

math NEWS

It's ...

The MathSoc Corner

The Infamous Whine and Squeeze

By all accounts the MathSoc Notorious Wine & Cheese was a societal success (I wasn't there myself but I haff mein sources (actually not everyone thought so—see elsewhere in this issue)). Lisa Seabrooke says "Thanks Tony, Jody, Colleen, Blake, Cheese Cutters and all other volunteers for your stupendous job at the W&C."

Grey Cup Party

MathSoc is having a Grey Cup Party in the new Federation Hall the weekend of the big Gala Opening. On Sunday November 18th (this Sunday) the doors will open at 1:00 pm for pre-game viewing. Fed Hall comes equipped with a 9' by 12' screen — that's probably bigger than your bedroom wall (but probably *not* bigger than your ceiling (then again, I haven't measured my ceiling lately (maybe it has grown (of course, you can't tell because of the kites ...)) (Hey—get back to the Grey Cup Party!!!!)))

Free Munchies (chips, pretzels, corn chips, peanuts, small chairs, etc.) will be available a day. Come out and watch the Tigercats (such ugly shirts!) vainly attempt to defeat the Bluebombers (with so-so shirts). Tickets are available at mathSOC, the Fed Office, and at the door. Price: \$2 Feds, \$3 non-Feds.

Game time is 3:30 pm—see you there!

Vanier Cup Road Trip

There are some things that have to be experienced while at university. One definite must for anyone even mildly interested in football and having a great time is the Vanier Cup, the Canadian university football final, played annually at Varsity Stadium in Toronto. Try to imagine thousands of university students in one place, all of them there for the same reason: to celebrate the fact that it's Saturday. For entertainment there are lots of wineskins, flying toilet rolls, and the occasional young lady being passed back in the stands and (oh yeah) there is a football game too!

You too can celebrate the fact that it is Saturday by going on the mathSOC roadtrip to the Vanier Cup at Varsity Stadium in Toronto, Saturday November 24. Tickets

Volume 36 Number 8

Friday, November 16, 1984

Othello Tourney Results

The First Annual CSC (ie. Computer Science Club) Open Othello Tournament took place on Saturday Nov. 10th (ahh.. an excellent day, I must say!). Programs (and programmers) from all around flocked by the score to UW to match wits against each other. There were ten entries, most from around here, but also including an entry each from the University of Maine and the University of Amsterdam (these were played by Proxy, so he won ...). Three of the entries ran on VAX Unix, three ran on IBM 4341 CMS, and one each on Macintosh, IBM PC, Hyperion (!), and a single-board 68000 system with a Telidon terminal (neat!).

First place went to Dave Rowley's *Cleopatra* on CMS, second to *Bianca* on the Macintosh, by the same programmer. WATCOM's program *Cassio* on CMS took third place, followed reluctantly by Jan Gray's *The Gray Blitz* on Unix, of course. Tom Keith's *Desdemona* slinked into fifth place on an IBM PC, followed closely by Theo Van Der Storm's program *FlipFlop* on Unix.

The contest was sponsored (ie. prizes/refreshments furnished by) Computerland of Waterloo, Abacus Computer, and Domino's Pizza. (By the way, so much pizza was ordered that people had to be conscripted from the 'Bun room to finish it!)

Tom Ivey

are \$9 for Mathies and \$10 for non-Mathies; this includes a return bus trip and game ticket. The bus will leave at 11:00 am and return by no later than 7:00 pm. Tickets are on sale in mathSOC.

End-Of-Term Pub

Friday, November 30 is the **last** day of classes. So what are you going to do to celebrate? (Study for exams maybe? Nahhh...) How about an incredible pub in Fed Hall, featuring **Talking Heads**? That would be incredible and impossible. So instead we are offering a pub in Fed Hall featuring *two* bands — Breeding Ground and Le Tranger. The incredible part is the price — only \$4 for Feds and \$5 for non-Feds. Tickets are available in mathSOC and the Fed Office.

