## math N N

Volume 39 Number 1
Friday 20 September 1985

# DEC RAMBO in <br> fROSH 8LOOD PART 1a 

 Evary Thursday NightInside!

* Club 750 petition coming!
* GridWord, Geek, Gooch and other Goodies
* Heeere's Springsteen
* ... and bunches more!!


## LookAhead

## A quick look at what's happening



Masthead Continued: Thanks a gain every rnefor pitching in. You werall yreat things could not have been beter. Nick angell os. ef Ypore arondering" streal in the suried is real gommalisn" then juat look here, and if your fird it don t loose it. .s..............

## Prezz Sezz

Here I am, stuck in this job for a second term. Oh well, we'll try to make this term as tolerable for everybody as possible. This column is intended to keep you informed about the behind-the-scenes happenings in MathSoc and the Faculty.

## The lounges

As you may have noticed, the old smoking lounge on the third floor has received new carpeting over the summer. In fact, new furniture should have arrived by August as well, but according to the latest reports it will arrive next Tuesday. So, be prepared for the Grand Opening of the Math Undergraduate Lounge! Both streams' Councils decided that both the lounges (the C+D as well as the carpeted lounge) should be non-smoking. Hence, all the ashtrays have been removed, and hopefully all of you will respect that decision. New ashtrays will be installed in the hallways as soon as possible. Incidentally, the carpeted lounge will be closed from 1 am through 7 am every night to protect it from vandalism.

## Social events

Our social calendar for the term is still in a state of flux since the Feds have not held a booking meeting for Fed Hall (aka Club 750). However, we do have Oktoberfest at Bingeman Park on October 17. This is a student night, and in attendance will be Math, Engineering, Brock, McMaster, Western, ... Tickets will cost $\$ 5$ and include a bus to Bingeman and back. We also have a Wine \& Cheese on November 2 in the South Campus Hall. Don't Panic (in Big Friendly Letters)! The other dates include a British Pub Night and End-of-Term Pub.

Tom Haapanen
The Prez

## Co-Op Resumes Due

During the summer term, the Department of Co-ordination and Placement enforced all submission deadlines, especially those for resumés. This term these submission deadlines will again be enforced.

If you submit your resumés late, they will not be accepted. This means that the employers to whom you apply through the "Want Ads" and late postings will receive Co-operative Student Work Records and your marks, but not your resumé.

The change is necessary because over the last few terms late submissions have increased to the point that the processing efficiency of the records section of the Department has been seriously eroded. This, of course, affected service to both students and employers.

Resumés for co-op students in Arts, HKLS, and Math who are seeking employment for the Winter 1986 work term are due at Needles Hall reception desk by $4: 30$ pm Friday September 20.

Janet Cann
Student co-ordinator
Needles Hall

## FeedBack

(mathNEWS invites feedback from its readers on its articles, or any other topics. Please send them to mathNEWS via the BLACK BOX on the third floor. Corrections may be made for spelling, but not for grammar. mathNEWS reserves the right to edit any feedback received, although we will do our best to fit the entire submission in. Please keep your feedback brief, and as grammatically correct as possible.)

## Dear mathNEWS:

I am writing concerning the purile behaviour of those subsimian miscreants known on campus as "Engineers" (I apologise for the use of such foul terms, but am left no other choice). My shock at the uncouth conduct of these boorish delinquents cannot be adequately expressed in the English language.

Some of their behaviour is understandable, I refer of course to their lust for pink ties. I know of the honour and privilege, comradery and general good times that come from being a Mathie, and their jealousy is quite justified. But little do they realise that merely wearing one of our ties does not make them a mathie (something they indubitably all want to be deep down). Nonetheless, the storming of an otherwise informative and enjoyable lecture just for the purpose of parading their pretentiously overgrown monkey wrench around on the backs of houligans so ashamed to show their faces they were masked, is quite unforgivable.

The truly repulsive violence perpetrated by these churlish, derelict pariahs of the university community was what dismayed me the most. More than one innocent mathie was injured, one ill-fated member of our alliance to the point to broken bones in this unspeakable rampage! Such brutish, criminal conduct must not remain unchastened.

Thus I call from my lowly station for all Mathies to unite against this evil tyranny. I call upon you all to arm yourselves with pink rust paint, in balloons, in spray cans, and to put this secret society to shame by rendering their mascot, the uselessly oversized monkey wrench (no doubt a symbol of the inflated ego of these witless disgraces to the University community) a beautiful, symbolic PINK! Yet, do not descend to their base and illegitimate level, but do it with a grace, style, and with aforethought that will put these unpolished savages to further dishonour. I call upon the unbridled genius of Waterloo Mathies to seek new creative heights, to a timeless rebuttal of the engineering brigade that will be told by our grandchildren.

We must not let these felonious bandits go on their way unscathed. Rally around our apt and everlasting symbol of the Pink Tie. Hang their hardhats from the topmost heights of the Math Building, adorned in pink paint so that all might know that these boisterous and contemptable common criminals have been disgraced and humiliated. The endeavor is now in your hands Mathies. Remember always, creativity, originality, discipline and stalwart devotion to our cause and symbol. We will be vindicated in the end!

