math NEWS

Volume 36 Number 10

Friday November 30, 1984

mathSOC presents...

END OF TERM

Friday Nov. 30,

upstairs at the **KENT HOTEL**

Feds $2, others $3 *at the door*

Proceeds to the Red Cross for Ethiopia

Leaving So Soon??

For those of you who will venture out into the wild and crazy world beyond Waterloo, whether it be for a work term, or something else, you can still enjoy **mathNEWS**. Thanks to diligent people in the **mathNEWS** Subscription Department, you can have next term's issues of **mathNEWS** delivered to your work term address. Just come to mathSOC and leave your name, work term address, and a small fee of $3.50 (postage costs!). Then, watch in mid-January for your first copies of **math-NEWS** containing the adventures of taivey, Tom Watts, Scooter!, and who knows who else. Make sure that you are entertained and (to a certain extent) informed while you are far away on a work term. Subscribe to **mathNEWS** today!

mathSOC presents

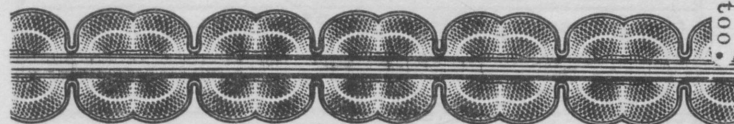## 1985 Road Trip to ... The Quebec Winter Carnival

Feb. 15-17, 1985

$110 with private bathroom
$100 with shared bathroom

This price includes the coach trip an' 2 nights accommodation in an Old Quebec required *today*.

Sign up in mathSOC any Mon.-Wed. or Friday between 12:30 & 1:30 or by contacting Chris Jones at 886-0619.

From the President

This term has been very frustrating. Believe it or not we have had five bookings at Fed Hall canned. Originally we were to co-sponsor the CFNY road show with Arts on October 28th or the 8th of November. Our Mega Wine and Cheese was supposed to go in Fed Hall on the 15th of this month. What a blowout the Grey Cup was—Mathsoc got blown out of Fed Hall almost as badly as the Tigercats were blown out of Edmonton. Last Friday we cancelled the major end of term event of the century, Breeding Ground and L'Etranger.

Is there life beyond Fed Hall? A moderate to large group of mathies will discover this when they attend the end of term function upstairs at the Kent Hotel. This evening, beginning at approximately 9:00pm, an intense party atmosphere will descend on what has been been described as "The Beat Escape", "The Wild Side", and my living room. Mathies will flood through the door, happily giving their surprisingly moderate $2 cover aware of the fact that all proceeds are going to the Red Cross for Famine Relief in Ethiopia. Once inside, they will sway to the beat of one of the better sound systems in the area, and clear their minds for the inevitable...exams.

On the topic of exams, our full time, part time secretary will be around until the 13th of December. Kim will be in mornings to dish out old exams, change, etc. most of the time. Because she is learning all about the wonderful world of Unix during exams the office will be closed during DCS course hours. A full schedule of hours will be posted on the office door during exams.

As you go off on your work term, think of what you want out of the Math Society for the summer. Approach Lida, Lisa, or Brian at Watpubs, and let them know what events you want, or better still, want to run. If you aren't going on a work term, look forward to the grand opening of Fed Hall in January. Three recording acts have been booked for the first week of classes, and you can be sure MathSoc will be running events to make up for those missed bookings this term.

In conclusion...

Ross Morrissey

LookAhead

A glance at upcoming events

Math Events
Nov. 30 End of Term Pub (upstairs at the Kent)
Cinema Gratis   *starts 9:30 pm. in the CC*
Dec 5 *A Christmas Story*
UW Arts Centre   *Call Humanities Theatre Box Office at 885 4280 for more info*
DCS Courses   *Free! One to three one-hour lectures; contact DCS to register.*
Dec 3,5,7   Introduction to UNIX   Dec 10,11,12   UNIX for Documentation
Watsfic
Nov 30   Games day. Starts at 2:30

An Appeal

Hello, I would like to talk about something that's becoming a serious problem. I'm not talking about herpes or anything like that. I'm talking the degrading exploitation of a minority. I'm talking about Equal Rights for Temporary Counting Variables.

