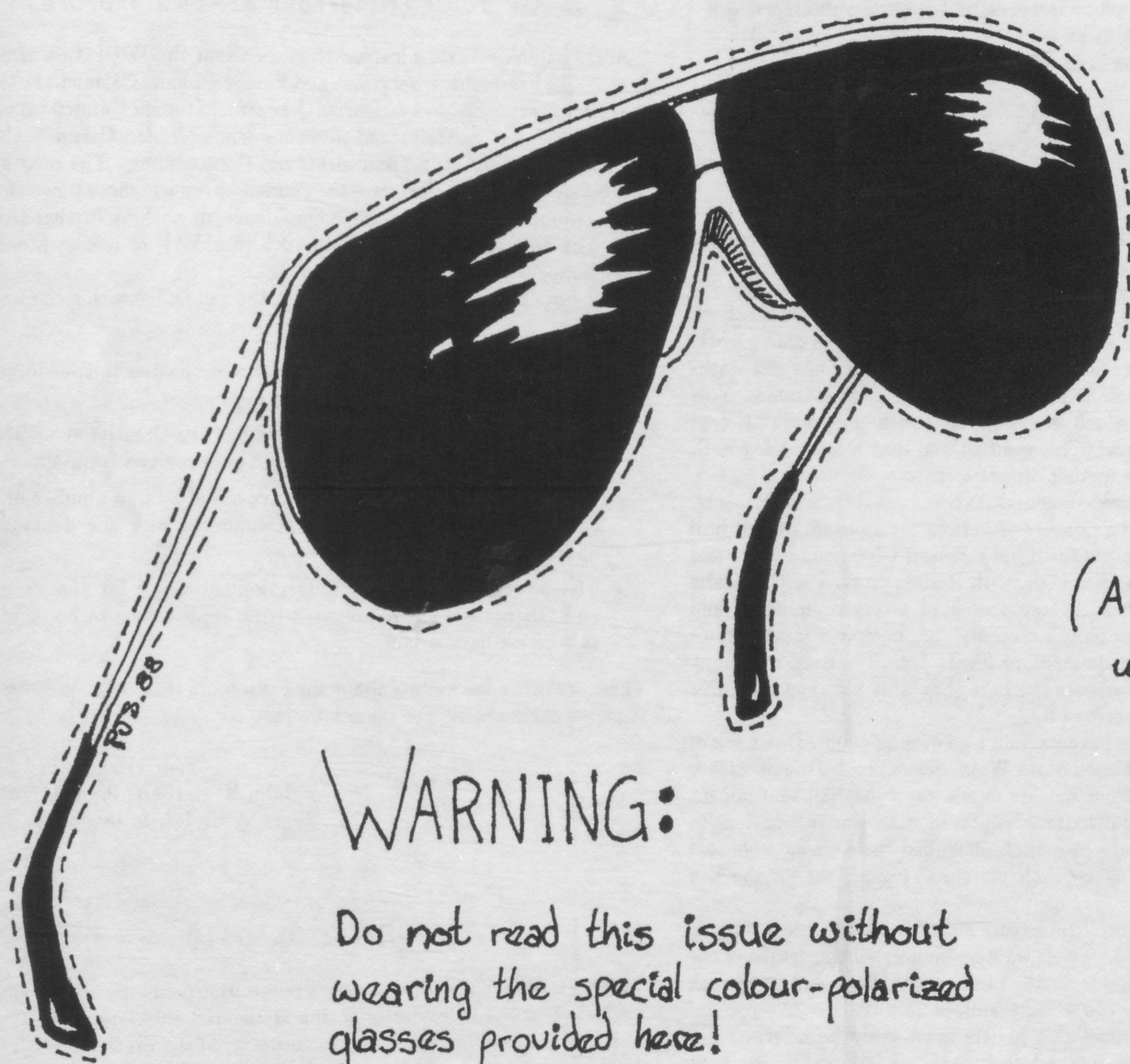


math **NEWS**

Volume 48 Number 7 Friday, December 2nd, 1988



(Also suitable for
use in the
Davis Center.)

WARNING:

Do not read this issue without
wearing the special colour-polarized
glasses provided here!

An Open Letter from the Summer '89 Exec

We would like to thank everyone who came out and voted last week; the turnout was excellent. We would also like to thank the other candidates for contributing to a hard fought campaign and helping to increase the visibility of the Society over the last few weeks. Special thanks go to Roger-Dodger, our friendly neighbourhood C.R.O., for putting up with all our whining and for keeping the campaign legal but interesting. Finally, we would like to thank everyone who helped us during our campaign, especially those who applauded during our class tours.

We are looking forward to making a great Summer '89 term. We plan to continue our class tour schedule to keep you informed about social events and we will be keeping regular office hours so that you can come and talk to us about your concerns. We encourage anyone who wants to get involved next summer to contact one of us (Tom - 746-2541, Anne - 747-9646, Peter - 884-0346) as soon as possible so that we can get the term started right away. We will be needing class reps, appointed executive, office workers, and general volunteers so if you're interested, please let us know.

That's it for now, see you in the summer!

Tom Vandello
Anne Ellerington
Peter Von Schilling

Social Happenin's

And now, the end is near, and so we face the final curtain . . .

As the term closes, it is time to reflect, patting ourselves on our back for the events that went well, and figuring out why others didn't work.

Oktoberfest went better than it ever has before, with some 400 Mathies going out to Bingenman and enjoying themselves to extremes. This forecasted a great term, which was reaffirmed with the presentation of Rocky Horror Picture Show. This went so well that MathSoc & MGC, with the Feds, will be presenting it next term as well.

Now for some of the down moments. At the Annual General Meeting, the society was presented a number of options for an event at Fed Hall in November. The group voted to have Frozen Ghost to appear, and appear they did on November 17th, with Roman Grey. For those who showed up, Frozen Ghost and Grey presented a very professional and high energy show, Roman Grey especially! It's been a long time since a warm-up group got the dance floor filled. Unfortunately, not many people showed up to experience the best show this term, as the BEnt activities coordinator described it.

Also some other planned events didn't go over as planned. A week of tourneys and contests, dubbed Math Week, didn't receive the necessary drive and participation from helpers, while the volleyball tournament held last weekend only had six teams entered in it. Congratulations to "Bob Comes Home", who successfully defended their crown from last term's tourney by winning all their matches. (watch out for the Kin team, though!)

The job of co-ordinating these events includes a lot of guess work in figuring out what you, the society, wants, planning all the details of the event, and finally, getting people out to the event. Each and every task is difficult and cannot be 100% successful, but we try.

Those of you still reading this article must truly be interested in MathSoc social events, so we put it to you. If you want your next term's events to go the way you want, come into MathSoc and offer your help or advice. Remember, we are all working for you but would rather work with you . . .

TTFN, and have a great term!

