be in Waterloo, we'd apnreciate your help.

## MathSoc Office Hours

During the exam period the office will not be opened for regular hours. However there will be days when staff may be in the office so you can get all your frantic photocopying done and buy some of the neat paraphernalia that we offer. Come in before classes end and save yourself a lot of heartache.

## Math Grad Ball '86

I lived a miracle in one lost weekend, a time none of us could spare, but nobody dared miss.

I saw dreams and anticipations filter through the ballroom, and take the presence of restless couples in nervous (yet charming) apparel.

There was the buffet, and laughter, and speeches, and prizes. There was a feeling of unity and purpose in our being together.

We toasted success, and love, and friendship. We drank to our health, and to each other, while the band played a medley of uptempo rhythms and tender moments.

Yes, the dreams came alive for a few fleeting hours, as we danced and dined under a starlit glow of warmth and stolen kisses.

And by the time it was over, the spirited post-ball parties and champagne breakfasts finally giving way to sleep, we had gathered a weekend of memories to cherish the rest of our lives.

Your Roving 4B Reporter

## WATSFIC

## 10th Anniversary Events

There will be a video night on Wednesday April 2nd, starting at 6:00pm in the Math C\&D lounge.

There will be a games day (and maybe evening!) starting at 12:00 on Thursday April 3rd in room 3003 of the Math and Computer building. Bring your own game or sign out one from WATSFIC's games library. House rule is no FRP games, but any thing else goes.

## UltraClassifieds

First Toronto Watpub now at The Copa on May 7th. (Lineups were too long at the Jolly Miller.) $2 \$$ cover for buffet; come early and have a free dinner!
So Cyril, how did you like the Anne Murray tape you borrowed? Karin.
Karin, you are going to wish you never asked that. Cyril.
You've got me really scared Cyril. Karin.
You should be scared, Karin; kiss your cat goodbye. Cyril.
Thanks big $D$, for the noise to wrap around my head.
Flowers for NER, GT, MMG, PDK, and all the others who made it a great term - TAI.

COMPUTERS \& SOFTWARE

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KING CENTRE, KITCHENER

## mathNEWS Questionnaire Results

A big Thank You goes to those folks for responding to the mathNEWS Questionnaire last issue. We've counted the results so far and we hope to keep the results in mind for future terms. We've even gleaned some useful data on various mathNEWS stuff. Please send in your questionnaire if you haven't done so already, and we'll count that, too.

Most people didn't mind the advertising we did this term, but some serials in general were disliked. As in previous terms, mathNEWS readers like us for our humour.

Finally, in the words of one respondent, "O.K.".

## Dear mathNEWS:

Three cheers for the Former Editors, Senior Staff and the Guest Editor. mathNEWS should be a forum for Math students (and others) to express their opinions and to receive responses from their peers. Of course, opinions on topics which are not of interest to most students are not really needed, those in the areas of drinking, driving, social issues, etc. are close to all of us. It is important that we be able to openly express these opinions in such venues as mathNEWS, the Imprint, etc.

To Slash himself, I have this to say: You are wrong. It is important that we question the authorities when they exercise the power we have given them. That's democracy. But when we blatantly ignore the rules they provide for us just because we think they are wrong, that's anarchy. And anarchy is stupid. We have a lot of freedom in this country, but if we ignore the rules that we do have, we will lose the freedoms that we have as our society decays. We will never have true freedom in this country if we disregard the responsibilities that freedom brings with it. Question authority, but never by disregarding it.

Thanks. Bill Nickerson
Dear Editor:
I was quite disturbed when I read last week's letter (issue five) encouraging people to make fun of me. Please try to understand my situation.

I was Vice-President for four years and nobody knew it. Then I lost in a landslide in 1980 as Carter's running mate. Then I did the same thing four years later all by myself. I'm starting to wonder whether it's all worth it. I've decided to move to Africa and live among the Bushmen and I wont be seeking the Democratic nomination in 1988. Jesse Jackson can have it for all I care.

Walter Mondale

## A Final Word From The Editor

Well, hasn't this been a good term for mathNEWS? I recently went over some back issues and it seems that we just keep getting better each term. Of course we had a lot going for us this time around. I'm talking about our great (though occasionally mutineering) staff. For a large part of our staff, this is their last term. All of us here at mathNEWS wish them the best of luck in the future. As for the rest of you schmucks, good luck on your exams, have a good summer, and we'll see you in the fall.
dan schnabel

## Another Last Word

After this term, mathNEWS will lose some of its members due to things such as graduation, myself included. Thanks are due to all those wild and mild mathNEWS people (and other UW people) that I've met over the years, from ' 81 to now. These years with mathNEWS have sometimes been hair-raising, mind you, but it was good experience and it was worth it. You, as a reader, can also help out with mathNEWS next term (and have some free pizza on production nights). Otherwise, most of my sentiments are the same as Glenn McFarlane's and I won't repeat any of these here.