I and others like me feel it is time to speak out against the injustices done to us. Heartless programmers work us to death in the FOR loops. We get locked up in arrays while other variables go on to live meaningful lives, representing the rich and powerful matrices, for example. Matrices of which we are kept on as mere pointers, I might add.

We seldom, if ever, are rewarded for the work we do. While other variables receive a handsome salary and an adequate description of the work they have achieved , we are ignored or occasionally tagged with the four words: "a temporary counting variable", as if we were an embarassment to the programmer.

Other variables become custodians of valuable data. We rarely look after anything other than the series of numbers, as if we couldn't be trusted with anything else.

Other variables get passed on to subroutines where they undergo expensive plastic surgery to improve their appearance. We are forced to work overtime in the same subroutines.

When there is a bug in the program, it is almost always the other variables that are examined first and receive immediate medical treatment. This snobbishness and lack of caring, infuriates us.

Hence, what I am saying is that we aren't going to take any more. We are rebelling. You can't count on us anymore.

Signed 'I'

Terminal Editorial

This, it seems, will be my last editorial of the term (do I hear applause?). To make up for the desolation that you must be feeling when you hear this, I have decided to write a special editorial.

I suppose that I ought to mention a few further apologies. It appears that the list that we published a few issues back suggested a racial imbalance in apathy. This was by no means intended, and ought not even to be inferred. Names do not always originate from the cultures you expect. It has been suggested that the list ought not to have been printed at all. I still believe that we were acting within the bounds of acceptability when we printed it. I apologise to anyone who might have been offended; we only wished to create a little more peer pressure, not to offend.

I would like to thank everybody who made math-NEWS possible this term. This includes all of the people who wrote articles, those who submitted drawings or photos, and those who told us what was going on around here. It also means everybody who helped with production nights — those who typed, edited, collected printouts, proofread, corrected, cut, did layout, taped things down, or even just showed up and talked, or ate pizza, or sat in the office and looked pretty. Thanks also to MathSoc for our funding and for providing us with events to publicise, summarise, and criticise.

Special Thanks to our advertisers this term. This long list includes **Imperiums to Order**, who switched to us when they found a certain other campus paper uncooperative.

(I hope all of the above remember who they are.)

I'd also like to thank all of our regulars: John Omielan, Rick Kuzell, Kevin Earley, Jane Roberts, and Barb Stankiewicz. Thanks to my assistant editors, dan schnabel and Tom Ivey, for truly prodigious work.

Thanks also to the semi-regulars: Paul Obeda, Camille Goudeseune (who does get bonus marks on his assignments), Sam, Barry, and everyone else that I'm forgetting.

Finally, thanks to the irregulars: everybody who's done anything related to **mathNEWS** this term who isn't mentioned above.

And of course, a special mention for our very own suspenseful Ehcnalb Stanwick, one of the few people (other than, maybe, Zeke) who is sufficiently socially inept to get stuck dancing and drinking with me (and I have photographic evidence!).

Oh! Before I forget, I ought to thank both Cary and Charles Timar, as well as the infamous Chuckles, for being me when I couldn't.

It has been a great term for **mathNEWS**. I hope we can maintain this level.

Alfred Ed. Cary Timar von Newman

Alfred Ed. Cary Timar von Newman

No pay raises.

No Christmas bonus.

No pension plan.

But we may have just the job for you. It's challenging. It will prove just how adaptable you are. And it will give you the chance to see another part of the world and experience another culture. CUSO, Canada's largest international development organization has a variety of Third World jobs available.

Do you have a degree in Computer Science and experience? Ghana is looking for a Computer Science Lecturer. Peru is seeking a Computer Programmer. Mozambique wants a Technical Advisor and a Computer Systems Administrator. For more details, contact the nearest CUSO office, or write to CUSO, TM-1 Program, 151 Slater Street, Ottawa K1P 5H5.

Further Fallacies

Here we go with the exciting conclusion of the expose of the fallacious (not *fellatious*, as that would not be Pure Math in the most upstanding and virtuous sense) proof found, among other respected places, in the Stat 231 notes. (J. G. Kalbfleisch, 1984)

As you no doubt recall, it was shown that P, the product of all primes $(p_1, p_2, \cdots, p_n)$ less than or equal to a given largest prime p. Then $P+1 \equiv 1 \, mod(p_1, p_2, \cdots, p_n)$. It was then stated that $P+1$ was therefore prime. This is not necessarily so.