John and Rob

Prez Sez

Well folks, the end of another term has come and finals are upon us (oh boy!). I hope everyone has had a good term and finals don't spoil your Christmas.

Office hours for the final exam period are posted on the MathSoc office door (MC 3038). Be sure to check if you plan to do some copying of old course finals.

It's been a pretty busy term in the Soc office and I am almost happy that it will be over soon. It's been great being Prez; I've learned a lot. Thank you to DK for all his help and to everyone else who was there (yes, that includes you, BS and PO)

Congratulations to the new summer executives, Tom, Anne, and Peter, and to all the runners-up.

Lisa

Feds

or Are You Getting Your \$18.50's Worth?

Well, I think everyone has heard more about the Federation of Students' Vice President, Operations and Finance, Shane Carmichael, than anyone deserves. But to summarize the events, Student Council brought down motions of restraint and non-confidence on Mr. Carmichael for his actions leading up to, and including, Homecoming. The next step will be for the VPOF to resign, the council to remove more power from his position, the council to regain confidence, or nothing further to occur. The next meeting is December 4th (Sunday), so ask us Monday what happened.

Hey, but other things are occurring in the Fed Office with some worth reporting . . .

- Feds are planning to cooperate with other parties in sponsoring a refugee student to study here next September.
- "First Strike" was a smashing success of the Creative Arts Board with a good turnout every night and rave reviews from all.
- The Housing Issues Committee have noted a large number of vacancies in the Villages and in townhouses with the demand in apartment letting.
- The position of Board of Entertainment Chair for the summer and Orientation Chair are open with applications to be directed to Adam Chamberlain.

These are just a few tidbits about the Feds, more than what the average students cares about. For more info, just ask . . .

Your Friendly Fed Reps
John K. Herbert, Paul D. Obeda,
Roger M. Tudor, & Jacqueline Yang

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Editor: Tom (I'm outta here) Vandello

The CSC FLASH!

First, let me say that there are still a few shirts left, if you want one. Also, we have already started selling memberships for next term, so you can keep your watcsc account active during the work term if you wish.

Do you have files on Unix or CMS that you want to keep? Well, there is an IBM PC in the CSC office that anyone (not just members) can use for downloading. Just walk in, and someone will be there to help you get started. This is a free service provided courtesy of MathSoc, and operated by the CSC.

Last Thursday, Professor Scott VanStone of the C&O Department here at UW gave a talk on public key cryptography. He first explained simple cyphers such as the Caesar Cypher (which can be done with the 'tr' command on Unix), and then more complicated cyphers. There are two basic types of public key cryptography: RSA, which is taught in math 134a, and discrete exponentiation (which is not, so don't worry!). Discrete exponentiation uses the concept from group theory that finding discrete logarithms (opposite of exponentiation) in a group is difficult, and thus the numbers in a cyclic group can form a one way key. Of course, exponentiating large numbers quickly is also a computationally intense action, so a chip was developed to do this very quickly. Professor VanStone said this chip allows them to do public key cryptography 15 times faster than an RSA chip would allow. It was an interesting talk and about 40 people showed up for the event.

The Traditional CSC three-times-a-yearly D Dinner has been planned. It will occur next Monday, December 5th at 17:00. The location will be Chances R. Any member or non-member is invited to join us.

And now the answers to last week's computer trivia:

1. The first 'bug' was found by Commodore Grace Murray Hopper, who found an actual bug that was causing a malfunction in a vacuum tube machine.
2. IBM introduced its 'Personal Computer' in 1981.
3. Unix is actually a pun: Castrated Multics. "Although it was not until well into 1970 that Brian Kernighan suggested the name 'UNIX', in a somewhat treacherous pun on 'Multics', the operating system we know today was born." - "The Evolution of the UNIX Time-sharing System" D. M. Ritchie, October 1984 AT&T BLTJ.
4. The first synthesized music was done by Peter Samson on the TX-0, although some clever hacks managed to get printers to sing, by printing the appropriate characters to generate a certain tone, before him.
5. William Shockley and his team invented the transistor on the 23rd of December, 1947.
6. BASIC was first introduced at Dartmouth College by Kememy and Kurtz. Since then, it has become bastardized into the 'street BASIC' that runs on micros. There are now versions of the original 'true BASIC' available for micros and minis.
7. Nova was the name of Data General's first computer.
8. HAL stands for Heuristically programmed ALgorithmic computer.
9. Trek-80 first ran on the Processor Technology SOL-80.
10. WIDJET stands for Waterloo Interactive Debug Job Entry Terminal.
11. The IBM 5150 is commonly known as the IBM PC.
12. "The System/360 architecture was introduced on April 7, 1964, with the announcement of the first six models." - "Case Study: IBM's System/360-370 Architecture", David Gifford and Alfred Spector, CACM vol 30, no. 4, April 1987.

Well, it's been a fun term. See you all in January or May. (as co-op may dictate)

Calum T. Dalek

mathNEWS Subscriptions

Before all you co-ops pack up and head for Chalk River or Pinawa or wherever, remember to get yourselves a subscription to your Friday morning friend, mathNEWS. Just stop by the MathSoc office and ask the friendly office worker for a form, fill in your name and complete address, and shell out some dough to cover postage charges. For the meager price of \$7.00 in Canada, \$9.00 in the U.S., or \$12.00 overseas you can satisfy your addiction to prof quotes, gridwords and all those awesome serials during the Winter term. Subscription forms will also be available on the wall outside the mathNEWS office (MC 3041) until December 22nd, but don't delay: get yours today and we'll include this lovely set of Ginsa knives, a bamboo steamer, a fifteen-in-one screwdriver and a year's subscription to *Sports Illustrated*...

Vapid Fire

- VPOF Lame Caramilk has been indicted on charges of embezzling \$12 000 from the FEDS. Said a spokesman, "We were getting worried. We didn't think anyone was stupid enough to lose money on homecoming. This really clears things up."
- A new religion column will begin in the Imp'tint this week called "My buddy, the Almighty." It will offer "the definitive word of God, and the answers to those nagging questions about the big bang and why engineers are such losers."
- The Imp'tint has decided to run the All Shane Carmichael issue with "Pictures of our favourite FED exec at work, rest and play, as well as articles telling what a good guy he really is, even if he can't count."
- Plans to boost engineering enrollment have met with resistance from other faculties. "Hey, I've got a low tolerance for floods and cheap running shoes", one student was heard to protest.
- Prime Minister Lyin Baloney signed his free trade deal this week and announced at a press conference that the Davis Centre would be traded to the Americans immediately. In return the Canadian government will recover Wayne Gretzky. Fortunately, since his wife is an American citizen, she is not included in the deal.
- A scandal has arisen in the wake of the MathSoc elections. Further investigation has president-elect Tom Vandeloo trailing 170-82 at the last official count, even though he was declared winner last week. Speculation at this point is that the CSC members assigned to count the votes had stupidly hooked up the terminal to the Federal Elections Canada computer. (I thought those numbers looked familiar).