It now appears that it is a mathNEWS tradition that the users of various pseudonyms expose themselves when they graduate, or otherwise leave UW. In that case, I've been responsible for such pseudonyms as Not Young Frank Einstein, and Woody Tobias, Sr, and likely a few more. (No, I'm not Scooter!, though; he took off from UW long ago).

Have a good summer, everyone, wherever you go. And thanks for reading us over the years.

David Leibold

## McFarlane's Exit Line

I don't know if this has ever happened before, but this term will see a few diehard mathNEWS types finally push out of here, after a long $42 / 3$ year stint. As this includes yours truly, I would like to take the podium one last time to deliver a few thank you's long overdue.
mathNEWS has been good for me. I learned a long time ago the value of extra-ciricular activities, and found this paper to be a great emotional outlet. As long as I was stuck here for so long, I figured I might as well make the most of it.

And that's something I'd like to mention, while I have the floor Please, people-I beg of you-live a little bit while you're here. 5 years is too long a time to just grab for the diploma. The most valuable possessions this university gave me are things quite intangible.

But enough lecturing. On with the thank you's, in no particular order. Hats off to the following people and places, for making university life a lot more bearable.
"The Gang" (you know who you are). Love you all.
The turnkeys (the greatest DJ's in the world), for the coffee.
The C + D, for the doughnuts.
The Wharf, Stanley's, and Mother's. Good food at a good price.
My barber, for not asking many questions.

- Moira, and Jim, for always being there.
- Heather, for carting me home once in a while.
- ML and Rob, for making Ottawa an even nicer place to work in.

Liz, for everything and then some.
All my roomates over the years, for putting up with me.
The mathNEWS staff, for same.
Any grmcfarlane fans out there.
Last, but not least, mathNEWS supporters in general. Without you, it wouldn't have been worth it.

I think that's about it. Hoppefully, I didn't forget anyone. Once again, thanks, people, for letting me try to entertain you these past few years. Take care of yourselves. I'll miss you.

Glenn McFarlane

## Prof Quotes

Well, this is the last of this term's batch of quotes from profs. We hope you enjoyed reading them as much as we have presenting them. If you're back here this fall, be sure to be on the lookout, because sometime, somewhere, when you least expect it, your prof will make a memorable statement worthy of publication.

The only fly in this pot of ointment is that you need tables.
Prof. Bennett, STATS 230
And this is exactly where I got stuck last time.
Dave Easton, PMATH 340
That's a good thing to remember in my lectures. $m$ is always equal to $n$.

Noise can't stay pink forever
John Baker, MATH 332B
J Vanderkooy, PHYS 453
There ought to be one or two things that you remember from university. Well, maybe one thing.

Dave Easton, PMATH 340
There's no point in lecturing this material if it doesn't make any sense.
C. Small, STAT 333

Let's see, ... there are about twenty-six different letters in the alphabet.
G.H. Gonnet, CS 340

Acknowledgement is not the longest word I know, but it is the longest one I can remember.
G.H. Gonnet, CS 340

This may not look like a polynomial, but let's notice that it is.
K. O. Geddes, CS 375

That's why I didn't want to teach this course - I'm so sick of differential equations.
M. Snyder, MATH 230B

Shift this vector slightly into the fourth dimension.
W.J. Gilbert, MATH 144b

This is called a Moore machine in honour of Moore.
K. Culik, CS 369

Well, That's a sort of worst-case roundoff type thing happening.
K.O. Geddes, CS 375

Every so often engineering examples are good for you, a humbling experience, sort of like vomitting on yourself.

Prof. McGee, AM 340
Oh come on! It's only a concept. Don't be so awkward at this stage in your life.

Roger Ramshaw, EE 222
Are you spying on our class? Oh sorry, I didn't recognize you.
P.L. Kannappan, MATH 230b Don't blame me, I'm just a simple pole in a complex plane.

John Baker, MATH 332b It doesn't really mean something. It's just one minus something that means something.

Gord Willmot, ACTSCI 232
You can't take an arbitrary object, say an orange, and take it to the minus one power.

## K. Rowe, MATH 244b

I'm pressing as hard as I can on this chalk and it still looks like I'm a 95 year old woman. Just being a woman would be bad enough; too bad they are allowed to vote. This is called "How to make friends and influence people."