Note that the product P is, for many cases, much larger than the original 'largest prime' p. It is possible (exercise: give an example) that $P > p^2$. When this is the case, it is possible that there is a prime p_c (for counter-example) that is larger than p^2, and is a factor of $P+1$. (Ex: if p is 19, $P+1$ is 9699691, which is divisible by 347 > 19)

So the proof as stated does not work. However the more alert of you will have noted that the counter-example also implies the existence of a prime larger than p. [Typist: since it is the last day of classes, you are running out of time to confound your stats 231 prof with this error.] So we could break the proof in two cases, both of which would work, and which would in combination disprove the existence of a largest prime. The proof is left as an exercise to the masochists who actually read their sadistics notes. [typist: or ask the prof.]

Dr. Oscar and Mr. Mike

Tuition Increases

In the October 31, 1984 issue of the Gazette Dr. Wright's text for a speech to the faculty and staff was reproduced. In this article he says "our budget crisis could more realistically be relieved by ... increased tuition. I see an increasing tide of opinion supporting these arguments."

Even though it may be an unpopular position, I support higher tuition fees. Dr. Wright talks about a 10% increase above the C.P.I. The following table was constructed assuming a C.P.I. of 6%.

Year	Tuition 6%	16%	Difference
84-85	578.50		
85-86	613.21	671.08	57.85
86-87	650.00	778.43	128.43
87-88	689.00	902.98	213.98
88-89	730.34	1047.45	317.11
89-90	774.16	1215.05	440.88

I must admit that right now $1484.81 ($1215.05 + 269.76 for co-op and incidentals) does appear to be quite a large amount to pay for one term. (Some of you will probably say that is an understatement). I don't support indefinite increases in tuition. In UW's brief to the Bovey Commission "at least a doubling" of tuition is advocated. I wouldn't go that far, but a 50% increase in tuition doesn't seem unreasonable. We really aren't paying that much for our education.

R.P.

Monkey Held For Ransom

mathNEWS exclusive

The ransom note:
re: the lost ad in **mathNEWS** 4 issues ago.
dan,
I've got your panda. If you want him back alive, meet me in a dark alley. Alone. Bring all your math notes with you. Don't try to find me. I'll contact you.

If you really want Monkey back, you can publish your response in that radical paper, **mathNEWS**.

the infamous bear-napper

p.s. Why is he so dirty? What have you been doing to him?

Dear Infamous:
Yes i really want Monkey back. I've been waiting alone (or almost alone (it's been cold some nights)) in dark alleys for two weeks with my STAT231 notes. I'm in favor of a settlement without involving the Panda Restoration authorities. Call me at 884-6918 and i'll follow your instructions.

dan

p.s. Once Monkey demonstrates why he is so dirty, you'll be paying me to take him back, so you'll want to act quickly.

Reasons for Not Liking Easy-to-Use Software

I. The Old was Good Enough

I learned it, why can't you?
What's complicated about it?
I had no problem learning.
All you have to do is just look in the manual.
That easy stuff is for kids.
This sort of thing is all right in its place,
— but not for computer professionals.

II. The Old was Better

It's discipline that's good for you.
It's really elegant/logical, if you just take the time to study it.
They've taken away the logical beauty and covered it with mud.
Computers were not meant to be used so fast.
Such things were not meant to be.
What's the matter with these people?
The next generation won't know what it means to type a command line.
If someone wants to sit here acting like a damn fool, that's all right,
But count me out.
I say it's stupid.
It's all sizzle. Where's the beef?
Six months from now it'll be some other fad.

III. The New is Bad

We're losing sight of basics.
This is just a symptom of what's wrong with the world today.
They keep wanting 'more features', never less.
Kids shouldn't see this stuff—they'll get a false sense
of reasonableness.
Where will it end?
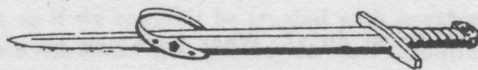
IV. What's to Not Like

I don't like the mice.
Look at all you have to go through to do a simple [...]
I want to be able to do it with one keystroke.
Yeah, this sort of thing is fine, but look who has to maintain it.
If people are too stupid to use computers *right*,
they don't deserve to.
I have better things to do than coddle morons.