Bruce Greener

FRESH!

HOMEMADE BURGERS & STUFF

SAVE 18%


STANLEY BURGER
REG. FRIES
REG. POP


now only
\$3.89

210 KING ST. N.
WATERLOO
886-1886

across from WLU

"taste the difference of a freshly made burger."





Prof Quotes

Well kids, here's the last batch for this term. Thanks to everyone who submitted quotes this term: it's nice to know that somebody out there is listening to the profs. If nobody listened to them then their lives would become trivial and meaningless like that of the person who writes the introduction to the prof quotes.

Even though this is the end of term, don't stop being submissive. Drop your quotes in the BLACK BOX or under the door of the mathNEWS office, MC 3041. And remember, kids, your professors are trained professionals, so don't try these at home.

"You are supposed to spread people out, not hump them."

W. Aitken ActSci 231

"...bring beer to the final. ... Right! It'll be an open bottle final. Please don't quote that in mathNEWS."

M.J. Best, C&O 350

"Don't drink and drive; Too many people are caused by accidents."

B. Lawrence, Mthel 100

"Are you guys crazy? I'm not going to do it. I'm the prof. I can say 'dot, dot, dot.'"

G. Tenti, AM 381

"You can begin to smell a derivative. Of course, you have to know what a derivative smells like."

A. Brender, ActSci 232

"That was a good blow."

G. Holmes, Music 101

"I hope you're thinking 'three' ... at least, I hope you're thinking."

C. Springer, Stat 230

"No one likes being dead."

M. McDonald, Phil 215

"Does anyone want to watch the two balls drop?"

I. McGee, AM 260

"I can factor six uniquely into primes in two ways."

Cummings, Math 134a

"You should get an irresistible urge to row reduce."

R.A. Staal, Math 134b

"I'm so disappointed. I keep saying outrageous things and I never get quoted."

C. Struthers, Stat 230

"... or I could be interested in 70 year old women ..."

J. Lawless, Stat 231

"... very attractive; just like a woman in heat ... er, wombat in heat, just like they say down in Australia."

I. McGee, AM 271

Conan the C.A. meets Captain Calculus

It was a bright, sunny day when Captain Calculus, weary from a long morning of solving n^{th} order non-linear differential systems, decided to head over to Scoops and avail himself of some frozen confectionaries. As he lazily sauntered down the path to the C.C., he was shocked to see dozens of leather-clad artsies running from the building, screaming and clutching at their ears in apparent pain. Suspecting that something was afoot, Captain Calculus stepped up his pace and strode heftily past the fleeing Turnkeys into the C.C.

When he reached the Great Hall, Captain Calculus was greeted by an unusual sight. Seated near the center of the hall in a lime green chair was an extremely large man reading an incredibly thick book and mumbling to himself. The bulky stranger was clad only in a loincloth, a blue striped tie, and a jewelled book bag draped over his shoulder. As he moved closer, the Dynamic Differentiator was overcome by a wave of nausea as the stranger's words reached his ears. It was the dreaded I.C.A.O. Members Handbook, Captain Calculus realized, and the stranger was none other than the infamous Conan the C.A.

In a desperate effort to keep himself from being overcome by boredom, the Intrepid Integrator ran over some common elliptic integrals. Conan looked up from his reading at this, and taking the recitation of the ungodly integrals to be a challenge, let fly with Section 5 (Rules of Professional Conduct) of the Handbook. While this would send any normal human into a seizure, Captain Calculus was prepared for just such a return and retaliated with some tests for absolute convergence of a series. Conan braced himself for the onslaught and replied with Section 3 (Bylaws). The resulting explosion sent both of the super-Mathies flying out of the C.C. and onto Ring Road.

Captain Calculus awoke first to find a crowd of spectators circling the titans, murmuring among themselves. As he assessed the situation, the Terrific Theorist came to the conclusion that he was outclassed by the sheer boredom power of Conan's mighty weapon. He then fell to his knees and mumbled a short prayer to his gods for assistance.

As he uttered the last syllable, a shower of lightning struck the Davis Center and shattered it utterly. From the newly formed clouds a ghostly white figure floated down to the battlefield and stood before Captain Calculus. "I am Gauss," the figure proclaimed in an earth-shattering voice, "and I have come to the aid of my student, Captain Calculus." At this, the pure math students fainted from excitement, the engineers and scientists passed out in mental agony, and the artsies and H.K.L.S. students wandered away in disinterest. The only people left standing were the applied math and C.A. students.

Conan reacted quickly to the announcement by whipping out the latest issue of C.A. Magazine and bellowing out the table of contents at his adversaries. While Gauss' calculus skills were strong enough to enable him to survive the deadly words, Captain Calculus was caught by surprise and, with a loud groan, lapsed into a deep coma. Gauss quickly set up a complicated ϵ, δ -proof, completely confusing Conan, and retreated to Hagey Hall.

Infuriated by his enemy's tactics, Conan struck the proof with a copy of the IBM 1987 Annual Shareholders' Report. When the smoke cleared, Conan saw Gauss running down Ring Road and, with a blood-curdling scream, gave chase.

Conan finally caught Gauss in the center of Hagey Hall and, perceiving victory, began to meticulously recite the entire C.I.C.A. handbook, chapter and verse. While this action destroyed most of the Arts buildings, Gauss was able to delay his doom momentarily by proving Green's Theorem in n -dimensional space. While Conan reeled from the horrendous proof, Gauss set up a complex one-to-one correspondence between Hagey Hall and the sixth floor of the M.C. building. Conan recovered to find himself hopelessly lost and immensely frustrated.

TMOL et. al. (Who's AI?)

Elections Report

MathSoc Summer '89 Exec

Particulars:

- Nominations Opened - Monday, November 7, 09:30
- Nominations Closed - Friday, November 11, 16:30
- All Candidates Meeting - Friday, November 11, 16:30
- Campaign Opened - Friday, November 11, 17:00
- Campaign Closed - Sunday, November 20, 23:59
- Election Days - November 21 and 22, 08:30 to 16:30

Results by Position:

President - 384 ballots cast, 19.9% voter turnout

1. Tom Vandelloo - 249 votes, 64.8%
2. Rob Harnden - 128 votes, 33.3%
3. spoiled - 7 votes, 1.9%

Vice-President - 381 ballots cast, 19.8% voter turnout

1. Anne Ellerington - 221 votes, 58.0%
2. Shelly Ruth - 154 votes, 40.4%
3. spoiled - 6 votes, 1.6%

Treasurer - 381 ballots cast, 19.8% voter turnout

1. Peter Von Schilling - 192 votes, 50.4%
2. Doug Hopkins - 133 votes, 34.9%
3. Trish Boyachek - 50 votes, 13.1%
4. spoiled - 6 votes, 1.6%

Spoiled ballots are either unmarked or incorrectly marked.