Phred Phrosh

## mathNEWS:

"Bombshelter"-images of bodies twisting through a postnuclear rum-soaked morning. "The Turret"-hundreds of Larries and Ladies looking down from a majestic pub onto their high school campus. And "Fed Hall"-so many students passing the time waiting to return to their lectures in the morning. Tom Allison's final decree was to sentence us with a name almost as stirring as "Village 2" (even the zoo has its Great H).

Do not despair! As a final act of Fed bashing (now that we've settled into a peaceful co-existence with Sonny \& Co.), a petition is being distributed which will ensure a referendum on the name of the barn. We propose that the Federation Hall be renamed Club 750 (klub-SEV-en-FIF-tea) and Earl Grey be put on the menu.

If you wish to have a part in the renaming of Tom's Pleasure Palace rather than just dumping seven and a half bucks each term into its coffers, then lend us a John Hancock.

The Turnkey Desk and each society office have copies of the petition. Suggestions for logos and other names are also welcome. On campus, send mail to S1 305, V1.

Vinko Tsui, Math 2A
Jeff Joseph, Eng 2A
Paul Davie, Sci 2A

## RapidFire

## Quick descriptions of some happenings:

- Computer crime presentation: Detective Sgt. J. H. Hickling will present a short film and lecture on the topic of computer crime and the role of law enforcement agencies in fighting this type of crime. It takes place Wednesday 25 Sept from 6-7:30 pm in MC 2065.
- The African Walk for Life takes place on Saturday 21 September (tomorrow). Those walking will meet at the CC at 1 pm , and the walk will begin at $1: 30$. Contact the Feds (in Campus Centre room 235) if you would like to participate.
- Road Trip to Niagara Falls will take place the week of 23 September. Watch out for more details at MathSoc.


## UltraClassified

Welcome to the mathNEWS Classified column. If you have a personal ad to put in mathNEWS, just drop it in the BLACK BOX on the third floor of the MC, and watch out for it in an upcoming issue. This service is free!

Ride Available at 10:30 MWF or 10:00 TR from Lakeshore in exchange for parking fees ( $75 ¢$ per ride). Call Carlo at 8886713 if interested.

Diane Dunford, please call Jim Jordan at 884-7791. It's been a long time since he's seen anyone from RLDHS.

# Alternate Uses of Math - Part 3 

## Multi-Dimensional Art

Each person viewing a painting sees something different. One might not see all the geometrical shapes, another might see the eight colours as only six, and yet another might not see the individual colours at all but rather see an overall unity of pattern.

But however one obtains a view of this picture, there is a multi-dimensional structure (a geometrical space) to go along with it. This space is large enough to accommodate all critical views. To give you an idea of what I am talking about, I shall examine a single painting by Mondrian, his Composition, Checker-board, Bright Colours 1919 (see figure below).


We begin by noticing that the picture was constructed by the artist allocating one of eight different colours to every one of 256 squares on the canvas. We shall soon be convinced that this allocation is not aimless nor random but that it produces specific structures of a mathematical nature.

We therefore identify a set C of colours which we shall identify by the following list:

\[

\]

At the same time we shall divide the canvas into a set of geometrical shapes and we refer to this as the set $X$. Since the canvas is divided into squares by the artist it is probable that these shapes will dominate our visual response (but it need not).

As a very simple example, suppose that we 'see' one square, the whole canvas, in the set $X$. If we write $X=\left\{X_{1}\right\}$, we obtain a weighted relation $\lambda_{1} \in C \times X$ (with $\lambda_{1}$ being the number of squares of each colour) as follows:

| $\lambda_{1}$ | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $X_{1}$ | 19 | 29 | 54 | 40 | 13 | 43 | 15 | 43 |

the total weights adding up to 256 . By taking different slicing parameters for the colours we obtain a series of sets of colours.

The square $X_{1}$ can be of dimension (dimension being one less than the number of colours seen) not exceeding 7, depending on the slicing parameter.

Slicing at say $\theta \geq 20$ corresponds to 'seeing' only the colours grey (C2), pale yellow (C3), yellow (C4), dark blue (C6), and red (C8). In other words, only if there are at least 20 occurrences of a colour in $X_{1}$ do we see it. The possible analysis can be listed as follows, for typical slicing parameters.
For each colour $\quad \operatorname{dim} X_{1} \quad$ Colours seen in $X_{1}$

| $\theta \geq 10$ | 7 | $<\mathrm{C} 1, \mathrm{C} 2, \mathrm{C} 3, \mathrm{C} 4, \mathrm{C} 5, \mathrm{C} 6, \mathrm{C} 7, \mathrm{C} 8>$ |
| :--- | :--- | :--- |
| $\theta \geq 20$ | 4 | $<\mathrm{C} 2, \mathrm{C} 3, \mathrm{C} 4, \mathrm{C} 6, \mathrm{C} 8>$ |
| $\theta \geq 30$ | 3 | $<\mathrm{C} 3, \mathrm{C} 4, \mathrm{C} 6, \mathrm{C} 8>$ |
| $\theta \geq 40$ | 3 | $<\mathrm{C} 3, \mathrm{C} 4, \mathrm{C} 6, \mathrm{C} 8>$ |
| $\theta \geq 50$ | 0 | $<\mathrm{C} 3>$ |