Ross Honsberger, C\&O 380
The good thing about old people is that they die.
R.D Lambert, SOC 101

My wife thinks I died five years ago - little does she know.
Ross Honsberger, C\&O 380 Is this procedure clear? It's highly emotional, I know.
J. Froese, MATH 332b

Skip this. I don't know what I'm doing.
Gord Willmot, ACTSCI 232

Wednesday we'll be looking at Turing machines with psychological
disorder.
Ian Munro, CS 360 If you were programming for the space shuttle you don't want a search to take too long otherwise it may blow up!
G.H. Gonnet, CS 340 We don't do error estimation in this course... maybe I'll do it anyway to piss you off.

Michel Devine
We have a system of three partial differential equations. Yuck! I'm not supposed to say that, I'm supposed to be the expert at partial differential equations.
D. Siegel, AM 365

I like Pulleyblank.... I even like his wife.... But I don't know what he sees in that woman he's running around with.

Prof. Honsberger, C\&O 380
The process counter is where the finger currently resides.
Romas Aleliunas, CS 435
It's a promiscuous automaton - it accepts all inputs.
I. Munro, CS 360

It takes longer to state it than to prove it. This is very common in
advanced mathematics.
G. Thompson, MATH 240a And that's the answer which I will write in a particularly sexy manner.
P. Ponzo, AM 260 And then you measure $x$ from the K-Mart position. P. Ponzo, AM 260
$\begin{aligned} & \text { If you wait an infinite length of time, well, infinite minus half an hour } \\ & \text { or so, }\end{aligned}$ or so,....
P. Ponzo, AM 260 I originally prepared this lecture for MATH 738, but I think you'll enjoy it.
K. Rowe, MATH 244 b

Lets take an example: Theorem; a theorem as an example is a rather interesting idea.
K. Rowe, MATH 244 b

Here's a better example, it's not so obvious.
K. Rowe, MATH 244b A guy by the name Alvy Ray Smith - it's not important that you know that - I just like to drop his name.

Dan Field, CS 488 By adding disjunction, you create the opportunity for waffling.

Randy Goebel, CS 486
Engineering approximation: $2+2=5$, for large values of 2 .
Prof. Quintana, EE 480 Hitler was rumoured to be in the chronical stages of syphilis at the later part of World War Three.

Frank Reynolds, MTHEL 305b I wouldn't want you to think that I was trying to sexually arouse you!

Valerio Francescain, CS 335 It's not true that faculty members are leaving for the south to become stand up comics.

Randy Goebel, CS 486
I am afraid it will end up in mathNEWS, a fate worse than death.
Dr. Morris, CS 478
The good ones never get into mathNEWS.
Prof. Honsberger, C\&O 380

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University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1 or to userid mathnews(awatdcsu on USENET.
Editor: The society for the improvement of dan schnabei


When we last left our heroes, they were being abducted by Slash Sinatra and his evil henchmen in the Slashmobile (after crashing into it), to be fed to the loan sharks at Canada Trust. Using his CB, Sinatra called up the Canada Trust manager known as the Liquidatory Official Now Eliminating Super Heroes, Also Responsible for Killings.
"Hello, Lone Shark? Sinatra here. We've captured the Dyslexic Demons, gnar, gnar! Get the fishtank ready, gnar!"
"Certainly, Sinatra. I'm quite pleased. Do you think we should blindfold these Diophantine Do-gooders before we feed them to the fish, or don't the fish appreciate fine cuisine like Peeking Duck?"
"We'll find out shortly, gnar, gnar! The Dyspeptic Doodahs' days are denumerable!"

But just then, Watman regained consciousness, played back the last minute of conversation on the Watwalkman and interrupted, "About all this D-this D-that, did you realise that Sinatra professes to be a Drunk Driver, Lone Shark?"
"What! Is this true, Slash? Harumph! I'm calling your insurance company now and they'll retroactively raise your rates so you can't possibly pay off the debt you owe us on the Slashmobile. Well, I guess we'll have to repossess that as well, harumph!"

And without further ado, the Lone Shark pushed a button on his desk that caused four simultaneous blowouts to occur on the Slashmobile. Slash and his henchmen stuffed our heroes into the trunk and ran away before the Lone Shark could do more nasty things to them.

Within minutes, a policeman came by. "Ech! A blue Grenada, all dented and with four flat tires! I wouldn't want to inflict this eyesore on anyone." He was true to his word, and called up a tow-truck which took the Slashmobile to the nearest car crusher, "C. \& Co.'s Car Compacters." Meanwhile, in the trunk...
"Holey Toroids, Watman! This trunk's full of useless junk! What would Slash Sinatra need with all this?"
"That's not just junk, Duck, that's most of the front end of the Watmobile! Perhaps we can construct something out of it to escape from our predicament."
"Wholly Whoudini, Watman! You mean like on the A-Team?"
"Yes, Duck. Now hand me that radiator hose, and hold the Wattering ram still over there so it doesn't bruise my forehead any more..."