LookAhead

Math Events
Nov. 18 Grey Cup Party (Fed Hall!)
Nov. 24 Vanier Cup Trip
Fed Flicks
8 pm. in AL116 Cost: \$1 feds, \$2 others
Nov. 16-18 <i>Star Trek III</i>
Nov. 23-25 <i>Never Cry Wolf</i>
Cinema Gratis
starts 9:30 pm. in the CC
Nov. 21 <i>Who'll Stop The Rain</i>
Nov. 28 <i>Jesus Christ Superstar</i>
Computers in Education
Brown-Bag Seminars
All lectures at 12:30 - 1:30 in CPH 3385
Nov. 19 Modelling Languages For Control Systems
mathNEWS dates
Nov. 18 mathNEWS articles deadline
Nov. 19 mathNEWS production night, MC9088.
Nov. 23 Next mathNEWS available
UW Arts Centre
Call Humanities Theatre Box Office at 885.4280 for more info
Nov. 21 <i>Solid Gold Bach</i>
Nov. 26 <i>Primadonna</i>
Nov. 28 <i>Tafelmusik</i>
DCS Courses
Free! One to three one-hour lectures; contact DCS to register.
Nov. 19,21,22 CMS Part II
Nov. 27,29 Introductory SAS
Dec. 3,5,7 Introduction to UNIX
For Co-ops Only
Nov. 20 Placement Results posted
Miscellaneous
Nov. 30 Live Theatresports on Roger's Cable Channel 4 at 10:10

Editorial Apology

As many of our readers seem to have observed, the overall quality of the last two issues of **mathNEWS** was not up to par. Due to midterms and assignments, this will be the third consecutive week when only one or two members of our editorial staff have been able to preside over a production night. We would like to believe that the extra workload falling upon the editorial staff who are present does not inevitably lead to a decrease in the quality of the issue, but the evidence seems to be against us.

In our issue of two weeks ago, we had few problems with the content, and several people actually commented that it was good (as you probably know, most people find it easier to criticise than to compliment, so this is somewhat of an achievement); however, the issue contained one article which was pasted down with paragraphs out of order (and we thought only imPRint did that), several which were pasted down at odd angles (you might not have noticed), and all sorts of strangely placed squiggly lines. This combined to give the issue a sort of unpleasing appearance.

The Importance of Being A Mathie

How often have you walked through the aisles of the fourth floor library and heard the plaintive cry, "What am I studying this for?" This is a question that the average mathie spends many a sleepless night over. From our point of view, MATH 230b is one of the most useless courses in all of creation. The question is: which demented gnome stayed up late at nights turning MATH 230b into a core course? How many non-frosh are there who still believe that somewhere over the rainbow lies an employer who is interested in linear algebra? [Ed: A note here - I observed four algebra, calculus, and graph theory jobs this term. All four have since been cancelled.]

And so the long months of second year crawl past. And we suffer through endless afternoon lectures on obscure problems consisting of entire Greek alphabets taught in untranslatable dialects by distant professors. And all we can do is struggle on, trying to master the intricacies of a concept we barely comprehend. Asking questions of our neighbours only to discover that they think this a fourth year chemistry seminar on the reduction of amino acids in an aquatic polymer solution.

And then comes the third year and for those who make it we can stop, reflect and laugh our fool heads off.

May all your functions be
integrable:
Captain Cockroach

We would like to apologise for this, and will endeavour to not repeat these mistakes.

Following this came an issue where I was the only editor present. I did pay particular attention to the quality of the layout, but in doing so seem to have neglected the content. A number of articles were printed after (and sometimes before) only a cursory inspection. The result of this was that a some of these articles appeared with spelling, grammar, and typographical errors. Worse still, I let through without editing, certain articles which ought to have been edited. (I would like to say in my behalf that I did censor some articles. I did not indiscriminately accept everything that was submitted. There was one article, for instance, which might not have looked out of place in *Enginews*.)

The most noticeable instance of this is, unfortunately, the article appearing on our front page last issue. In this article, I left in a reference to MathSoc, which suggested that that society was in some way responsible for the article. This is not the case. The article was thought of and written entirely by **mathNEWS** staffers, with no input from MathSoc. I also feel, as do some others, that the wording in that article was excessively strong. Finally, it has been observed that the names which we listed were the names of people who have had their MathSoc fees refunded, but not necessarily the names of those who have not paid their MathSoc fees this term. Apparently, at least one of the people listed had been overcharged for MathSoc fees by the University, and was only having the excess refunded. We apologise to any students in our list who have paid their MathSoc fees for this term.