In like manner if a viewer 'likes' the colours dark blue, white, and red, then he might see the structure of $X_{1}$ by slicing parameters $\theta_{5} \geq 5, \theta_{8} \geq 5, \theta_{8} \geq 5$, and the rest (which he might not want to see?) by $\theta \geq 50$. This particular slicing gives
$X_{1}=<\mathrm{C} 1, \mathrm{C} 3, \mathrm{C} 6, \mathrm{C} 8>$ and $\operatorname{dim} X_{1}=3$
Although the above example is extremely simplistic, it hopefully gives an idea of how people's perceptions of art can be analysed mathematically. Since nobody normally views paintings as one block, the above analysis can be done and extended viewing the painting as any number of sub-blocks or other shapes. The distribution of colours among any subset of the shapes can be analysed in a mathematical manner which cannot be described here for a lack of room. As can be seen, even pure art cannot escape from the insidious spread of mathematics.

The above information was obtained from:
Atkin, R. H., "Mathematical Structure In Human Affairs", Heinemann Educational Books Limited, 1974, pp. 65-68

## Waterloo's Own Springsteen

They've been comparing it to The Beatles' North American television debut on the Ed Sullivan Show but for Dr R. Goebel, a computer science professor here at UW, August 21 was just another day of artificial intelligence. It was on that day that an otherwise uninspiring professor, travelling with four other artificially intelligent UW professors (under the power of thousands of students' computer user's fees) to an artificial joint conference on artificial artificial intelligence, made his singing debut on Johnny Carson's Tonight Show.

With the song "The Intergalactic Laxative", which succeeded in "stumping the band", Randy Goebel is destined to rocket into the same fame that Wham and Madonna have achieved with their own forms of artificial intelligence.

Other guest on the show that night, including George Carlin, Chuck Yeager and Topol, the smoker's tooth polish, were anti-climatically outshone by Randy's performance.

It didn't take long for all manner of rumours to circulate here on campus. Among the most believable rumours are that of a video to be directed by either Steven Spielberg or Sergio Leone, and the possibility of a duet with Aretha Franklin. Randy could not be reached to comment on either of these rumours.

## The Gooch Corner

You may have been expecting to read the column of one of my predecessors here. Fortunately, this week you won't have to.

Against the better interests of mathNEWS, this widely respected publication has elected to take on the one and only Goochfrosh (who, of course, is myself) as one of its intrepid writers. Whether or not this reflects an uncharacteristic desire on the part of mathNEWS for hate mail of an unprecedented magnitude remains to be seen. However, at this point in time I can only applaud the fact that mathNEWS has chosen the Goochfrosh for this task [why me?-ed].

Many of you are indeed quite unfamiliar with me, and for the benefit of you, I shall attempt to describe my intentions for this column as specifically as possible. In future weeks, you will discover that I have a very unique writing style. Without going into detail it would be safe to say that my editors may soon be prematurely gray [not likely.-ed].

You may also notice that there is no picture of me accompanying my column and for that I must apologise. The editors thought that a photograph of me would take up valuable print space and would distract readers from the contents of my column. With that point I must concur, as if young women out there find such individuals as Corey Hart and Wayne Gretzky attractive, then one glimpse of my handsome face would send them spiralling into fantasy overload.

But now, let's examine the contents of my inaugural column. Please note that if you experience great difficulty in accepting reality, then I'm afraid my column is not geared to your tastes. You'll have to turn to someone else to pander to your petty prejudices, because I would find the prospects of my doing so quite revolting and infuriating.

When one arrives at such a widely respected institution as the University of Waterloo, one expects to see certain things. One expects to see at least some semblance of order and decency . And, true to my expectations, the Faculty of Mathematics students conducted themselves with honour and dignity.

It must therefore be an embarrassment to be an engineering student these days. Aside from conducting themselves during Orientation Week with all the class of mindless cavemen boors, everything they do seems to backfire on them.

What I am referring to here is the copyright violation of an article printed in that famed and fabled dishrag, enginews. I find this situation so hilariously funny I cannot fully express my feelings in words. So, to enginews, I dedicate the following 21 laugh salute:

## HeeHeeHawHaw!HeeHeeHoHo!HoHeeHawHo!YukYukHoHo!

## HawHeeHeeHeeHaw!!

If I ever need a good laugh, now I know who to turn to. Best of luck with the impending issues of enginews. It couldn't happen to nicer guys.

Unfortunately, like a picture-perfect sunrise which is over far too quickly, so too must the original "Gooch Corner" draw to an end. The truth of the matter is that my instructor is now looking at me very strangely. Thus, I must end this column and pay closer attention to class.

Until my next column, remember that the Goochfrosh is always watching you. (heh-heh-heh).
goochfrosh

## CSC Flash!

Hi , everyone, and welcome back to a new term and the return of CSC Flash! after a hiatus of some terms.

First, some advertising. You can become a member of the UW Computer Science Club (a student chapter of the Association for Computing Machinery) for a whopping $\$ 1$ per term. Simply show up at MC 3037 and ask for someone who can exchange a membership card for your dollar.

The CSC has provided 'Bun (Honeywell) tutorials for students who have not faced the 'Bun before. These are a quick, painless introduction to logging on, using the file system and getting FORTRAN to work for you. If you want another session to be offered, suggest a time on the sign posted outside the door.