But before they could think of using the WatLaser in the left headlight to burn a hole in the trunk, or of using the WatPix to open the lock, the Slashmobile had been placed in the car-crusher at C \& Co.'s Car Compacters. The proprietor, hearing strange noises
emanating from the Slashmobile's trunk, sent his henchmen in to investigate.
"Oh no, not again, Duck! Why don't the good guys ever get henchmen? It's terribly unfair!"

The henchmen quickly tied Watman and Duck to the roof of the car, and the owner came to speak to them while the car-crusher was slowly closing its iron maw on them..
"Wholly topologically equivalent objects, Watman!" Duck interrupted, "we'll be continuously deformed into a parallelepiped of length epsilon!"
"Shut up, Duck," the proprietor commanded, "You're wrong. After that outburst, I've just decided that you're too silly to be worthy of gaining a deep insight into the Contraction Mapping Theorem." Watman mused that for once, Duck might have been useful.

The iron jaws ceased their imminent convergence on the Slashmobile.
"I have a better fate for you, chuckle, chuckle: Death by Nonsensification Overdose! What's the difference between a canary?"

Perhaps Duck wasn't so useful after all, Watman mused some more as his cerebellum tried to parse that last question.
"One of its legs is both the same! Chuckle! Chuckle! What's yellow and goes click-click? A ball-point banana! Chuckle!"

Watman and Duck were already beginning to succumb. "Why is a mouse? Tee hee! The higher, the faster! Get it? Chuckle!" "No! Stop it!" Watman cried between fits of hysterical laughter. Duck managed to exclaim in a fit of sanity, "Is this what AI projects say, that causes CS grad students to only come out at night?"

The torture continued, turning our heroes' minds into something approaching Village french toast marinated in salad dressing for two weeks inside a cafeteria paper napkin dispenser.
"No! Stop it! You can't do this!" Watman screamed, as if in a CS 140 lecture.
"Oh yes I can, chuckle, chuckle! I could even turn your minds into something approaching Village french toast marinated in salad dressing for two weeks inside a cafeteria paper napkin dispenser. Do you know who I am?"
"Oh no... it's not...! It can't be!!" Duck burbled.
"Yes, it is! I am the Chuckler, and I'm writing this story, and you're a pitiful little character, so there! Slartibart fast?"

And with that final piece of silliness, they expired.
Will Watman turn out to be a Time Lord and regenerate into Dirk Halfspeed? Will there be another issue? Will I stop asking these inane questions? Stay tuned (possibly forever)!

Ha ha ha ha ha ha ha ha, ha ha ha ha ha ha ha ha...WATMAN!
The Chuckler

## Yet More Results

Response to the "Everything Questionnaire" was substantial, with 93 people replying. Of these 65 were male, 23 female and 5 were uisure. Also, the following results are biased towards mathNEWS readers and/or people who love to fill out questionnaires.

If there had to be a Computer Fee, $61 \%$ supported charging the fee per CS course. A simple majority ( $79 \%$ ) would not refuse the Oktoberfest Beauty Pageant on-campus space. Concerning the 3rd floor lounges, $74 \%$ feel there is no need for a smoker's lounge.

According to $55 \%$ of the replies, the Bombshelter should be kept as is. Concerning Fed Hall, $79 \%$ prefer a DJ over a relatively unheard-of band. On a lighter note, Chuck, the manager of Fed Hall, intends to introduce Schnitzel Fingers at Fed Hall. Forty-two percent of the respondents said they would buy them if they were available.

More complete results, with commentary, are available in MathSoc.

## The Surfin' Einsteins The Big Escape A True Story by W. Flaghoople

Since the last episode in this series was accidently deleted, and this is the last mathNEWS of the term, I will fast-forward to the thrilling conclusion.

After landing on Easter Island in Mary Tyler Moore's private Lear jet, Mary and the Fabulous Surfin' Einstein brothers set out to find the person they accidentally teleported there in a nuclear accident. However, what they didn't know is that said person is in actuality the diabolical Miss Vivian, a CLA agent sent to assassinate Einstein's famous grandchildren.

The evil Vivian used the Canadian robot arm of her personal space shuttle to dig a pit, and trap our heroes by luring them into the pit, then dropping a huge stone monument on it.

All appears hopeless as they wait for the tide to come in and fill up the pit.

вово: I don't believe we fell for this one,
FRANK: Looks like we'll never do all the things we dreamed of.. lou: Yeah, boys, this is it.
MARY TYLER MOORE: Oh noooo... I never got the chance to make it in television again, and now I'm going to drown with a bunch of teenage freaks.
SONNY: Hey, watch it, lady! We ain't freaks.
JOEY: Yeah, mmph mph freaks... uh.. yeah... (takes drink of his beer)
Meanwhile, back at the White House, Danny Partridge and Ronald Reagan are celebrating their victory in defeating the subversive Einsteins.