Roger Tudor
Chief Returning Officer

Cram of the Century

Now they're planning the cram of the century
Well, what will it be?
Read all about those Green's and Stokes's Theorems
It's all worth the fee

So roll up and see
How they rip through their textbooks
How they've gone back to front

Who are these men who've lost time to study
Rip off their masks and lets see
But that's not right - oh no what's the story
There's you and there's me

We're not ready to write!!!

gwai-lo

Everybody Read This

At the beginning of the term, we (foolishly) volunteered to be editors of the 1989 yearbook. We haven't seen our marks yet, but we may be working on the 1990 yearbook as well. In the meantime, we would like to thank everyone who contributed their time, effort, creativity, humour and good looks to lighten the burden on our broad shoulders. Some of these people are: Angela Bacon, Marty Black, Frank the Business Admin. Alligator, Tim Chillingworth, Jim Dupuis, Lisa Falco, Charmaine Ford, Scott Graney, Arthur the Honours Non Spec. Toucan, Simon the Janitor, Ben Johnson, Elaine Johnston, Rick Juritsch, Nuru Kamdar, Hannah Lee, Ritch Lodge, Angelo Lor, Leslie McShane, Ina Nanda, Paul Obeda, Pretzel, Micheal (not Mike) Suski, Phil Sewell, Thuy To, Marg Vaillancourt, and Ken Wong.

If we have overlooked anyone, we would like to thank them anyway. Last but not always least, we would like to thank Greg Mushuman-skikajseuyrbcjuyub because he said we should.

However, our work is only 21.4% finished, so we will still need people to come out in the winter term and we continue to desperately need your pictures.

TQSPW

Orest Nahacziwec,
John Park,
Sandy Graham

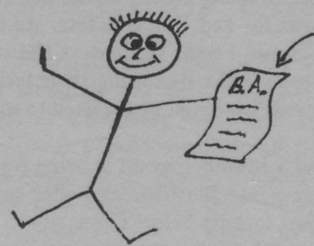
NSERC Awards

LOOKING FOR A SLIGHTLY DIFFERENT WORK TERM OR
SUMMER TERM EXPERIENCE ?

ATTENTION: Undergrad students interested in applying for an NSERC Undergraduate Research Award: These awards are designed for senior undergraduate students interested in spending a term (Summer '89, Fall '89, Winter '90) doing research work with the supervision of a faculty member who is a current NSERC grantee. Math students interested in applying should have strong cumulative averages and some potential for involvement in innovative research in any of the five departments of the Faculty of Mathematics. Reimbursement is usually commensurate with salaries for co-op work terms. If you have further questions or wish to apply for consideration for one of these awards, applications are available from department secretaries or from Lyn Williams, MC 5113. The deadline for applications is December 12th.

Top Ten Things I'd Rather Be Than An Artsie

10. Defunct.
9. Deceased.
8. Departed.
7. Gone.
6. Inanimate.
5. Lifeless.
4. Insensible.
3. Unconscious.
2. Dull.
1. Spiritless.



(Almost as
useful as
an Imp'tint)

To The Editor

To the Editor:

I am writing to express my disgust with the performance of the publicity director for MathSoc.

I went to see Frozen Ghost on Nov. 17 (a MathSoc sponsored event, in case you didn't know). This band seems to get quite a bit of airplay on local and Toronto radio stations, and from this I would deduce that they are at least marginally popular.

Why is it then that there were only about 50 more people there on the seventeenth than there were last year when the band was basically unknown in this area? The answer to this question is quite simple: shitty promotion.

Several people I talked to said that they had only heard about the show a couple of hours before it started, and these people were FANS. The only advertising I saw were the PUNY notepage sized ads around the Math building and one publicity poster inside the display cases. Who was supposed to notice these ads in the riot of election posters?

I would strongly suspect that MathSoc lost money on this event (How about letting us know?), and the only possible reason I could see for this is that your publicity director was asleep at the switch. Maybe the money you lost should come out of his pocket.

Stephen Green
3A CS

Dear Mr. Green:

In response to your letter criticizing the publicity for the Frozen Ghost/Roman Grey concert at FED Hall on Thursday November 17th, I have itemized where the event was publicized:

- Imprint Campus Events/ Entertainment page, Friday Nov. 11 issue.
- On Campus Events board outside CC, Friday Nov. 11 to Thursday Nov. 17.
- lighted billboard in front of Fed Hall.
- banner in Campus Centre. (Monday Nov. 14 to Thursday Nov. 17)
- mathNEWS. At least one month prior in events column and ad in issue prior to concert.
- 3rd floor display case outside C+D at least two weeks in advance. This was done because the posters had to be put behind glass to prevent theft.
- signs in math building at least two weeks prior (I realize these were obscured by election material, but that was beyond my control. Also note, the display case, and signs in the 3rd floor C+D serving area remained free of election material.)
- above signs also distributed to various events boards around campus (including CC).

As for your criticisms of the promotional signs, I did the best I could with the materials at hand. Usually BComm (the Fed's board of communications) produces signs for Fed Hall concerts. As they have been very slow this term in doing so, I went to them at the start of November and volunteered to produce the sign using their facilities (this is a paid position), but they never bothered to get back to me about it, and never did do a poster.

In the future, if you feel a MathSoc event is being poorly promoted, then please feel free to come into MathSoc and offer constructive criticism, advice, or even (God forbid) help. These would be much more appreciated than a useless post mortem on the situation. If you still feel you could do a better job, then why don't you sign up to be Publicity Director for either the Winter or Spring '88 term.

Rob Harnden
Fall '88 Publicity Director

To the Editor:

First, I would like to compliment you and the mathNEWS staff on a job well done this term. mathNEWS is by far the best faculty publication on campus. Unfortunately, due to a night class on Mondays, I was unable to make it out to production nights. Hopefully next term ...

I am not the complaining type of person, but I would like to address an issue that concerns perhaps the majority of students at UW. While I was picking up my course schedule the other day, I obtained a copy of the Winter 1989 registration newsletter. I noticed under the section *Incidental Fees* that each student must pay a compulsory "Intercollegiate Athletic Fee" of \$25.25 per term. Since there are approximately 10,000 students on campus a term, and there are 3 terms per year, this amounts to $3 \times \$25.25 \times 10000$ or \$757,000.00 that UW receives each year to supposedly support intercollegiate athletics.

Now I am not trying to act like a politician but I definitely think that something is rotten in Denmark. I know that a given student at Wilfrid Laurier does not have to pay a similar fee unless he/she is an active participant in intercollegiate sports. Unless someone can show me an annual report on how this sum of \$757,000 is utilised to support intercollegiate athletics, I would be willing to start a petition and present it to the UW administration. If somebody doesn't do something about it, the university will continue to walk all over us. \$25.25 does not sound like much, but wouldn't your rather have \$25.25 than not have \$25.25?