The free CSC consulting service (pop in, ask a question, get a wise-crack answer, then get a serious answer) is always available if there's someone in the office. If there's no one there who can help, the referral service is free, too.

Grand plans for the term include guest lectures by members of the ACM on many and varied topics, and an open computer Othello tournament on November 9. More on these in later CSC Flash!es.
$\dagger$ Unix is a trademark of AT\&T Bell Labs

## Football Warriors Back In Form

Ah, September. Chilly nights, warm sunny days and the crunch of football Warriors dying on the grass of Seagram Stadium are all a part of the fall term at Waterloo. This year's football season seems to be just as dismal as last year's as the team lost 59-0 to Laurier in the Shinerama Bowl last Saturday. Waterloo even lost the attendence challenge to Laurier by something like 1200-1000. Oh well, it was just an exhibition game.

The real winner was the Cystic Fibrosis society, which will receive $\$ 20000$ from the week.

Actually, the game wasn't totally unproductive for Waterloo. The intrepid Warriors Band introduced a new cheer as Laurier scored their third touchdown: "It's alright, it's OK, you're going to work for us someday."

The football Warriors open the real season tomorrow at Seagram Stadium against the Windsor Lancers. The Warriors haven't traditionally fared well against the Lancers, but they haven't fared entirely poorly against them, either. Game time is at 2:00, with television coverage provided live by CHCH and Dick Beddoes (he'll be more exciting than the game).

Dwarf's prediction: Windsor by 4. (When does basketball season start?)

> dwarf

ISSN 0705-0410
mathNEWS is a bi-weekly, sometimes triweekly, publication funded by, but otherwise independent of, the Mathematics Society at the University of Waterloo. Content is the responsibility of the mathNEWS editor. Any opinions expressed herein are those of the authors and not necessarily those of MathSoc or mathNEWS. Send your correspondence to: mathNEWS, MC 3036, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1 or to userid mathnews@watdcsu on USENET.

Editor: D. Richard Kuzell

## Slash's Shoebox

(This is a new column by staff writer Slash Sinatra. In his own words, he "got stifled by having to write in a musically relevant vein". The new mandate, then, is a "verbal sketchbook". The odd record review "may still appear", as will the ever-popular end-of-year musical wrapup, but Mr Sinatra felt that his musical views were too self-alienating, whereas his other topics were better received, so he "went with the popular vote". - ed.)

## How I Spent My Summer Vacation

'Summer!' The sky flooded the street with spectral effluence: the people hovered in the sky, and their faces were aflame. Mathieu breathed a green and living perfume, a youthful dust: he blinked, and smiled. 'Summer!'

\author{

- Sartre, The Age of Reason
}

Submitted for your approval. One grey-on-green megalith draped in a gossamer frock of paisley. Unending paisley. So vogue it's frightening. From the used-clothing shops to mass-marketing-long strands of pearls, ersatz VCs, and pillbox hats. And paisley: from the Talking Heads to my boss's tie, it defined the summer of 1985 . Let your hair grow, and tie it at the back in a tiny ponytail. The Strawberry Alarm Clock and patchouli oil; look out, psychedelia's back-alive and well in Swingtown T.O.

Neapolitan lifestyle in slippery city. The air hangs soggy and greasy like the arbourite in some Parkdale hash-house. The hope for an eternity where all the pale-eyed, pointyheaded yuppies who go to their nine-to-fives to impress and who spend the weekend getting sunburns, shopping for furniture, or painting the kitchen are replaced by a new age of smarter, cooler, more aware citizens that we hopefully represent (how dare the third-rate Star, amid errors galore, presume to call us yuppy?) keeps me going. Sooner or later these gnomes will realise that they grew up too fast; it's not cool to smoke dope at thirty- five, neither is it cool to listen to CHFI.

A slimy teenage messenger-boy speeds by on his mountain-bike, his walkie-talkie garbling frenetically in some ancient tongue. Bums in Nathan Phillips Square gather in swarms, spending their meagre spoils on stale bread to feed the pigeons, with whom they share some kind of common bond, or bragging about things they've never done. Some just scowl, and tell the executive stuffed-shirts to "fuck off". Other people, who wish they were not working, also proliferate there at lunch hour, reading relevant books, or listening to irrelevant music.

Ten past five finds the Slashmobile screaming up University Avenue, hitting all the yellows and oozing out a smooth groove line. The Vuarnets cut the glare nicely and allow me to survey the milling populace, most of whom are ugly.
"Hey! How about those Blue Jays?"
It's amazing how marriage has a way of dulling the senses. And aren't weddings the tackiest things in the world? (except maybe for the wall decorations in The Morrissey, otherwise a very obnoxious yet cool place and a good substitute for the "Stranglo"; the kind of women I like best are those that dig

## The Morrissey).

No bitterest pills for this guy this été; no bowling trophies and just smiles, old films, and groovy, groovy tunes. Spin weekends to home, Waterloo, Stratford, Bobcaygeon, and Ottawa (a neat-o place) helped me shake the wanderdust from my beat-up deck shoes. How could it be going by so quickly? I've done a hundred million things, and yet I've done nothing at all.