Cary Timar
Editor

A Menu of Clubs and Associations on Campus

This is just a sample of the small and unpublicised clubs around campus. These clubs generally don't have the same size of membership and funding as do the larger and better known ones.

1. The Society for the Preservation of the Democratic Rights of Chalkboard Erasers

This club is engaged mainly in an effort to increase the frequency of cleaning of chalkboard erasers in the Engineering and Arts buildings. They are also closely affiliated with the Blackboards of Waterloo and the Society of CaCO_3 . Plans for a merger of these 3 into the Amalgamated Association of Classroom Writing Implements have been greatly accelerated in recent years by the increased power of the Federation of Overhead Projectors.

2. The Association of Prime Numbers Divisible by 42

This is the least known and smallest of these clubs, the main reason for this being that there are no members.

3. The Society of Math Students Who Would Rather Be Off Feeding Pizza Boxes To Texas Beef Cattle On A Hot August Afternoon

This club consists mostly of burned-out Mathies who have spent too much time in the sun. It is hardly worth mentioning except for the fact that they only use the pizza boxes and give away the pizza that is contained therein to anyone who can find their office.

4. The Floccipaucinihilipilificationists Club

This club consists of the group of people whose sole purpose is to sit around and talk about nothing. It should be added that this club is not to be confused with the Society of Vacuum Worshippers (a quasi-scientific group who search for a method of producing a perfect vacuum (not the Electrolux type) and generally talk about nothing, but in a different way). (Bilingual typist's note: My co-op job last term was a Hauptisenbahnenknotenpunktenhinundherschieber.)

5. The Federation of Discarded Beer Caps (Waterloo Chapter)

This society has the largest total membership of all clubs on campus (close to 7500 times the on-campus student population). Most members, however, are too lazy to move from their position in a corner or under a desk to attend the club meetings. This is due to a general feeling among beer caps that their only meaning in life is to get off (the bottle, that is).

6. The Society Of Sane Math Students.

The founder of this club remained the only member for two terms, despite numerous applications which were all rejected for various reasons. Midway through his third term, however, he discovered that he actually enjoyed pure math, and therefore was forced to resign.

Chef Al

Comment: Wine & Cheese

Wasn't that a party?! The people, the dancing, the mingling, the frolicking – what it all adds up to is that our stream really does know how to have a good time. It is, however, a shame that we couldn't have opened the Fed Hall with such a party!

I would like to say "Way to go" to the organisers of the Wine & Cheese as they did maintain all the usual traditions. These traditions, however, typically include cheap wine, not enough wine, and a particularly narrow field of dance music.

Now understandably the volume of wine is difficult to judge, and perhaps for some, so is the quality; but shouldn't this last job be left to those of both developed tastes and adequate observational abilities to pick out the popular vintages? There was indeed more than just a handful of people complaining about the wine quality (or general lack thereof).

As for the music, everyone is entitled to their own opinions – so here's mine: the stuff we were expected to dance to was, for most of the evening, just garbage! It is just going too far when every mathSOC social event is dominated by one taste in music – satisfying one segment of the population very well, but leaving the rest of us saying "Well, that was another typical mathSOC event with lousy music!"

The question may be raised as to why people go to an event if they know they won't like the music. Well, I believe the answer is that they wish to take part in *the* social event of the term, *the* party that everyone who's anyone is bound to go to!

The question may be raised as to why the dance floor had a good percentage of people dancing. The answer to that, I believe, is that people *want* to dance, as this indeed goes along with having a good time. People are safe in the knowledge that the music isn't going to get any better, so why sit out this lousy song to wait for the next?

Now this is all pretty harsh stuff, and I'm sure there will be a fair number of people (those who did enjoy the synth-wave music of Saturday) cursing at me by now. Well the point is merely being raised: is it better to please some of the people all the time, or all the people some of the time? Perhaps a DJ who is willing to stray from his own personal tastes in an attempt to satisfy most musical appetites moderately might be the answer – Saturday night's DJ certainly wasn't (I tried – even offered music!). Perhaps a government task force should be set up to determine what math students like to dance to at parties. Or perhaps people like me, who can't stand *The The*, *Nina Hagen*, and *Joy Division*, should simply be lined up and executed.