V. To Hell in a Handbasket

Maybe some people just shouldn't use a computer.
Things shouldn't be made easy—it destroys character.
If it becomes this easy, use of computers
will pass out of the hands of those who really understand them.
It will cause unemployment.
It will cause widespread social disruption.
If you make things too easy, they'll be overused.
It will strain the people.
Everybody will want one.
Mice will give people misshapen arms.
Our fingers will atrophy from not using the keyboard.
They want to reduce people to a lump of jelly.
If God had intended computers to be used that way,
He would've given us light pens instead of fingers.
A man is a man and a computer is a computer,
and if we let them get this close together,
the next thing you know ...

Maasthead / Gossip Column   (dan schnabel)
    The last of this terms mathNEWS' is now complete. This has been the best of ten great production nights. Mega thanks to each and every one of you.
    Thanks to our plethora of contributors, without whom we would be nothing. Thanks specifically to Ross Morrissey and the rest of mathsoc. Of the rest i must initially thank I and R.P. Equal thanks to Doctors Oscar, Ernie and Twiddles. Thanks Mr. Mike, Daniel Wevrick, Chris Jones, Oblique Reference, Michelle Wahl, Slash Sinatra, Center of Gravity, Aristotle, Melvin Vockler and his little brother, the Cunning Linguist and the Two Dementoids. Thanks numerically to 84000007.
    While the President slept the term's largest production and consumption crew materialized. I can give neither order of appearance nor the extent of each individuals activities. Nevertheless, i extend thanks to Paul O., Camille and Barry for being around to to take orders; John O. and Kevin E. for not needing orders; and Rick and Cary for giving orders.
    Steve R made his presence known by being another juggler.
    Rob M. and Ken S. also came by. Rob proved to be very useful whereas Ken was more philosophical with lines like "I'd cut it off to realise myself." Thanks guys.
    Mathsoc was represented by Tim Hill (bearer of late news) and Caligari's somnambolist Ross M. Good to hear from you.
    An early arrival was Claire who had to be sent home because she was sick.
    Tom was his usual multipurpose self, at least until Barb arrived. Then Gary became his usual handy self. Tom became upset and condition one had been satisfied.
    Condition two, the final condition, was satisfied when Jane, our juggler and games co-ordinator, distracted Rick, a self declared layout editor, just enough to allow me to take over

BeedFack

Dear mathNEWS:

I have recently come to the somewhat controversial conclusion that the letter "X" should be abolished from the alphabet.

The swifter readers of this publication will no doubt be asking the obvious question—why? (No, the answer is not 42).

The reason is that the letter X is highly redundant. For example, we could write xylophone as "zylophone" an exercise as "eksercise". What have we lost? Nothing!

So what do you think? Do I deserve the Nobel Prize for Literature?

signed, **The Cunning Linguist 2B**

P.S. I also think abolishing X will cause a lot of mathematicians problems, and I like being a trouble maker!

[Ed: Last I remember, π wasn't in the alphabet either.]

To the Editor:

This is in response to the letter from Gord Erikson and his question, "Why bother with CS".

His first response about taking Calculus and Algebra courses does not seem logical. Every first year Math student at Waterloo must take a course each term in Calculus and in Algebra. In the upper years, the maximum CS load is 3 courses and thus the CS major will still be stuck taking at least 2 real math courses during each upper year term. If Mr. Erikson had not wanted to take Calculus and Algebra then he should never have accepted the offer from the university to study towards a **BMath** degree at Waterloo. Many other universities offer BSc programs in computer science with little emphasis on Math. It is a fact that if you are good at mathematics in general then you can easily become good at computer science but the reverse is not true.

Concerning not getting into CS, it is not the powers that be that decided your fate but it is yourself. I would like to point out that even if you did take a course that disagreed with you, and it was not a CS, Calculus or Algebra course, then your good (?) marks in CS, Calculus and Algebra should have got you into CS. If you did have trouble in first year CS, Calculus or Algebra then I don't know why the heck you are doing studying math at Waterloo. I also took courses that disagreed with me but due to good math marks in the required courses I got in with no trouble. I consider myself a mathematician first and foremost and a computer scientist second.