Steeped in the city's aura, and commanding a regal view of its concrete skyline, S knows how to wield her schoolgirl charm to compensate for the gaps in her personality. Not exactly a "dedicated follower of fashion", but there are few whose fashion sense is keener. Her groupies, wide-eyed, bathing in her glow, are many; her friends few. I count myself among them. Boy is she cool.

A is a gem, not to be dulled with faint praise. Intelligent, witty, and cool. No one really knows her. Everybody loves J. They just can't help but get caught up in her kinky charm. They don't realise that she has more "gold" beyond the bent persona, and hence they will never appreciate it. Also don't be fooled; she rarely says what she really thinks of some people. Most of her opinions are sound, however. C is a keen conversationalist. She knows how to structure the flow of two-way chatter so that the lulls are few and welcome when they come. Coming from NB has given her that barefoot, sand between the toes slant on life that is so rare down here in SWO, and that's refreshing. $R$ is really a lovely girl. She has tried to build walls around herself to hide her distinct naiveté. B seems to think she is not a lovely as she once was; I believe she is, in fact, lovelier. She returned, prodigal-like, to the Basin, to frolic and maybe to mature. Now she is back. My hopes go with her, and for the future.

J is as nice a person as you would ever want to meet. She gives of herself unhesitatingly and is always smiling-a genuine smile. Why can't the world know more like her? Or does it deserve to? I began to doubt my ability to keep from falling for N when she started writing me more frequently. She does, however, "travel in her own orbit", and I feel very unsure about the consequences of this affair, should it develop. We shall see; I frankly admit other interests, and that may slow the process.

Yonge Street at night. Plastic whores peep out of doorways, concerned that you don't have a "date". A bald young man expostulates to a bald young woman in a scummy deserted pizza joint. Ridiculous motorised jukeboxes, chock-a-block with disconnected adolescent redneck types, zoom and squeal, slowly making their way along, easily lapped by the pedacab pretty-boys and their fiddy fares. And lights, lights, lights.

Queen Street West. Once the jetty of the avant-garde set, the breeding ground of style and ingenuity. Now it has become a horrid pastiche of itself, with dazed neophytes who have forsaken Yorkville for greener pastures, and scowling poseurs in olive drab vying for a non-identity amid the trendy and horrendously overpriced fashion cubby holes and knickknack shops, the used whatever stores, and the filthy oldsters who have seen them all come and go in waves. The Bloor Annex, for its own part, is really a much cooler place these days, and is becoming incredibly vogue with the arty types. The crowd can still be seen in the cafés on Queen West, but the anarchists have moved on, leaving only their graffiti as a remnant of the glory days.

## I Am Curious Gëorg A Fictional Column

Hello, may I introduce myself. My name is Gëorg Mandrive (pronounced "gayorg", like Captain Von Trapp in The Sound Of Music), I am twenty-seven years old and I am a fictional character. I first appeared in the 1974 novel The Music of Farewell and since then have written a few stories of my own-you may remember the serial Nobodaddy that mathNEWS published in six parts last winter term. Well, this ain't no Nobodaddy, so those who expect asinine heroes and liquifying cats will be disappointed.

For those of you who are curious about what it's like being fictional, I must emphasise that it's not very different from being non-fictional. After all, I can tread the same ground as you, I can talk to you (at least on the printed page), and I can occasionally enjoy an evening out on the town with some of my UW friends. One thing I do not approve of is mixed marriage-if a fictional man and a non-fictional woman were married, what would their children be? Prefaces, introductions, forewords? I'd rather not find out. Let me just say that I find it quite satisfying being a fictional character. I can work my own hours, I can occasionally perform miracles, and (best of all) my author lets me have the weekends off.

And so it's off to the races with this first column. Last Saturday, while my friend Barton and I were strolling in the sun, the conversation touched on the Miss Oktoberfest Beauty Pageant controversy that has recently been fanned to life for another term by the Imprint. It occurred to me that it really doesn't matter what the Federation or the Administration do here-the plump burghers of KW will only find another place to hold the pageant. Bart countered that what counted was the protest itself-the petition, the articles, the media limelight-and that the truth of exploitation was being hammered home. All well and good, said I, but the thing will go on just the same,
and so will the Miss Norfolk County and Miss Teen Canada and Miss America and Miss Universe and all those other contests with nauseating names. Instead of looking at a symptom of the problem, why not go to the cause?

It's very hard being a male chauvinist these days. We chauvinists (fictional ones especially) have been flogged so much that we feel great waves of guilt at the least provocation. Why can't a man be more like a woman, you ask? It seems that what some would call the "typical male attitude" involves regarding women as objects-meat, at the worst (or maybe the wurst?)-and preferring sex to understanding in relationships. There is, after all, something distinct about the mental makeup of the human male that is so deeply rooted that it cannot be erased by teaching or biological control. (In this sense, the "grass-roots level" end to sexism that Imprint's Carol Fletcher calls for is impossible.) But I also assert that this exploitative attitude is not exclusively a man's property, and nor (gasp!) are all men like this. Why do male strippers work, and why do gigolos exist? The whole militaristic, black-and-white stance of women's groups in this area needs some frank reappraisal in light of the appearance of the "enlightened chauvinist."