Well perhaps I'm just full of hot air because no decent, reasonable rock party tunes were given any play time during the evening. Yes, that could be just it. As far as I'm concerned, though, it's a shame a possibly great party was only a good party due to administrative problems. To the organisers, I hope you, the "some", were pleased all of the time, because most of the time I wasn't. All I can say is that it's a darn good thing we're all so determined to beat the odds and have a good time because Saturday night could have quite easily gone flop if we weren't!

Adam Hergert, 2B

FeedBack

To the Person who knows so much about Quiche & Real Numbers, here is a problem which has been plaguing me for years ...

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 dill pickle?

Any enlightenment on this problem would be greatly appreciated.

"Sincerely"
M.R. Daigle

Dear Mary Kelly and "Branes"

I have been appalled to read about the supposed plight of coat hangers. I would just like to say that your attitudes are pathetic and narrow-minded. Obviously, being a coat hanger, you are blind to the true injustices in this world. You see, I am a paper clip, and lying on the desk in mathSOC I see enough suffering of my brothers to fill this entire paper.

First, the coat hangers claim brutality. This, at least, was shown in the second letter to be, for the most part, false. Then, however, they have the audacity to claim that their problems arise from the fact that they have Capitalist, Imperialist owners. A paper clip should be so lucky! Most of us get shuffled around from person to person, with nobody really caring for us. It is this apathetic attitude toward us which causes our true suffering.

Most paper clips start life stuffed into a small box in a dark desk with hundreds of others. Then, one day we are unceremoniously removed and forced around a sheet of paper. Then we may lie around for weeks with nothing more intelligent to talk to than a piece of paper (the occasional staple may provide stimulating conversation, but these meetings are rare). This, however, is the lot of a clip, and we accept this fate stoically, not by whining and talking of overthrowing the government as coat hangers do.

After we have been used and left lying on a desk, only then does the nightmare really begin. The first bored person to walk by is our nemesis. We are twisted, bent and linked into chains, usually culminating with death as we are wrenched into small pieces. This, unlike with the coat hanger, is an everyday occurrence, and one which most clips must face.

I also do not ask for money for donations, (although these are acceptable - send c/o mathNEWS), but only for a little compassion and respect. My time here is limited; there have been more people frustrated with midterm results than ever before and I fear I will be the victim next. I am ...

A paper clip and proud.

Have you ever noticed that around here they tell you about the weather in the Caribbean, but they aren't told our weather?

In the past few issues of mathNEWS, I have seen several different ways to prove that real numbers do or do not eat quiche. Although these proofs often used new and interesting ideas about real numbers and their eating habits, none of them made use of the properties of quiche. What follows is my own empirically derived proof that all real numbers eat quiche.

First, obtain a good cookbook and open it to a recipe for quiche. Now observe that there is a line at the bottom of this recipe which reads "Serves 4 - 6" or something to that effect. This obviously means that the real numbers between 4 and 6 eat quiche. By multiplying the quantities of the ingredients in this recipe by a common factor, it can then be made to serve any, and all, real numbers greater than or equal to zero. Since all positive real numbers eat quiche, and all negative numbers are simply -1 times a positive number, therefore all real numbers eat quiche, because -1 cannot stop the positive real number from eating quiche.

Therefore, all real numbers eat quiche.

Chef Al

To the Editor:

Befuddled by the ambidexterity of the applied problem, he began to write quickly. The period merely held back the forceful flow of words for a slight instant, before the ink rolled freely once more. But seriously, have you ever really considered the meaning of life? I don't want to get overly philosophical about things, but such a question, and others like it, do bother me. What really is the meaning of life? I don't want to know about existence of the self and perceptions of reality, nor do I want the over-used response of '42'. What I really, honestly, and without a doubt quite hesitantly do wish to know, is the meaning of life. (Actually, I don't. That was all just a phony lead-in to the real reason for this paragraph). The real reason for this paragraph is to start the second paragraph.

This is the second paragraph because it is indented. The real reason I am writing this is because I am not an excellent writer of non-fiction drama ... wait, no ... I am writing this because I observed something rather strange in the hallway the other day. But since I respect most profs, I really didn't write that. The *real* reason for this paragraph is to ask the readership some very pertinent questions pertaining to nothing much:

- 1) Why is absurdity criticised?
- 2) What ever happened to UFOs?
- 3) Is there life after death?
- 4) Is there death after life?
- 5) Why do people call Monty Python 'he'?
- 6) Three-toed sloths.
- 7) Why am I doing this?