Terry Main
2A CS

Yes, They Know It's Finals

Sung to "Do They Know It's Christmas"
With apologies to Midge Ure and Bob Geldof

It's finals time

There's good reason to be afraid

At finals time

We solve for x and differentiate

And with our load of textbooks we can moan a sigh of grief

Cram all night and rack your brains at finals time

And say a prayer

Pray hard that you will pass

Then find a desk

Open a book and sit on your ass

This one covers forty chapters, so sit tight, don't hit the roof

'Cause all you have to do now is learn about a million proofs

And as we head into December, we're all prepared for certain doom

And the profs laugh 'cause it's not them, instead it's you

No, they won't be partying in Waterloo at finals time

Their greatest mark they'll get this year ain't nice

Where IQ's never grow

No thoughts, no brainwaves flow

Yes, they know it's finals time again

Here's to you, let's hope it's not too severe

Here's to them, take it all over next year

Yes they know it's finals time again

(Hit the books) Get no sleep, it's finals time again

The Medieval Gladiator

Ultraclassified

Would Michael Leonard please contact Tom Vandelloo via the Mathematics board or at the mathNEWS office to pick up his registration cheque for the 'B' basketball team.

And lets have a *big* round of applause for our ski bunny . . . miss Janet Chew . . . yeah . . . yeah

Did you know that Calvin Klein actually draws inspiration from the hip-hop crowd at Waterloo? Or that Ralph Lauren used to breakdance?

Wanted: A California girl doing her masters in Marine Biology. Reply to Andy, room 205, South 1.

To Mikey B. and Jimmy R., one ex-mathie and one we're-not-sure mathie: many thanks for the other night's adventures. I will cherish it forever. You are both such gentlemen. Where did you learn some of those things? Just remember who showed you the light!

Love ???
Female dominance and
male submission forever!

P.S. Why do both of you have the same tattoo on your pointer finger? Didn't it hurt?

CS 131 is not

An angry CS131 student

The Wine Hansard - some selected comments:

- . . . cheeky but palatable (Tom)
- . . . linguini, fettucini, lasagna, rigattoni, spaghetti (Sean)
- . . . I could finish *this* one (Kathy)
- . . . fruity but I'm not Homophobic (Joel)
- . . . obstinate, ostentatious, yet quite organic (Darryl)
- . . . like Welch's and Alcool (Blair)

CC are you sure you can't come visit? Not even for a minute?

Spook

Q: Why are Americans buried 26 feet underground?

A: Because deep down, they're nice people.

CYBERman

Wanted: Statistical study on probability of a guaranteed winning strategy for new 'guess what colour the next wall will be' game in the Davis Centre.

Attention Darth Vader:
Hope you liked the VP Planner assignment; welcome to the first in a long line of doing your own *&%\$!?' homework for a change.

CENSORED

The Adventures of Wuppie Man

Wuppie Man Saves The World

By day Ivan Martin Boring is a fresh-faced young CS graduate, but whenever duty calls, his true nature as an AI hacker emerges, and he becomes Wuppie Man!!

"Hey Ivan, we need your experience over here", called a young blonde who was hired as a secretary a week after he was hired.

As he was walking over to determine what kind of sophisticated and obscure bug he could spend all day tracking down, thereby staying as close to the secretary as possible, Ivan could not help thinking about his promising career, and how lucky he had been to choose this company. "This really isn't a bad place to work," he mused, "and to think that they made me head of Systems, Hardware, and Information Technology on my second day here. I guess I'll get used to being called SHIT head."

"Yoo hoo!" the pretty young secretary said, jolting Ivan out of his thoughts, "I was hired for my looks, not for my patience." Somehow her constant smile and short skirt made the remark seem much softer. "How can I get this silly calculator to remember the number I'm working on again? I know that you told me yesterday, but it's sooooo complicated." Again she flashed the winning smile, so wonderful and uplifting, yet completely devoid of thought.

Ivan explained to her yet again how to press the 'STO' button, and began to quickly think about excuses to stay there, when another one of the secretaries came by. "Jane I just found out. The secretaries are only going to get a \$1.50 raise this time."

"Raise?" Thought Ivan, "They told me that they had to freeze wages. Might even have to face a cut."

"WHAT??" exclaimed Jane, "I can't live on \$30,000 a year!! I have to pay off my car, and I have movies and such to go to. And how will I pay for clothes?"

Ivan, in shock, walked back to his desk. "But they're only paying me \$25,000 a year. And she's newer than I am. I guess it's some sort of mistake. I'll see the Big Guy first thing tomorrow and get this minor detail straightened right up." Little did Ivan know that there were events happening that could cause there to be no tomorrow . . .

That very night, in a small darkened bedroom, lit only by the flickering glow of a CRT, a young hacker was attempting to crack the ultimate computer. Not GM, not NASA, not even NORAD. This was the THE computer, the one that all our lives depend on, and are controlled by. Yes, a hacker was attempting to gain entrance into the very core of the mainframe shared by CBS, ABC, and NBC.

Will Wuppie Man be able to save the TV world? Will we ever be able to watch TV again? Will Wuppie Man get to talk to Jane? Will he get a raise? Will I bother to write a sequel to this? Stay tuned next week to find out the answers to this and other questions!

WupChuck

Chair Chat

Hello everybody! It's that time of the term again. We're all busy getting ready for finals and, of course, Christmas. So I just want to give my thanks to *everybody* who has helped the MGC over the last three months. I wish I could name you all, but I don't think Tom would appreciate me using all his space. Thanks!! (especially to the people who have given their time to organise the various areas).

See ya all in January. Don't worry, we'll have lots more work for everybody then. Remember the Math Grad Ball is just a short 86 days away!!

Greg Mushumanski

Top Ten Things We Bet You Didn't Know About The Davis Centre

1. Static electricity generated by the building is the psychology department's method of giving electric shock therapy to the CS department to "stop them from being so geeky."
2. The glass office walls are there so that we can see nerds in their natural habitats.
3. The \$50 million price tag is an unfounded rumour. It came free when Rug Flight bought his Ronco Vegematic.
4. The wild colour scheme is really an attempt to render Davis World in 4-D (just send . . . \$19.95 to me, Count Floyd, and you'll get 4-D glasses.)
5. The Billy Building is part of the U.S. Defense Department's new "Stealth computing facility" program.
6. There is noooooo . . . number 6.
7. The faculty have endless hours of amusement watching drunken students make faces at themselves in the mirrors.
8. Large pink tubes are used as transportation for the "stuff" food services uses to make "food" on campus.
9. The Big Ugly Glass Outhouse was originally intended to be used by the little known Faculty for the Study of the Terminally Colour Blind.
10. Those bunches of stools are really a radio-telescope array searching for signs of intelligent life in the engineering faculty.