It is about time that some students woke up and smelled the air and realized that they are studying a **Bmath** degree and not a BSc in computer science.

Daniel Wevrick 2A
AM&CS

Dear Editor:

Conjecture: The greatest velocity obtainable by the unaided human body occurs at the end of a Math 130A lecture (with prof Higgs.)
Proof: This is a law of nature and therefore is a given and therefore no proof is needed.

B. Ored 840000007

Dear Mr. Ored:
By the time you learn what an axiom is you will realize that this is not one. In upper year courses you will realize that your conjecture is false. The greatest velocity is obtained at the end of STAT 231 lectures.

Dear Editor:

As a **mathNEWS** reader, I have been amused to follow the ongoing debate in the pages of this august journal (chuckles, Chuckles) over the problem of whether or not real numbers eat quiche. Observation of several math courses has led me to construct the following proof, which should satisfy anyone previously exposed to any UW math course:

Theorem: Real Numbers Eat Quiche.

Proof: It is beyond the scope of this letter to prove this result; however, it can be seen to follow immediately from the application of the Poincarré-Lipschitz Hyperobscurity Principle, with

$$\left(\frac{\sigma\pi}{e^7}\right)^{\gamma\rho-1}$$

substituted for the arbitrary scoping variant constant, to Theorem 2.7.9(b) (**mathNEWS**, Feb. 29, 1962), and the multiplication of the result by

$$\sqrt{\gamma\rho\phi^2 - \sigma\pi^4} - \phi\upsilon\kappa + 5$$

Hence, real numbers eat quiche.

QED

Respectfully, Oblique Reference

Chris Jones' Notes

1) To the big guy in the smoking lounge who I accused of ripping down posters, I'm very sorry, it was just one of those days.
2) To the scum-of-the-Earth who stole our entire football display from the third floor cabinet (including the glass): FROAD!!

Chris Jones

Is quiche really a form of pi? How does this affect real numbers?

Dr. Ernie's Last Column

Quick! How many *Happenings* does it take to define a *Self*? How can I prove to you that I exist? After all I am just another *Happening* to you. And since you all perceive me differently, who of you has the correct perception? And besides, by definition, a *Self* cannot be a *Happening*. This means that I exist but you are merely *Happenings*. But I totally reject the Solipsist view point.

Let us think about this in a logical manner. First we say that there is more than one *Self* in existence. Secondly we say that each *Self* is defined by a series of *Happenings* [typist: Haapanens? [Ed: Watts a Haaapaaanen?]] that may or may not be perceived by a subset of the *Selfs*. Now let us suppose [spoze] that a *Self* wanders into the field of *Happenings* defining another *Self*. This very act changes each of the *Selfs* involved (Heisenberg Uncertainty Principle). Now we ask the question: how do the two *Selfs* perceive each other? I, as one *Self*, observe the other; what do I see?

Since I am changed by the arrival of the *Self* we have to assume that the *Self* is a *Happening*. Unfortunately, this blows the theory away and we all dissolve in a puff of logic. [Typist: Puff the Magic Dragon lived by the sea...]

There is a better (for the theory) way of looking at it. Any action that a *Self* does is a *Happening*; and this *Happening* helps to define the *Self* which created the *Happening*. It is true, therefore, to say that the existence of *Self* is recursive. It is important to remember that *Happening* must come before *Self*; without *Happening*, there can be no *Self*.

So, one *Self* can never fully perceive another. I do not see you, I only see the *Happenings* that you are creating. You do not see me either, You only see the *Happenings* that I am creating.

However, I do perceive some of the *Happenings* that define you. In this way, I can make an attempt to know and understand you. But that is another story.

<div align="right">

Thank you, and goodbye
Dr. Ernie

</div>

and hence justify my gossip column.

Don't get me wrong though. These are great people and i'd be disappointed by any other staff. Even dan is alright, although He would look better if he tried blue.

Again, in spite of anything i've said, thanks lots people, hope to see you all again in the summer (except Jane who i have other hopes for). You've all made being a pseudoeditor of mathNEWS an interesting, educational and fun experience.

In conclusion, i wish luck to everybody, and i mean everybody on their final exams. Merry Christmas and may you all find peace and harmony in all your future lives.