Maharishi Yogi

P.S. 8) Wombats?

P.P.S. This is ridiculous.

Monkey, where are you?

Math Subjects

Most math subjects have names that don't give any idea about the course. Thus, I propose that some of these subjects be renamed to give entering students a better idea of what they getting themselves into. Here are my proposed new course names:

Calculost

This name is short for "lost without a calculator". However, they often don't allow calculators in midterms and the final exam. This could explain why so many students seem to be lost in this course.

Algerbore

This course is ideal for those who enjoy having pain inflicted upon them by sadistic professors.

Sadistics

The patented method utilized in this course is guaranteed to put even hard-core insomniacs to sleep before the end of the class due to the utter boredom.

Poor Math

The math done in this course is poor (i.e. devoid) of real math. It is recommended for those people who are not yet totally confused by math but would like to be.

Applied Magic

This course studies how to apply various magical techniques to solving differential equations, but still end up with the wrong answer due to making some inappropriate assumption.

Graf Theory

This course covers lesser German nobility and some of their cheaper musicians and/or serving wenches.

Mortuarial Science

Learn everything there is to know about people "kicking the bucket" — when, where, why, and how often.

Comb In A Torn Eel Enumeration

Learn to count up to 7 in $\binom{69}{40}$ ways.

Computer Sorcery

Learn what spells, incantations and prayers are needed to get a program to work. Advanced subjects include evoking compiler-compilers, summoning Daemons, and restoring virility to Unix.

In Ear Programming

Let your profs program you by ear to execute 11 incomprehensible algorithms involving matrix manipulation which could be much more quickly run on a computer. Cross-listed with FINE 454: *Zen And The Art of Cochlea Maintenance*.

Igor (with additions by Alfred and Georg)

Record Review

There are actually people who listen to music for rubber band and flute. Well, I say this, but I have no proof, except for this record. **Rubber Pandemonium** by **The Elastic Flute** available on **Complex Records #10002**. This is my only piece of evidence that people actually listen to music written for rubber band and flute. And I mean *one* rubber band and *one* flute, although there is some multi-tracking in evidence on the album.

What can I say? This is a record that has to be experienced. The record consists of one song divided up into six movements. The song is called **Lark Movement**, and the movements are unnamed. The first movement is the longest and takes up most of the first side of the record. It is bizarre. The second and shortest movement fills up the remainder of side one and it is strange. The remaining four movements are of equal length (approx 5:30) and they are, in order: weird, weirder, boring and horrible.

In defense of the record it was well recorded. It was a clean recording with a very good quality. The record cover is also attractive. It features a pretty japanese woodcut of birds in a tree. This picture wraps around to the back of the album also. The song and label information is featured on the back of the album. I note that this appears to be only the second record released on the **Complex** label.

In conclusion, I cannot recommend buying this album. The music is too quiet to frighten the neighbours, yet at the same time is very obtrusive. The music is so strange to ignore. This is an album to avoid.

One final note. After acquiring this record I have had the disturbing feeling of being watched by aging hippies. I hope that it is my imagination because the thought of people listening to this music frightens me.

(the other) Dr. Ernie (the original)

Complex Masthead of the Week

Well, well, let's see... We seem to be down to 6 pages this week, after three weeks of plenty. Actually, we did not lack contributions (not that we couldn't use more) but Tom has been getting more and more temperamental lately, and tonight he became very insistent that we should only produce a short issue. Eventually, the rest of us (not including myself — I avoid pointless arguments) gave in, and we cut out several articles, some artwork, and lots of space, leaving only the timely and informative articles you see squished before you. Opinions are welcome, but we prefer them phrased politely.

Please note: if you submit a contribution, we will publish it in the next issue, unless it needs to be reduced, in which case it might take longer. (Reasonable contributions, I mean).

I guess I should get to the thanks part of this masthead. Thanks are due to our production crew: Tom (6), Rick (arguing against 6), John (typing, I-O, layout), Paul (typing, layout), (and documentation), Camille, Kevin (typing), Barb (proofreading),

Why Bother With CS?