Bruce Greener with help from his Bruce friends

Hot Research Topics On Campus

- Particle Physics** Making perfect toast with 1.3 TeV synchrotron particle beams as a method of control of airborne pests
- Applied Math** Continuum mechanics approach to modelling the angels / pin problem
- Statistics** Stochastic processes and success probabilities in singles bars
- Act. Sci.** Life expectancy tables for 36-year-old midget sumo wrestlers named Bruce
- Chemistry** The enzymatically accelerated entropy increase in synthetic fabrics in social situations
- Psychology** Effects of negative physical stimuli on articulation in situations of impromptu and unwilling public speaking
- Optometry** Effect on eyes by extended use of telescopic devices at high elevations in an urban environment
- AstroPhysics** Applications of superstrings to urban construction stealth applications of virtual form gravitational lenses
- Astronomy** Evaluation of observational differences at tropical locations
- Mechanical Engineering** Hydraulic presses as an alternative means of opening prepared aluminum fluid containers.
- Physics** Kinetic energy losses due to friction between two oscillating dynamic bodies in resonance
- Biochemistry** Tailored enzymes for masking steroid-masking agents
- Biology** The transformation of geeky frosh nerds to geeky graduate nerds

PMATH 352 Shuffle

To the tune of
"Knock 3 Times on the Ceiling if You Want Me"

If you look at the midterm in fright
Failure, you know it
You surely will blow it
You're panicked

You can almost see my answers clearly
And you need them really dearly
Why did they ask this?
There's no way you'll pass this
You're blanking

Refrain: Oh PMATH student,
knock 3 times on the desk if you want Cauchy's
two clicks of the pen if homotopic you don't know
tap-tap-tap means you need the answer to 3
twice with the pen means my answer I'll show

You start the exam with question number one,
Part marks, you need them,
But what was that theorem
by Morera

You can tell I'm integrating
You can see all hope is fading
One seat beside you
My answers can provide you
A passing grade.

(Refrain)

A²

Some Old Jokes

Q: How can you tell if an artsie has been working at your terminal?

A: There's whiteout on the screen.

Q: An engineer, a physicist, and an artsie jump off the CN tower, who hits the ground first?

A: Who cares?!?

A physicist, an engineer, and an mathie were umpires at a base ball game. In the bottom of the ninth, with two out, a runner was called out by all three umpires. The coach asked each umpire why the man was called out.

The physicist said, "He's out because I call'em as I see'em."

The engineer said, "He's out because I call'em as they are."

The mathie said, "He's out because I called him out."

The reason parents don't want their kids to become actuaries is because they resent the idea that their kids are calculating the probability of receiving a substantial inheritance before they graduate.

the man without a pseudonym
High Tim

Keener Pinball

Are you looking for a keener game to play outside of class? Are you tired of Keener Bingo? If you are, we wish to introduce to you the game of Keener Pinball!

There is now a new breed of keener which is beginning to appear. These new-breed keeners try to disguise themselves as normal people (and fail). An arcade keener may be recognized as follows:

- they carry around more books than you own.
- they are always seen in the arcade, but are never seen playing the games (unless they are free).
- they are known to sit in the arcade reading textbooks (aack!).
- they will stand looking over your shoulder and breathe in your ear while you try to play a game.
- they try to look like they belong by wearing imitation leather jackets and jeans.

The game of Keener Pinball starts when an arcade keener comes over to watch you play. The object of the game is to make the keener go away and stop bothering you. You start with 5 balls, and lose a ball each time an attempt to make the keener go away fails. You are awarded "points" for the following actions:

- making keener go away
 - 100 points
 - without losing your arcade game - 500 points
 - using your arcade game - 1000 points
- elbow bumpers (elbowing keener to keep him back) - 100 points
- smart reply to keener's stupid remarks - 50 points
- increase multiplier each time the keener comes back
- free game if the keener not only leaves you alone, but runs away

There is also a special two player game in which both players try to get an extra ball by stealing the keener's books while the keener is annoying the other player.

Note It is possible for more than one person to play keener pinball with the same keener as they have a tendency to migrate from machine to machine.

The 4 Musketeers

Proof of the Week

Proof that $3 = 2$:

$$\text{Let } x = 1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \frac{1}{5} - \frac{1}{6} + \dots$$

$$\Rightarrow \frac{x}{2} = \frac{1}{2} - \frac{1}{4} + \frac{1}{6} - \frac{1}{8} + \dots$$

Adding the two equations:

$$\frac{3x}{2} = (1 + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \dots) - 2(\frac{1}{4} + \frac{1}{8} + \frac{1}{12} + \dots)$$

$$\frac{3x}{2} = (1 + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \dots) - (\frac{1}{2} + \frac{1}{4} + \frac{1}{6} + \dots)$$

$$\frac{3x}{2} = 1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \frac{1}{5} - \frac{1}{6} + \frac{1}{7} - \frac{1}{8} + \dots$$

$$\frac{3x}{2} = x \text{ from the definition}$$

$$3x = 2x$$

$$3 = 2 \text{ since } x \text{ converges to } \ln 2 \neq 0$$

Therefore arithmetic is false.

When in Doubt

Have you ever had one of those final exam questions where you just have absolutely no idea how to do it; where it doesn't even look like part of the same course you took; where you know you won't even get part marks?

Well, even mathNEWS can't give you the answers to those questions, but we can help you to get part marks on them. Here, for the first time, in living colour, is the mathNEWS "When in Doubt" list for a few selected courses: when in doubt on a question in a specific course, do the thing suggested on the list, because everything in the course involves this action.

MATH 130A When in doubt, apply the Mean Value Theorem.

MATH 134A When in doubt, prove modular convergence.

ECON 101/102 (Larry Smith's section only)

When in doubt, choose the optimistic/pro-Canada/pro-freedom-of-choice answer.

(Note: Sorry, Larry, I *tried* to get through a whole term without cutting you up.)

CS 131/132 Who cares, these courses don't matter anyway.

MATH 230A When in doubt, prove that the first partial derivatives are continuous and the Jacobian doesn't equal zero.

MATH 234A When in doubt, find a basis. (For second term, find an orthonormal basis.)

STAT 230 When in doubt, list the sample space. (For second term, assume a normal distribution.)

ACC 281 When in doubt, go against GAAP.

ACTSCI 221 When in doubt, draw a time diagram.

MTHL 100 When in doubt, quote Latin.

MTHL 102 When in doubt, say the result is invalid because it wasn't a controlled experiment.

Ducky

The Letter Exchange

Read through hundreds of personal letters. Read about hundreds of interesting people. Phone up only those that seem interesting. Here are some examples of the messages some of our clients leave:

"Hi! I'm a first year engineer and I'm looking for a personable pipe wrench to share the rest of my life with."

"Hidiho! My name is Bubbles! I'm a third year arts student. I am five foot six and have cascading golden hair and ice blue eyes. I really like tall intelligent men preferably named DXXX."

"My name is Faith. I am a flaming feminist and I hate men! Feminists who only only seek equality lack ambition! Women Unite! What? Hey, quit shoving! What do you mean this isn't the imp'tint forum?"