I would describe myself as an "enlightened chauvinist"; like characters such as Ulysses and Leopold Bloom, I am unshakeably male, but my world-view is that peaceful coexistence is possible between the sexes. For everything there is a place. The respect a man pays to a woman-anyone, really-reflects back on himself, but in a diffracted sense. (After all, where would we be without prisms, without colour?) Relations between the sexes are intrinsically dynamic and must continually change, but we all have to find a balance within this change. We cannot separate biological realities- physical attraction, lust, or other euphemisms-from the abstractions we carry with us in our heads. Rather than call for an end to sexism, how about an end to extremism?

Gëorg Mandrive

## A Geek's Eye View by Stewie Keen

Those exhilarating days of 1 A stand out so well in my mind. I remember, united with all my peers from both streams, how "See you in 4B!" was our rallying cry. It served as a reminder to ourselves to "be toughies" 'till graduation swept us up to the cold, harsh reality of life without D and D.

To all you frosh in doubt about your future or academic success, worry not! Uncle Stewie is here to help you. This column will show you the ropes, the tricks to surviving the academic jungle.

## First Days of Lectures

Holy cats! First day of lectures already? What to do? Where to go? I'm soooo confused! Do these thoughts and others race through your mind, too? Take heed; here are some hints on getting off to a good start for those first few exciting, suspenseful days of lectures:

Nutrition! To get a real jump on your peers, you must, must, must get a good breakfast. Fortunately, the $\mathrm{C}+\mathrm{D}$ stand is a good place to get the five important food groups:

1. Coffee; for that alertness to give you that "Hungry Wolf"
look (apologies to hard rockers, Duran Duran).
2. Donuts; (Sugar, chocolate, etc)
3. Dairy; Chocolate milk with nacho cheese chips.
4. Coca Cola; A balanced diet is essential. Do not ingest too much sugar without caffeine.
5. Greens; Greens are important in your diet. Buy the donuts with the green sprinkles.

OK, so, like, now you're in your lectures, eh? Don't be a hosehead! Grab a front seat. This is important to do so that the 'wimps' and 'keeners' don't beat you to it. Besides, there's more room at the front to operate your HP-1000. Now, what you probably hear, is that it isn't good to answer too many questions in class. I agree. It annoys your classmates. So what you can do, to prevent the 'brown-nosers' from raising their hands is to stop bathing. Yes, stop completely. When people smell you, they'll avoid breathing. And what makes you breathe a lot; talking, right? So the first thing you must...Hey, ouch! That hurts, guys...I'll scratch you, scratch you all! Lemme go!...C'mon guys, let me write some more...I'll buy you pizzas...
[keeners are necessary for everyone else to: A) understand what is going on, and B) hand in completed assignments.-ed.].
(Next issue: Exercising the mind, spirit and body (Crossword puzzles, $D+D$ and video games))

## GridWording It

Due to requests from the winter term, I have decided to explain how to do the Grid Words that I create for mathNEWS.

My Grid Words are cryptic, or British-style, crossword puzzles. They are composed of two parts: the grid and the clues. The clues must be solved to fill words into the blank squares in the grid just as in conventional crosswords. The differences are in the way the grid and the clues are set up.

One thing that you should notice about the grid is that it is symmetrical, ie. it looks the same upside down as it does right side up. Also, there are more blacked out squares on the grid than you may be used to. The result of this is that generally half or more of the letters in a word are not shared with another word. This forces you to solve every clue.

The clues themselves give two definitions for the word: a direct definition and a cryptic definition. This may make the clues sound easy (WOW, two clues for every word!) but the trick is separating the definitions within the clues. At the end of the clue, the length of the word(s) in the solution is given.

When you first read through the clues you may find that some of them are quite silly or nonsensical. They will make sense (hopefully) when you decipher them. The following is a list of types of clues including key words to look for and examples of each type. Note that a clue may be any one or more of these types:

1) Anagrams-one or more words in the clue are jumbled to give the solution. Key words-scrambled, mixed, to, so, around, about, sorted, scattered, confused, etc.
eg. 'A beat to slow down' $=$
ABATE jumbled from A BEAT
'He set the things here' $=$
THESE from HE SET
2) Construction- assemble the answer from parts of the clues.

Key words-lead, start, follow, after, before, on, etc.
eg. 'It's intended that I lead the insect' $=$
MEANT, ie. ME leads ANT
'He was the first to build a water barrier' =
ADAM. ie. built from A DAM
3) Misleading Clues- clues that seem to say one thing but are really indicating something else.
eg. 'The golfer's are starting to come in here' $=$ TENTH HOLE
'A sign of balance' = LIBRA
'You need pull to eat this' $=$
TAFFY
4) Double clues- two definitions are given for the word. eg. 'An article on French tea' $=$ THE which is an article and which also is the French word for 'tea'.
5) Alterations- split words up or switch words around. Key words-in, around, split, cut, about, turn, back, up, etc.
eg. 'Content and very quiet in the hay' $=$ HAPPY
ie. $\mathrm{PP}=$ pianissimo contained in HAY
'Exist ud to this age' = ERA; ie. ARE written up.
6) Dropping letters-drop a letter from a word Keywords- headless, tailless, etc.
eg. 'The head of the host was lost to the wealthy bird' $=$ OS-

## TRICH

## ie. HOST lost H added to RICH

7) Hidden- the answer is hidden in the letters of the clue.
eg. 'The band is tantalising from afar' = DISTANT; from banD IS TANTalising.
'The really rich give a word in music' = LYRIC; from realLY RICh.
8) Homonyms- the answer to one part of the clue sounds like the required answer. Key words-anything related to hearing or sound.
eg. 'I hear the crew will be mean' $=$ CRUEL which sounds like CREW'LL.
'It sounds like he showed the way to Plumbum' = LEAD.
9) Other instructions- look for other words that may indicate how to construct the solution.
eg. 'Every other olblong marsh' $=$ BOG which is every other letter of oBIOnG.