DP: Well, chief, I just got word that Vivian has completed her assignment. I told you she was the best.
RR: I've just been listening to the new Violent Femmes album, Danny,
and guess what! They have a song on it about my mother!!! Isn't that nice!!!
DP: Uh, yeah... Want some more Nestle's Quik?
RR: Yes.
DP: What's the magic word?
RR: Please... (Danny pours him some milk, and mixes in some Nes le's Quik.)

Back on Easter Island, the tide has come in, and the pit is filling up. Mary Tyler Moore is sobbing incoherently, and the brothers are really starting to worry.

Lou: Man, look at those waves out there. I wish I had my surfboard! SONNY: How can you worry about surfin' now?
FRANK: Look! (On the horizon, a bright red hot air balloon appears. As it draws closer, it becomes evident that it holds the Nasty Newtonians.)
NEWTONLANS: Hang on guys, we're coming to get you. (After landing, the Newtonians scramble for a while, then come to the statue with a large piece of metal from Mary Tyler Moore's Lear jet. They use it as a lever to lift the huge piece of stone off of the pit and free our heroes!!!)
ALL 5 EINSTEINS: Thanks, guys!
MTM: Awww, I got sand all over my dress...
NEWTONLAN \#1: No problem, guys. You know we physicists have to stick together against all opposition if we ever want to get anywhere a this world.
NEWTONLAN \#2: You said it!
JOEY: I think that we have all learned something from this quirky turl of events. Even adversaries will unite when confronted by a common foe. Co-operation is the American way!
LoU: Whoa, Joey! That's quite a mouthful, comin' from you.

JOEY: Mmmmmph... (takes a drink of his beer, then puts the can in his mouth and crushes it with his teeth)
вово: There's one other thing that we Americans love that we still have to do before this thing is settled.
soNNY: What's that?
вово: Revenge!!!
FRANK: Yeah, let's go teach Miss Vivian a lesson!
ALL (except Mary Tyler Moore): Yeah!
So, as we leave our friends until next fall, they are off to Washington to see that justice is done to Miss Vivian and her boss, Danny Partridge.

Until then, whether you are a physicist, mathematician or whatever, keep the spirit of cooperation alive!
W. Flaghoople

## Frontal-Lobe-a-Phobia

As we approach the deluge of demands upon our mental faculties known as final examinations, frontal-lobe-a-phobia, the overwhelming fear of thinking, is taking its usual toll upon the student community. With hopes of analysing and one day remedying this dire condition, we at mathNEWS have undertaken a case study of one of the many varieties of frontal-lobe-a-phobia: Amphobia.

Upon extensive examination, amphobia, the fear of applied math, as opposed to amphibian, which is frogs and lizards and stuff, seems to be the net result of suffering from many distinct, lesser phobias.

The very least amphobic (amphobian?) person, for instance, suffers from the following collection of phobias, which, on their own, would result in raging paranoic mania to a lesser breed.

Diffophobia - fear of differential equations
Wrophobia - fear of Wronskians (Not to be confused with the common Wrongphobia)

Jacophobia - fear of Jacobians (An unpleasant consequence of having both Wrongphobia and Jacophobia at a final exam is the dreaded Jacophobian matrix)

Sysphobia - fear of systems of equations
Vanderphobia - fear of Van der Pol's equation
dphobia - fear of little things
$\int$ dphobia - fear of lots of little things
$\sum f_{n}$ phobia - fear of uniform convergence
Fobia - fear of spelling tests
AMCSphobia - fear of bad joint major programs
Lambdaphobia - fear of Greek letters
iphobia - fear of complex analysis
$\nabla$ phobia - fear of AM grads
Fozzophobia - fear of the AM club president
Thetaphobia - fear of polar co-ordinates
If you find yourself becoming frontal-lobe-a-phobic or amphobic in particular, read over this piece a couple more times. Your brain will probably sieze up and then you won't have any more troubles.

Dan and dan

## An <br> IMPERIUMS TO ORDER

(Role-Playing and War Games)
103 QUEEN ST. S. KTTCHENER ONTARIO, N2G-IW1 (519) 744-3831

# The Raj Of Rochester 

## Part Eight

\{In our last episode, mild-mannered student Pierce Williams crossed the eerie stretches of Western New York astride a unicorn, and was brought to the abode of the as-yet-undescribed-but-longanticipated Raj of Rochester.\}