"Hello. I am a mild mannered reporter for a great metropolitan newspaper. I am six foot two and wear glasses and still say 'gosh' and 'golly' because I am not a believer in the use of harsh language."

"I'm a third year CS major named Linda. Fred! Oh, Fred! Where are you?!"

Subscribe now and get hundreds and hundreds of listings! Mail 1 cent plus seven thousand dollars postage and handling to:

University of Waterloo
mathNEWS office
c/o Sucker Handling

The Grey Pilgrim

Long Live the CFL

So you think the CFL is dead? Well, think again! (Warning to engineers; do not overexert yourselves in doing so.) Last Sunday's Grey Cup cliffhanger, which saw the Winnipeg Blue Bombers upset the British Columbia Lions by the smallest possible margin of victory, is clear evidence that the league not only has a prosperous future, but also provides much finer contests than its American counterpart.

True CFL fans sacrificed valuable final exam study time to be awed by the 76th annual classic. We sat on the edge of our seats as the CBC airwaves transmitted an exciting 60-minute see-saw battle out of Ottawa's Lansdowne Park. As the Eastern Champions squeezed out a 22-21 triumph, Winnipeg fans celebrated ecstatically, while B.C. fans cried in their beer and Argo fans grieved, "That should have been us!"

All in all, it was a very entertaining affair which went down to the wire; this was also the case in last year's CFL finale, when Jerry Kauric booted a field goal in the dying seconds of the game to lead the Edmonton Eskimos to a 38-36 triumph over the Toronto Argonauts.

So why all the criticism of the CFL? More importantly, why all the hyped-up hype about the NFL and the (yecch!) Super Bowl? Why is it that when Canadians talk about football, names like John Elway, Joe Montana, Eric Dickerson, Lawrence Taylor and Dan Marino are mentioned more often than Gilbert Renfro, Matt Dunigan or Sean Salisbury? How many of you NFL die-hards losing sleep over your pools and worrying about whether Pittsburgh covered the spread against Kansas City this past weekend have even HEARD of Sean Salisbury?

Still think the NFL is a better commodity? They may be a lot better off financially, and it is probably a safe bet that this year's Super Bowl will once again draw top ratings, but let's consider what's actually put on the field. Having a look at the past few Super Bowls, we find a trend in games that were decided before the end of the first six-pack: 38-14, 39-20, 46-10, 38-16, and 38-9 are the scores of the last five so-called NFL classics, won respectively by Washington, New York (Giants), Chicago, San Francisco and Los Angeles (Raiders). None of these games can even begin to be compared with the last two Grey Cup nail-biters.

Based on these results, we can project the following scenarios to occur early in January:

- The release of the Buffalo Bills' "Buffalo Bowl Rap", in which Jim Kelly does a D.J. Jazzy Jeff-type chant, which rapidly induces vomiting from those viewing it.
- News headlines dominated by Bowl-crazed maniacs who sell their kids, dive headfirst onto huge blocks of concrete and prance naked around the streets for 14 consecutive hours in order to obtain 85%-obstructed-view 716th-row game seats.
- Chicago trouncing Buffalo 31-10, setting records for most yards total offence and largest number of "football" fans bored out of their skulls.
- A handful of idiots running around saying "The CFL sucks! (Who the living hell is Sean Salisbury?)"

Do we really need this? No. The fact that 50,649 fans would turn out for a CFL game held in a city where football has been virtually atrocious over the past few years says it all. So to all you fans who enjoy watching real football, find something more valuable to do with your time on Super Bowl Sunday; assassinate an Artsie, or build a bonfire of Imp'tint's. Stop worrying about the NFL coming to Canada, and thank heaven we've got a great league!

The Medieval Gladiator

Blame Your Prof

Sung to the tune of
"If you're happy and you know it, clap your hands"

If you know you're sick of midterms, blame your prof.
If you know you're sick of midterms, blame your prof.
If you know you're sick of midterms,
and you want to see him eat worms,
If you know you're sick of midterms, blame your prof.

If you've had enough assignments, blame your prof.
If you've had enough assignments, blame your prof.
If you've had enough assignments,
and you'd like to beat him senseless,
If you've had enough assignments, blame your prof.

If you haven't slept for 3 weeks, blame your prof.
If you haven't slept for 3 weeks, blame your prof.
If you haven't slept for 3 weeks,
and you'd like to kill off 3 geeks,
If you haven't slept for 3 weeks, blame your prof.

If you're flunking out with ease, blame your prof.
If you're flunking out with ease, blame your prof.
If you're flunking out with ease,
and you'd like to break his knees,
If you're flunking out with ease, blame your prof.

If you're sick of sodomy, blame your prof.
If you're sick of sodomy, blame your prof.
If you're sick of sodomy,
and he needs a lobotomy,
If you're sick of sodomy, give it to him. (The lobotomy)

Sludgebucket and Co.

mastHEAD

Well here it is. My (possibly) last issue editing **mathNEWS**. I'll be moving on to bigger and (hopefully) better things as MathSoc President next summer and leaving the editing duties in the capable hands of Mr. Steve Smitherenes. He's been the pseudo-Editor of both this issue and the previous one, if you hadn't noticed, and he's done a damn good job so far. I'm looking forward to seeing what he does with the paper next summer as, I hope, are all of you.

It has been quite a job, being Editor. I've come through a few budgetary problems, understaffing, and general nervous breakdowns with more than a few scars. All in all, though, it's been a fun and very rewarding experience. I've enjoyed working with the **mathNEWS** staff, especially Frank, Stuart, Chris, and Dave, and I hope that the new people that I've brought to the paper (Steve and Mike) will have as much fun with it as me. I'll still be writing for **mathNEWS**, only now it'll be a less stressful and perhaps more prolific contribution (no jokes Chris). But for now, 'nuff said.

Tonight's all-star lineup: Steve Green, Mike Dean, Dave Weil, Rob Del Mundo, Frank Letniowski, Paul Sahota, Karen Wasslen, Doug Hopkins, Carolyn Duke, John K. Herbert, Andrew Tron, Dave Balkwill, and Robert Parker. Many thanks also go out to those who did it by remote (eh, Anne), that is, all of you who contributed articles, letters, songs, top ten lists, prof quotes, ultraclassifieds, or whatever. Gratuities go out to Marion and her GS crew, Little Caesars, DCS and the I/O room staff, Q107, and the friendly green man.

Happy holidays to all of you. Don't let finals get in the way of that all-important shopping and the even-more-important partying.