Even after reading these instructions, you may find that GridWords are quite discouraging. Reading the clues through for the first time may not produce any results. However, going back over them, looking for key words and fiddling things around in your head should allow you to get most answers. Remember, perserverance is the key to successful GridWording!

Frank Letniowski

## Platter Spatter

John Cougar Mellencamp - "Scarecrow"

I first heard of John "Cougar" Mellencamp through the commercial success (read A.M.) of his American Fool album. Sure, there were previous albums, but one is best to just read about them in Rock Encyclopedias, and not waste money on them. They'll tell you all about this Mid-Western "Rebel Without a Cause", and his desolate pictures of America.

American Fool was followed by Uh-Huh, a hastily made album comprised of old Rolling Stones cliches. It received mixed reviews, with most people deciding one way or the other whether its spontaneity and raw energy made up for its inferior lyrics and production. Personally, I find it is still one of my favourite albums.

What he gives us in Scarecrow is closer to his older albums. The lyrics and production are more refined, leaving us with a definite old John Cougar flavour. He's back to writing about "The Face of the Nation", "Justice and Independence ' 85 ", and stories of dying farms and old men's memories. For better or for worse, we are also blessed with a more professional production, resulting in a sound closer to west coast rather than mid west rock.

However, there are still highlights. The best songs on the album are the ones where, like Uh-Huh, he and his band are having a bit of fun. In particular, with "Small Town" he boasts proudly of his roots, while "Rumbleseat" is a tongue-incheek attempt to cheer himself up.

Overall, the album isn't bad. The music is good and the tunes are hummable. It has been said more than once before that his records make good background music. All we have to do is politely ignore the lyrics, and hope that he may lighten up a bit on future albums.

## Back to the GridComments

by Woody Tobias, Sr
Welcome to GridWord, the mathNEWS cryptic crossword. If you're new to GridWord solving, what you should do is solve this puzzle, then submit the completed GridWord along with your name to the BLACK BOX across from the 3rd floor lounges in MC. You have until midnight, 28 September 1985 to hand these in, so you need not rush too much. From all the correct and completed entries we receive, we will choose a winner, and that lucky winner will receive the secret mathNEWS prize. More details on that when our Grid winner is determined. In the meantime, happy Grid solving.

## Puff The Fractal Dragon

## by "Weird" Jim Jordankovič

## Refrain:

Puff the fractal dragon was written in C
And frolicked while processes switched in mainframe memory.
Puff the fractal dragon was written in C
And frolicked while processes switched in mainframe memory.
No plain fanfold paper could hold that fractal Puff-
He grew so fast no plotting pack could shrink him far enough.
Compiles and simulations grew so quickly tame
And swapped out all their data space when Puff pushed his stack frame.

## (Refrain)

Puff, he grew so quickly, while others moved like snails And mini-Puffs would perch themselves on his gigantic tail. All the student hackers loved that fractal Puff But DCS did not like Puff, and finally said "Enough!"

## (Refrain)

Puff used more resources than DCS could spare. The operator killed Puff's job-he didn't seem to care. A gloom fell on the hackers; it seemed to be the end, But Puff trapped the exception and grew from naught again!



Across

1. Carriers that predict heredity is in the beginning. (7)
2. How electricity goes around and around. (7)
3. The interpreter says the physician is back in the bucks. (7)
4. The boy has rubbed the lamp and laid it about. (7)
5. Beauty's companion was headless and from the Orient. (4)
6. The apothecary has many a carpet. (4)
7. A minor is around in the haze to help the melody. (9)
8. Perform else take the exit. (4)
9. More than fifty in the street got cut. (4)
10. The entire three hundred mixed by the richly strange. (9)
11. A notion that I started doing everything always. (4)
12. And so on, he began to draw. (4)
13. One who is industrially adept could get a star named strangely. (9)
14. The limbs will solidify back this way. (4)
15. Concealed death ordered by a thundering leader. (4)
16. The non-Jewish short fine man on the French island. (7)
17. There are purposes for living in portable dwellings. (7)
18. Intelligence to the real end. (7)
19. A virus can take any foreign country. (7)

## Down

1. A heavenly gift from the dog's den. (7)
2. These certain similar men have small cuts. (5)
3. The Marquis said it differently to the band. (4)
4. A master about water flow. (6)
5. Carbon on the fabric reveals coloured wax. (6)
6. Area people have to harvest. (4)
7. Below and against a raised Communist. (5)
8. The thing to sort this evening. (7)
9. That's a 'round about way of making harmful gestures. (7)
10. Of the hundred French who make the climb down. (7)
11. Part of a pound of uranium was put in one time. (5)
12. I hear a sick bird broke the law. (7)
13. At this place, state the innuendo. (7)
14. I count on finding the jade pendant. (6)
15. A speaking saw? (6)
16. Going to, in a way. (5)
17. He took a girl up to colour her hair. (5)
18. A foreigner lost a legal debt. (4)
19. Animals go up to a large body. (4)