We sat under the enormous dome of the Raj's temple, cool green light filtering down from small windows far above. I faced the Raj; he seemed half-asleep, deep in thought as he blew bluish smoke up into the vast space. His face was heavily lined, burned and scarred in places, but as he drew on his hookah his bright eyes flashed across the dark. At length our conversation began.
"Let me assume that your soul is not in danger here. Karmelos' kwisagerei have their effect on those poor in spirit who have nothing better to believe in. Within this temple you are alone with only your own will guiding you. I brought you here for that reason."
"You brought me here? Then you must have sent those dreams."
"I apologise for the dreams. They were my sendings to you when you were too far away to read them aright. In the dream of your father's death I tried to tell you of the sin of despair, and of the ultimate circularity of your own journey. The dream of Tiswa was meant to tell you of the sin of faith in the flesh, in all things transitory. You must not let yourself believe in these things, for even love too will fail.
"The figure of the unicorn captured the essence of your own person, your own purity. Ultimately, you yourself are the unicorn, and you brought yourself here."
"I'm not sure I understand that. But the dreams were different-much more vivid than any others."
"There you sense the higher reality of the truths I have shown you in dreams. They also hinted at something I hoped you would guess yourself: that this world is of a less reality than the one you came from."
"What do you mean?"
"This world is an echo of your world." Here the Raj drew a capital Y on the floor.

"The worlds are the same up to the vertex; then they diverge, with your world ascending the wide way to the left, and this one to the right. But the fate of your world is sealed: atomic destruction in a very short time. The Seven Mages-of whom I am the last-anticipated this, and so here, at the star, we performed the Ritual of Purification, splitting the worlds in two. You have been brought forward, along here, from the Instant of Purification early in 1986 to several hundred years in the future of this world.
"You are free to choose one of several paths from this moment in time. You may return to your own world and live out the time before the holocaust. (For, they will be good years, as fair as the last shades of sunset.) You may stay here and choose the Dark; but I warn you that I'll not make a great prize for King Karmelos. Unlike him, I can shed this body like a used garment and take new form again.
"Lastly, you may stay here and choose the Light, becoming a servant of the Temple. I know the name Lucifer implies evil in your world, but here the Bringers of Light will create a new civilisation from nothing. I know, Pierce Williams, that your choice is not an easy one, but the forces that brought you here, though they are beyond my understanding, had a purpose."

He fell silent, took a long drag on his hookah, and blew a smokering that wafted up to the windows high above. You know the choice I made.
\{The preceding manuscript was found, on January 12th of this year, in the student village room of one Pierce Williams, who has not been seen since then. Any information pertaining to his whereabouts should be brought to the local authorities.?

## Close Call for Barney

I suppose that I had only been delaying the inevitable. After all, the neighbours had seen it happen. It would only be a matter of time before the whole town knew. I had to summon the courage to admit it to myself and to tell my parents: my dog Barney was a homosexual.

It wasn't obvious from the start. There was no hint of femininity in him; when he chased a cat or a stray tennis ball he exemplified the epitome of manly dogliness. Even his bark commanded immediate respect: it was gruff rough and assertive. However, Barney had a problem.

The problem may have been physical, but it was probably psychological. You see, it is very difficult being a dog in Canada. The dogs in this nation have to keep up a terrific facade of masculinity. This is mainly the fault of the thousands of snow dogs which blazed a trail through the frozen north in the pioneer days. They became the standard against which all dogs of the world were measured. Many modern Canadian dogs have found it difficult to live up to this macho stereotype. It was especially hard for Barney, who happens to be a Husky.

On that fateful day, I found Barney on a lot near our house preparing to test the virtue of another: a great dane by the name of 'Jerry'. Luckily, Jerry ran off when I got close enough to see what was about to occur, but the damage had already been done. The so-called closet door had been flung open, and there stood Barney. Oh , the same of it.

What would the townspeople say? The parishioners at our church?. Surely, they wouldn't blame me for this deviation, would
they? I was haunted $y$ the thought that Barney would never sniff the powdered behinds of those french poodles on Elm Street, but would instead be forced to surrender his innocent loin (slow fade in of violins - typist) to those butch bulldogs who hang around downtown. I envisioned myself having to take Barney for walks in the face if angry shouts from our neighbours, taunts from the children in the streets, and cat calls form the cats.

As I sat there, crushed by the uncertainty of my future as an upright and moral citizen, Jerry ran by. (This time his master, a pretty young blonde thing who went to my school, was running with him.) Barney took off after Jerry immediately. Barney! How can you do this to me? Baaaad dog! I wailed. he began to make his approach on Jerry, just as he had done last time, ready to display his affection publicly. Just then, Jerry's master called out - "Jerry! Come here girl!".

Girl? Had she just called 'Jerry' a girl?
Did you say "girl"? i yelled to her. Sure! What did you think? She yelled back at me. (I didn't answer, out of sheer embarrassment.)