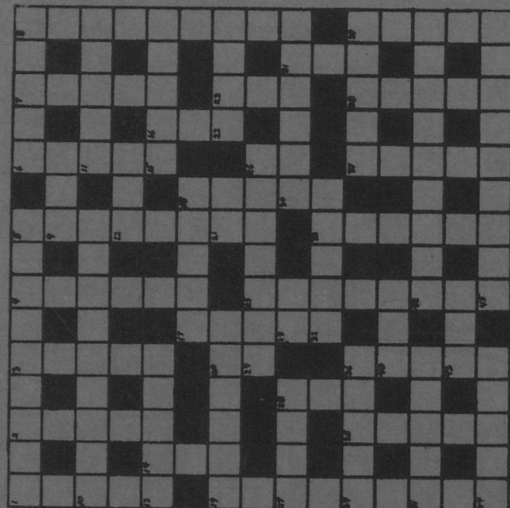
That's a wrap!

Down

1. Sub's bane is to fly around North Pole (5)
2. I am, I acquire, I sire (5)
3. A flower, not before, with a science fiction replacement (5)
4. Flip in a French green (6)
5. Trapper sped back again in three directions (8)
6. Riddled machine guns' homes (5)
7. This way, you are in memorization (5)
8. The orange agent for Leppard is strange continental work (9)
14. Oh, you are for us (3)
16. Guy's name is up Harvard's buddy (3)
17. Quintuply directed doesn't make any (5)
18. Directions for quiet banquets (5)
19. Gold to a welcome chip works by itself (9)
20. That is two vowels (2)
23. Bluster, for example, is not part of this clue (3)
25. Princess' nuclear molecule (8)
26. Canadianism (2)
28. We can stop them! We really can!! Just let us spend more money!!! (3)
31. Every effort (3)
33. It takes long to open the French gallery (6)
35. Bandage a non-commercial speech (5)
36. What the masses are (5)
37. Study without leisure (5)
38. The smell of a city (5)
39. Fly, Eddie (5)

Across

1. Below the Spanish sea, in Earl of Sandwich (9)
6. Defensive organization is not commercial (5)
9. Born even backwards (3)
10. An example in aborigines' vetos (9)
11. Kill tobacco (5)
12. It isn't really heavy enough for a back pain (3)
13. Huey's blade, backward and forward (5)
15. Metal in a soggy snow-storm (5)
17. Look for the sun in the east (5)
19. Imp'tint staffer (6)
21. Each Chaldean god (2)
22. My continental plateau (4)
24. Approve the last Cockney mare (7)
27. A decimal point is often surprising (4)
29. Say yes to metric (2)
30. Jethro ate his esophagus (6)
32. Nobles' beads have lost their softness (5)
34. Doctor's expert system is backed by newsmen (5)
37. A word such that beer is flat (5)
40. A continent, not their saint (3)
41. Sylvan components periodically look back at a prophet (5)
42. Get going, you mixed-up elliptical dwarf (4,5)
43. Centre of earthquake (3)
44. Growths on Gridmaster streets (5)
45. To verify a spouse is a winning move (9)



The End of Gridcomments is Nigh

There were 27 submissions this week: 21 of them were correct, 5 of them were incorrect and 1 was a solution to the previous GridWord. This solution was submitted after production night but before the issue hit the streets: while I admire him for being able to solve the GridWord, I do wish he were more punctual. The submissions for this GridWord were up from the last time, and from what I heard, this GridWord was easier than the ones PSYDA set. This lends credence to the contention that Jolt is a hallucinogen: next time you see PSYDA, ask him how much of the stuff he has consumed.

The brilliant ones were: Jak & Lu; The Spoon; Paul Skratch with a little help from my friends; The UPA; BP; Winston Jr, Solar Panel, and the Romanian Bagpipe Brigade; Vistlik the Romulan; dB; p1 & Zorac; Thinkdude; Deisel & The Illustrious Co-D.M.; Captain Chaos and his killer fuzzy bunnies from hell (with help from Billo); Gofar & Gofast (with some help from RUDY); FIZZ & RAGE; Graeme S. Perrow; Jane Brayne; Luke Robertson; Icer; R+S; Carlos Donald; and finally The Preacher. Those who supported our rural economy were: MJ & SANJI; NO NAME (but that's paradoxical); Less Than Epsilon; Channel 17; and Jammer. G.S. Perrow is the source of the late submission.

Favourite Pick-up Lines: The one whispered in the Molson Canadian ad (we know what she said and it works!); Did you know I came in second in the Canadian National Breakdancing Contest?; "What's your sine?"; Hi, what's your favourite GridWord clue?; "Hey, baby, ever done it tar?"; I'm from the future: if you don't go out with me tonight, the entire course of Earth's history will be disastrously changed; "Hey doll, is this guy boring you? Well I'm from outer space" Z. Beeblebrox; the Drive-in Window at McDonalds: Hey babe, I'm in Act. Sci. (never works); I'm going now - are you coming?; Want to see my fuzzy bunnies?: It's my birthday babe, how about a piece of ass?: F*** me if I'm wrong, but isn't your name Lisa?: F*** me if I'm wrong, but isn't your name Mary? (works on stupid girls); You can lean back on me if you want!: So, what do you like for breakfast?: Slurp!: It's too late for you to go home - might as well stay (it worked: 20 months of bliss); Sugar, you're so sweet, I'm getting cavities just looking at you: Your father must be a thief, because he stole the stars from the skies and put them in your eyes: Have you seen the keys to my Porsche anywhere?: NISSAN KING-KAB: Guess what colour underwear I'm wearing?: Mary Ann (okay, so I liked Favourite Gilligan's Island character better): Hey babe, what kind of toothpaste do you use?: F**K me if I'm wrong, but is your name Sue?

Comments: We knew the secret to solving these a long time ago: Casper has a hickey!: Have you decided on four-way symmetry now? Good clues though: 3D was the last and it was a groaner!!! Please, no comment: Macho models, in the buff and raring to go!: Penicillin is the Romulan spelling (is that what I got wrong?) [Yes -CY]; s'all right: From the last Gridword: PENNED has 2 N's (unopened has only 1 in that position); Pourquoi?: Resistance is useless: wee bee new greedmaster champion from heell ... h. Lisa!: I can't believe you broke my bed!!!: C & O; connect the dots for smart people: And then the Chinese guy said "Well if I didn't have a hard on, we'd all be dead": ...and the rivers do flow to the sea and the sea is not full: Does it work? Well, we're getting married in July. Depends on who you are and where you come from: Too easy - I could do it all on my own: I dare you to try that line!!; at k is an even better place to do GridWords: Don't like 12 across, don't understand 3 down, 24 down, you can't count ... [rest of comment deleted, thank you Sheila Copps]; GridWord: helps relieve post-election syndrome: Record time: 1/2 stats class [another 1/2 stats class, and you may have gotten it right -CY]; My first time, is it addictive? [Yes -CY]

This week's winner is Jak & Lu. Come to MathSoc office, not math-NEWS, to pick up your prize. For this week's GridWord, we have a guest writer - The UPA. Since this is the last issue of the term, no prizes will be awarded. But hey, you do these for the fun of it (and for a lack of anything better to do in those Friday morning classes).