Frank Letniowski

Klub Domino. My fave. Surreal cold-wave dervishes go twist/run/repulsion, white face and black shrounds share barren spaces with skanking flattop watusi, stiff-nosed nihilists, and of course the Rasta guy who's always there, the extremely ugly bouncer, and the "bear". Oh yeah, the music's good too. I began to stop going when I discovered Thursday nights at Nuts ' $n$ ' Bolts. The crowd is incredibly eclectic, and all confused. The DJs are in charge, and the tunes are amazing, if painfully loud.
"I cannot wait to get out of this city of phonies. They're just everywhere. Does anyone else besides me smell bananas?"

Yorkville. During the day, a cornucopia. Dozens of shoppes offering many lovely items which few can afford. Dewy-eyed nymphettes from Rosedale of the Tracey Thorn or Rebecca Rankin genre glide by in packs, tongues wagging frantically in mimic of their snobby mommies. By night the trendy set jams the cafés and the ginos ooze out of the neon woodwork and fill the night air with thin insipid cries. It always rains when $I$ go.

If you can avoid it, never take the night bus. It's entertaining, but pretty unsettling.

I love it when I see those two old guys walking their german shepherds (the hugest german shepherds I have ever seen); they don't know it, but they are very cool. So is the "greybeard loon" who lives in the bus-shelter near Queen and University. He has that warmth of expression which renders him harmless and likeable. He has all his wardrobe and possessions tied in bundles that he keeps with him, and is definitely a loner. He must be okay if they have let him live in that busshelter for so long.

People shift around. Lives change. The questions people ask me are the same but I can't answer as well as I once could. The house on Beverly Street has been sold; my dog is dead, and the others skitter off to Europe with frightening regularity. Some people's fortunes improve; others are destroyed by tragedy or their own lifestyles. As for me, the little grey house among the trees beckons, and I detach myself from the trapping of urban man, and go back to my snug hole in the ground, my books, my records; my own little corner of this island earth.
Masthead: Suprise Suprise it's 11:30 and Iam Preparingthis Mas thead. Like SHOCK WONDER LOOK of Amazement we have finished this issue Before $12: 00 \mathrm{PM}$. A First! : Credit for this totnally Awsume Acconplishment itres to the Follraing: Dnvid Leibrld, nunname it he eitherdid it or helped withit, Tom Irey; Layout supervision and tons of Stnff, (x2niac, Layou't, proof reading, Bear;, Cover and Layent, Nancy, Layout, Durren; Proofroading, Stewart; prorfreuling and Layoult, Searperzefreading and Layont, daniprorfiredding, keni, uro troading Layout, Cyri i, proo fread ing and Lover idea, Col leln(2li) prapfreadiong

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## MathSoc Design Contest

An opportunity to let loose your mathematical/creative fantasies!

## fIRST CLASS PRIZES! (Beer!)

Some talent, ingenuity, humour may be involved, but not necessary. Submit your entries separately by Friday 27 Sept. (4:30 pm) to MathSoc (MC 3038).
See rules \& details in mathNEWS or MathSoc. Contest is open to all fee-paying Math undergrads.

## Math T-Shirt, Ruler $\mathcal{B}^{\text {Button Design Contest }}$

## RULES

- T-shirt designs
- should be submitted on $81 / 2^{\prime \prime} \times 11^{\prime \prime}$ paper
- design should be in ink, colours allowed
- should include words: WATERLOO and MATH on the design
- may include: pink tie, mathematical miscellany, catch phrases, UNDERGRAD.
- need not include: 1985, class of..., program (CS, AM, ...), MathSoc or Mathematics Society references


## - Ruler designs

- should be submitted on lined paper in ink ( 1 colour), no more than 3 lines of text
- should include words: MathSoc, U of W, MC 3038, ext. 2324
- may also include: pink tie logo, catch phrases, mathematical miscellany
- Button designs
- should be designed for a $3 / 4$ " diameter (little!) buttons - anything math-related permitted


## - General Rules

- entries should be submitted separately in envelopes by Friday 27 Sept. (4:30 pm) to MathSoc (MC 3038)
- include your name, id \#, year and program (eg. 3B CS,
...) and phone number, and category (T-shirt, Button, Ruler) on the entry envelope
- contest is open to all fee-paying Math undergrads
- entries for each category (T-shirt, ruler, button) will be judged by MathSoc executives
- there may be more than one winner in a category
- winners will be announced in the Friday 4 October issue of mathNEWS with the winning T-shirt design on the cover

Frank Letniowski. Platter ipatter Bygrm. Ferkene Back to the Gridiomments by Wrady Tobins LridiWed by FrnukLetriowski tMathsochesign. Contest By Grace werethe a rticles in bmitted and theirnuthors. OH well Now it's $12: 1313$ and I am still doing this $M_{a s}$ thend. The sweet pleasures of Being tditon. Surry for nuy ar tides misispt? or anyene misesed + I tried tageteveryon. Cintinnodin P.2.