I jumped up in the air with joy, sighing with relief. Jerry was a female! That meant Barney was a normal dog! All was well again! The birds chirped in the trees, the sun beat down upon the beautiful gardens, and the frogs croaked. My world had been returned to the state to which I had grown so accustomed: normalicy pure and simple.

I turned to Jerry's master eyeing her closely. "Saaay, cute thing, I don't believe we've met..."

# Slash's Shoebox 

## XI. The Last Huzzah

And I shall pass, incredible as it seems, into other lives; this is only an escapade perhaps, a prelude only.

Virginia Woolf
Go west, young man!
John Soule

Wisps of incense curl feverishly under the unrelenting drafts. The late-afternoon sun throws a dazzling splendour, ethereal and pacific, over my conscious world. My attention fades in and out with the Leonard Cohen and the reminiscences; I try to concentrate, but it is quite useless.

Five years, I ponder, is not really that long in present-day terms, but it is wrong to measure them on a temporal scale; they have been the most important of my life. I was nothing before, and now I am something. The memories cling like the ivy that was never part of this world, weathered, toughened, but scant of root. The hot sun and cold air mingle and the waves dance around on the page like the summer sea.

I shall remember the places where I have grown up, and the times I shared there. I will remember the lowly, homely Bombshelter, which in the old days we called the CC because it was the only thing of note in the Campus Centre. In those days, on Thursdays, we took the far wall, quaffed pitchers of beer and Siberian Sleighrides and swung our hips to what was, then, a new sound. There were always dozens of us, and there was always a lineup, because it was the only pub on campus. The last time we did that was October 8, 1984, a glorious evening. Since then I've only gone there on Friday afternoons. More recently the Campus Centre itself has become a place to see and be seen. It's harder to meet people I know there now, but the last couple of years it was great to hang out there between classes, have a cup of tea, and contemplate life. Also great for hanging out were the nowfading Fryday Pubs (cheap beer), the Gradklub (very cheap beer, darts, and they play music you bring), and the ES coffeeshop (great chat, bagels, and various liquids). The PAC pool was where we played crazed IW.

## Platter Splatter

Approximately a thousand people turned up for the Cult at Super Skate Seven on their first major North American tour. Having seen the Cult in Toronto last December, I was impressed at how tight and polished the band had become in mere months, but there was something missing... or at the very least, very different. Unfortunately, the confines of a roller-skating rink do not provide for the same intimate atmosphere that the Concert Hall gives. Not the greatest concert, it was nice to see the Cult performing "Love", "Phoenix", etc. and introducing a new cut, "Electric Ocean". This was apparently the second time they played the song although, in reality, they've probably played it a thousand times since it sounds like a mixture of "Rain" and "She Sells Sanctuary". The Cult seem to have grown arrogant with their new found, top- 40 success, but they are the "hot" group at the moment. I mean they have numerous sold-out concerts in the States AND are in the "People are Talking About Music" section of the current issue of Vogue. What more could a band ask for?

MathSoc sponsored one of the best concerts at Fed Hall to date. Montreal's The Box were just beginning their first out of home- province tour. The gig at Fed Hall on March 19 was their third Ontario date. This band was unbelievably polished and entertaining, not to mention amazingly personable. They used theatrics just enough to excite the crowd, yet not so much that it would detract from their

I will also remember the great bars in town: the Kent and the Baron in the old days, the old men's bars for draft and pool, Level 21 before it went bad. I will remember the treks to McGinnis for the drink of the day, the runs to BK with 'Psycho' Dave, and closing out Tony's with panzers. I will think of the recent times at the Princess, and after at the Parlour or the Duke, and of Sunday night jazz at the Duke, too. I will remember the parties: at Philip Street, at the manor, at Churchill Street, at Sunnydale, and elsewhere. I will remember the concerts, the road trips, and the weekends away. I will not remember Fed Hall; it holds not a single charming recollection.

I will remember the exigencies of my education: those professors who fostered my creative development, and those that destroyed it; that a far better grasp of the lesson can be had in a prof's office than in the lecture hall, and that the TA can be your best friend if it speaks English; that the only real lessons to be learned here are taught in bars and bedrooms. I thank the Faculty of Engineering for proving to me that the bad reputation the profession has is completely justified. I doubt that I will remember the more than fifty courses I have had here, but certain ones will remain stamped in my noggin.

I will remember my abode for the last five years, Renison College. What a place it was in years gone by: the parties, the pubs, the crazyness-with my departure an era ends. I suspect mixed feelings on that score.

Most of all, I will remember the people: the other three of the Silly Squad (Ike, Jam, and Nasty), the rest of the sordid 'gang', the cavalcade of party monsters from Renison, and the others-the cool and the uncool, the good and the bad-they all had their parts to play in the grand design. Whether quiet talkers, willing partners in major crimes, or people that just were, the time would not have been the same without them. The women, of course, were very special: quirky, cool for the most part, a challenge, and spiritually rewarding. I shall remember them all, as well as their musical, literary, and cinematic preferences. Their effect is a part of me.