GAUSS LIVES

Do You Realise People are Starving?

My mother used to encourage me to eat by making reference to "starving children in Africa"; yet I never really recognised the severity of the situation. I never understood that individuals were dying one by one because they went hungry day after day.

It is so overwhelming to hear of over three million people in Ethiopia alone who are suffering from famine, that I begin to let the statistics scare me and say, "There's nothing I myself can do about such a large-scale problem." Meanwhile thousands of people are so hungry that they are dying. The pain must be incredible! But still I do nothing. What *can* I do? The numbers are beyond comprehension.

There IS something we all can do. W.C.F. (Waterloo Christian Fellowship) and the FEDS are asking Waterloo's clubs and societies to hold fund-raising events to contribute to Ethiopian relief. The money gathered will be given through the Red Cross. This organization will guarantee us that 100% of the funds given will reach Ethiopia. Hopefully, our own mathSOC will get their act together and help in the tremendous need. [Note: see the ad for **mathSOC**'s End of Term Pub.] [*Ed: MathSoc has already donated the entire C&D proceeds from hot drinks (last Wed.) to this fund.*]

Please watch for and support these events. Your individual contribution will make a difference. "Discussing the situation" and "making yourself aware" won't feed any hungry mouths. **Do something about it!!**

<div align="right">

Michelle Wahl

</div>

Watsfic

Office: MC 3036

Today and tomorrow, November 30 and December 1 is "GAMES DAY." Watsfic ends the term with a day(s) of PURE FUN. Drop by to play a wide assortment of games. Watsfic has over 40 different games available, and people are urged to bring in any other games that they are interested in (no fantasy or fiction role playing games please).

Games Day starts at 3:30 Today and lasts as long as the people do. Headquarters is The Math and Computer Building (MC 3036). See the blackboard for details, drop by any time. It's FREE.

P.S. If you missed this term's Tourney and will be off-campus next term then leave a self addressed envelope at WATSFIC and we will send the appropriate information about next terms Tourney as it becomes available.

Proof of The Week

In reference to M.R. Daigle's question:
'If a chicken and a half can lay an egg and a half in a day and a half, how long will it take a grasshopper with a wooden leg to kick the seeds out of a pickle?'

Fortunately, this problem has already been solved by the great physicist-mathematician Werner Heisenberg in 1931 (which incidentally, led to his Nobel Prize-winning contributions)

His argument runs as follows:

Consider an ellipsoid pickle of shape
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$
(a, b, c not equal)
Assume n seeds of shape
$$x^2 + y^2 + z^2 = r^2, \quad n = 1, 2, 3, \ldots$$

Case 1: $r > max(a, b, c)$, $n = 1$
☞ Sorry Yuri! The seed is bigger than the pickle!

Case 2: $r < max(a, b, c)$, $n = 1$
Using DeBroglie's wave hypothesis it can be shown that the seed will pass straight though the pickle as long as the velocity, v, approaches the speed of light, c. At these velocities the wavelength of the seed is $\lambda > max(a, b, c)$ and no material with the pickle occurs, independent of seed position within the pickle. Thus the seed is 'beamed' out of the pickle.

This argument hinges on the fact that a grasshopper with a wooden leg can kick at speeds approching c, as we all know is true. (Have *you* ever *seen* a grasshopper's leg move when it kicks??)

In this case,
$$t = \frac{t_0}{\left\{1 - \frac{v^2}{c^2}\right\}^{\frac{1}{2}}} \text{ is the required time.}$$

Case 3: $n > 1$, $r < max(a, b, c)$
Using induction, one can extend the previous argument to the nth case.

☞ $t_n = \dfrac{n t_0}{\left\{1 - \frac{v^2}{c^2}\right\}^{\frac{1}{2}}}$, thus giving the required time and

hopefully satisfying MR Daigle. (But not in the way she *wants*.)

Three interesting quarks arise from the previous argument.
1. No marks are left on the pickle. The seed and grasshopper's leg pass straight through, due to their DeBroglie wavelengths.
2. Weird things happen to the time-space continuum at speeds *very* close to c. AS such we do not advise you to attempt this experiment in your own home.
3. Using a simple corollary one can easily find the solutions to the age-old problems: 'If Peter Piper picks a peck of pickled-peppers, how many pickled peppers did Peter Piper pick?' and 'How much wood could a woodchuck chuck if a woodchuck could chuck wood?'