The University of Waterloo is famous throughout North America for its computer science program. In the past few years there has been a great influx of students entering this program with due cause. As a result the computing resources of the University have been greatly strained, causing restrictions to be placed on students entering the CS program. While these restrictions may be necessary, they are causing severe damage to the quality of the program. As a result, some gifted CS students (especially those who have previous computer science experience) are transferring to other disciplines.

There are 3 major problems with the first and second years of the CS program. The first problem is the restricted access of students to the program. The second is the requirement for the students to take CS 140, CS 250, and possibly CS 180. The third is that creativity on the part of students is stifled by the rigidity of the CS program.

The requirements for the above courses should be lifted if students can prove that they understand the work involved and the language in question. If this can be done (i.e. by writing an exam based on the appropriate material, as done in first year chemistry, and perhaps completing a sample program) then these students should be given credit for the course. In place of taking another course these students would have the option of doing computer science work for professors and receive credit for this work along the lines of an Integrated Studies program.

Advanced or enriched CS courses (similar to the advanced calculus and algebra courses but with more practical applications) that avoid the basics of programming could be created for students who already understand the material that will be covered or who have a high aptitude for CS.

The above suggestions will decrease the work load on the lower-level computing facilities thus allowing more students into the system. The work that these students will perform will free up time for professors and provide valuable experience for computer students. This will increase the flexibility and efficiency of the CS program.

Igor and



P.S. We are writing this article to encourage discussion that will hopefully lead to some improvements in the computer science program. Any comments or criticisms will be appreciated.

ISSN 0705-0410

mathNEWS is a weekly (albeit occasionally less frequent) publication funded by, but otherwise independent of, the Mathematics Society at the University of Waterloo. Content is the responsibility of the mathNEWS editors and staff.

Any opinions expressed herein are those of the authors and not necessarily those of MathSoc or mathNEWS.

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Editor: Cary Timar

Old mathNEWS

Most people just simply throw away their old copies of mathNEWS when they are finished reading them. This, however, is a large waste of a potentially valuable resource. One could always keep their old copies for future reference, but nobody in their right mind would do that. Instead here are a few more creative suggestions:

Inundate Needles Hall with it.

Use it for making paper airplanes.

Paint them red and green and make frightening Christmas decorations out of them.

Use it for engineering degrees.

Line pet cages with it.

Wrap fish in it.

Crumple them up and then use them to dry out your boots.

Make paper cups out of them to drink water but the ink probably won't be very good for you.

Send them to Ethiopia.

Make chain mail out of the staples.

Shred them and use for insulating your attic.

Cover tables with them instead of tablecloths.

Glue them together to make a hang glider.

Gift wrap our imaginary Fed Pres in them.

Use them for plumper litter.

Twist them into rope, and hang your best enemy.

Use as a false cover for dirty magazines.

Bury Uncle Tom's Cabin under them.

Shred them and add them to your corn flakes for fibre.

Stuff them into your shoes so you'll look taller.

Use them for arson. [Ed: mathNEWS does not counsel arson.]

Wallpaper your room with them.

Use them to wipe up embarrassing messes.

Let them accumulate to create a potential fire hazard.

Cover them with maple syrup and masquerade as eggo waffles.

And many other useful things.

such a cute girl! Maybe we can go drinking together again sometime.) dan, Ross, Tim (pizza eating). Without these people, production might have taken longer. (Without both of Tom and Rick, it would have been faster, I suspect, but I shouldn't complain, I didn't do anything.)

I also would like to thank all those who contributed to this issue, even if they weren't published. Thanks to Capmin Cockroach, Chef Al, Adam Bergert, M.R. Daigle, Maharishi Yogi, proud paper clip, Igor, dan, Watts, Georg, Cary, Scooter!, Dirk, Tom, John, and MathSoc. Thanks also, to Melvin Vockler's Little Brother, and to Centre of Gravity, for their artistic contributions. Sorry we didn't publish them.

So how many of you figured out that this is still the mastHEAD? Come on. Admit it. It did take you a second to catch on, didn't it? By the way, did you notice that dan did dye his hair? You can trust mathNEWS. The kids I'm marking still don't seem to understand that mathNEWS can get them bonus marks! I thought they'd catch on faster.

Till next week...

Alfred Ed Cary von Newman