The incense has burned up, the record is over, and I have nothing more to say-save one. For those of you who thought you knew who Slash Sinatra was, or who I was, you may be surprised. This is my twenty-fourth submission for this lowly publication, and indeed my last. If I made you laugh, cry, or think along the way, then I am satisfied. Adieu, then, and sweet dreams.

Jim Falconer
4B ES (SURP)
JALBHOTRTO
rich and vibrant music. The Box performed for us, but they themselves had fun as well and it showed in their enthusiasm during the $1 \%$ hour show. Without a doubt, The Box will be seeing great things in the future. Hopefully commercial success will not taint them as it has for so many other artists.

Concert Notes -- Level 42 has finally announced its long-awaited North American tour. Level 42 will be playing sold-out shows on April 23, 24 in Toronto's Massey Hall, as well as Kitchener's Centre in the Square on April 27.

Other concert listings -- Anne Clark at Larry's on April 3 -- Gene Loves Jezebel at the Diamond on April 6 .- The Beastie Boys at the Copa on April 8.

Ministry's album, Twitch, has just been released domestically, as well as Talk Talk's The Colour of Spring. Twitch contains "All Day" and "Over the Shoulder", but not "Every Day is Halloween". Remember about their upcoming date at RPM on April 10. Numerous reports on the Talk Talk album have been overwhelmingly favourable. Husker Du have released a new album, Candyapple Grey, with the first single being "Don't Want to Know". A new soundtrack LP by Orchestral Manoeuvres in the Dark has been released, along with the lastest album by Depeche Mode called Black Celebration (in the U.K.). This Smiths' album, The Queen is Dead, is scheduled for May. Tickets are now on sale for Siouxsie and the Banshees at Massey Hall on May 20.

CS Kittens


## The GridCommentSnatchers and The Day The GridComment Stood Still

Hear ye, hear ye! Correct entries for \#6's gridword were received from A.E.Clark \& G.C.Brown, The C\&O 230 Disconnection, Jane Dunlop \& Glenn Langford, Andrew Bornyi, Amit Parghi, Gillian Ying \& Louise McConnell \& Steve Rapaport \& Barb Doner \& Tony Duarte, Dwight Somers \& Paul Totten, Pamela Manson, M.R.Daigle \& D.Steven Riddell, Claudette Richardson \& Dave Dexter, Karen Thomsen \& Chico's Daddy, The Bobsy Twins (Dan \& Rog.), Kevin Picott, Jeff \& Ian Incalculus, Rob Horne, D.V.PKWY.x401, and Eggman \& Shithead (not to be confused with certain Watman characters!). The winning entry was a tough choice, but the East 4 Pink Flamingoes seemed to have the sincerest pumpkin patch.

Number 7's gridword was another matter indeed. Correct entries came from Ben Balboa, Chico's Daddy, and Ken Sulston. The most aerodynamically sound entry was that of Art-Sci Connection. Prizes can be picked up at MathSoc, but hurry! MathSoc is open only until Friday, April 4th!

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## Math Column

The solution to last week's problem (looks a little like the KW transit system doesn't it?):


This week's problem is to find a way out from the central space in the maze shown on the front page. This maze was drawn by Lewis Carroll in his early twenties. Note that paths cross over and under one another, but are occasionally blocked by single-line barriers. The solution will be posted on the mathNEWS door on Thursday.

The solution to the previous week's problem came from:
Yaglom and Yaglom; Challenging Mathematical Problems With Elementary Solutions: Volume 2; Holden-Day; San Francisco; 1967

The front page maze came from:
Gardner, Martin; Martin Gardner's New Mathematical Diversions From Scientific American; George Allen and Unwin Ltd; London; 1966
J. D'Oe

## Mathematical Puzzles

Solution to last week's puzzle: Two common answers were " 50 honest and 50 crooked" or " 51 honest and 49 crooked", both wrong. The second fact we are given is that "given any two politicians, at least one of the two is crooked." This means that no two of them are honest. Hence at most one is honest, and so by fact (i), exactly one is honest. [Correct solution by Ben Balboa ... Congratulations!]

Another way of showing this is to let any one honest politician be Joe (there is at least one honest one). Then pick any one of the remaining 99 and call him Ted. By the second condition, at least one of Ted and Joe is crooked. Since Joe is honest, Ted must be crooked. Since Ted is arbitrary, then all 99 must be crooked.
P.S. There are no more puzzles for this term but I'll be back in the fall with a whole new set. I hope you've enjoyed solving the puzzles presented this term.

The Wizard Of Id