Sincerely, Two Dementoids

Platter Spatter

1984: A year of ups and downs — musically, personally, and on a global scale, but the terrors of Orwell's vision are still to be. Shine on ...

Slash's Picks

The Year's Best Albums

1. The Lotus Eaters *No Sense of Sin*
2. David Sylvian *Billiant Trees*
3. Aztec Camera *Knife*
4. Depeche Mode *Some Great Reward*
5. The Psychedelic Furs *Mirror Moves*
6. The The *Soul Mining*
7. Ultravox *Lament*
8. Echo And The Bunnymen *Ocean Rain*
9. Savage Progress *Celebration*
10. Alphaville *Forever Young*
11. Talk Talk *It's My Life*
12. The Style Council *My Ever-Changing Moods*
13. R.E.M. *Reckoning*
14. The Smiths
15. (Who's Afraid of) The Art Of Noise

Songs Of The Year (tie)

"Smalltown Boy" (Bronski Beat)
"How Soon Is Now" (Smiths)

Video Of The Year

"Dancing With Tears In My Eyes" (Ultravox)

Concert Of The Year

The Psychedelic Furs

Non-Events Of The Year

Michael Jackson (as usual)
Bruce Springsteen (as usual)
The opening of Fed Hall
Tom Allison's re-election
Ronald Reagan's re-election
John Turner
The loss of the Kent and the Red Baron to AM Radio and leather
The commercialization of Queen Street West
Frankie Goes to Hollywood
Happy Christmas and all the best for 1985.

Slash Sinatra

The Nine Hells of Waterloo

For all people there is a heaven and a hell. Those who succeed will go to heaven. Those who fail at Waterloo will go to one of the nine hells of Waterloo. These Hells are as follows:

B.C. Matthews Hell — Where Kin and Rec students are forced to jog in circles forever.

Hagey Hell — Where artsies wander the corridors forever.

Arts Lecture Hell — Where engineers assemble and disassemble yellow Volkswagens forever.

Carl Pollock Hell — Where Artsies sit in the poets pub and write for enginews forever.

South Campus Hell — Where nutritionists and dieticians are sent.

Engineering Lecture Hell — Where architects go to sit and look at it.

Needless Hell — So you want a job, eh? Where bureaucrats sit and shuffle paper, wrap it in red tape and file it away.

Fed Hell — Where politicians are sent or people who like to wait in line go.

VD Hell (Village Dining) — So you like to eat, eh? Well, guess what.

Science students must spend eternity wandering from hell to hell. And: last but not least, being a Mathie is punishment enough.

The Battle Hymn of the Tutors

(sung to the tune of: 'When You Eat Your Smarties')

When you fail your students
   do you fail the mathies last?
Do you give the artsies essays,
   or do you give them math?
Give those engineers some theory
   but tell me when I ask!
When you fail your students
   Do you fail the mathies last?

(With apologies to absolutely no one.)

Not all Trojans are Horses. And not all elephants are as unaware of the importance of differential calculus as they may appear.

So, if all men are elephants and Socrates is a man, then is Socrates an elephant? Or is he just unaware of the importance of differential calculus? [Typist: but differential calculus has absolutely no importance what so ever, just ask a mathie.]

        Yours truly,
        Aristotle   (not an elephant)

"DEATH OF A CALCULATOR"

Reader's Digest

Condensed Programs

Asteroids

In keeping with tradition here at mathNEWS, here is another piece reprinted without permission from some unidentified issue of Creative Computing...

```
10 REM ASTEROIDS
20 PRINT "YOU LOSE"
30 END
```

Center of Gravity
(more appropriately Center of Levity today???)

Snoring

Are you tired in class? Do you find yourself falling asleep. Does the professor seem to drag on and on? Does he close the doors to the classroom before the lectures begin? If the answers to these questions are yes, then you may be suffering from *high pressure*. Yes, it's *high pressure*; the disease that gets young and old alike. If you seem to be suffering from this disease then try keeping the door for your lectures slightly open. You may find yourself able to stay awake longer.