

V.34 NO.6

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math NEWS

CENSORED



100% Grade A MathSoc Approved

Crystal Ball

A glance at upcoming events

Cinema Gratis
Apr 4: <i>A day at the Races / A Night at the Opera</i> (CC @ 9:30, exc. Apr. 4 @ 8:00)
Arts Centre
Mar 31, Apr 1: <i>UW Spring Concerts</i> (\$4.00, \$2.00 stud/seniors)
Apr 5: <i>40 King Street South, Upper</i> (UW Arts Gallery)
Apr 7,8,12,13,14: <i>70, Girls, 70</i>
DCS Courses
Apr 2,4: <i>Advanced CMS</i>
Apr 3,5: <i>Introductory UNIX</i>
Apr 9,10,11: <i>WATFILE</i>
Apr 16,18: <i>UNIX for Doc'n</i>
Apr 17: <i>APL Seminar</i>

Notes: DCS courses are free of charge, and usually consist of two or three one-hour lectures. Contact DCS for registration forms and more information... *Cinema Gratis is free, naturally...*

What not to use BASIC for?

Contrary to popular belief, BASIC is, as we hinted two weeks ago, a very good language not to use in many, many projects. This article will outline several examples of where BASIC should not be used.

Don't use BASIC for systems programming. If you do, your VAX operating system will end up running as fast as a Sinclair ZX-81. In some applications, however, this might be deemed an advantage (i.e. you have a cast on each of your fingers and you can only type at 0.5 wpm anyway).

Do use BASIC for large accounting systems. Accountants deserve systems that are slow, expensive and are out of use 50% of the time because of hidden bugs.

Don't use BASIC for learning to program. According to the famed CS professor Dijkstra, it causes permanent brain damage. If you can, learn Pascal, C or something structured at first. If you are, however, in Arts or the Teaching Option, you could start with Logo.

Don't use BASIC for terminal emulators unless you are trying to emulate an *early-model* teletype operating at 110 baud, uppercase only.

Väinämöinen & co.

Hey, Lisa!

On behalf of those who helped and worked at the Wine and Cheese, who saw in its organization and implementation, I would like to commend Lisa Seabrooke for her motivation and spirit throughout the creation and production of the MathSoc Pretty in Pink Wine and Cheese which was a great success. She put in lots of work, time, and effort into most of its operation and she deserves much thanks. She made it happen. Ask her to see the great pics.

From the Gang.

Glosette

Will you volunteer? We need someone to rid the Gazette of its recent fixation with Shadowed Boxes around articles. From its first manifestation earlier this term, it has grown to dominate the newsletter's graphic presence!

Apart from being visually repugnant, the Shadowed Box distributes pools of undried ink to the reader's apparel. Therefore we propose:

1. The practice shall cease.
2. The wizards of layout shall find other ways to fill space.
3. Instructions on how to voucher to Information Services for dry-cleaning costs incurred shall be published forthwith.

Exercise your right to a clean Gazette! Down with Shadowed Boxes!

One Saturday 17th...

If you were there, I don't have to tell you how great it was: the music, the snacks, the people, the wine. It was even better than the summer. Sure, having to keep an eye on your coat was an inconvenience, but after a few glasses of your favorite wine and you forgot about it. Some went home cold that Saturday night, they forgot it so well.

I had a great time forgetting. After four free glasses (having worn my tie) of some Remy Pannier Anjou, I didn't care. After four more glasses (by this time I could have drunk water and not been able to taste the difference) I was starting to come alive. So I bopped for a while.

And were there a lot of boppers! Took them a while to get sober enough to dance, true, but they soon started. There were even some engineers, all Pretty In Pink. Where they got the pink ties, I don't know, but we showed them a party. Over 300 people, a packed dance floor by 11:00pm, lots of eye make-up, a girl with wild stockings (who forgot her boots), some very good inexpensive wines, a strange frequency of orange coveralls, pink hairdos, and visiting sisters, and lots of cheese to eat. The biscuits weren't bad either.

We had a time! If you weren't at mathSOC's Wine and Cheese, you have my sympathies. But heed this warning: there will be another one next term (could we possibly deny you?) so start resting and preparing now while the rest of us search for sobriety.

Riddlequest

Here we have the last issue of Mathnews this term, and so it is fitting that some worthy riddles be served up to the (by now) all-to-discriminating taste of our readers. Solutions to these riddles will be posted outside MC 3032 next week.

1. Why not start simple? If you're clever, these three commonplaces will be easily solved:

When I lived I fed the living; / Now I am dead I bear the living; / And with swift speed I pass over the living.

What goes up the chimney down, but can't come down the chimney up?

What is that which is too much for one, enough for two, but nothing at all for three?

2. If you want to be long-winded, try solving this enigma in the dark:

What, of things in the world, is the longest and the shortest, the swiftest and the slowest, the most divisible and the most extended, the most neglected and the most regretted, with which nothing can be done, which devours all that is little, and enlivens all that is great?

3. This gem-riddle recalls classical verse by describing an object in the simplest, utterly different way:

As soft as silk, as white as milk, / As bitter as gall, a thick wall, / And a green coat covers it all.

4. Although the rhymes in this homespun are rather strange (strained?), it still manages to carry the same metaphor all the way through and not reveal its solution:

Some weary creature I did spy / Roaming o'er the whole country; / From house to house he swiftly passed; / To enter in, he ne'er did ask; / At streams he paused but did not drink; / At rivers broad he seemed, I think, / To break his back, but then to stride / Straight up the back, again to hide.

5. To conclude this conclusion of Riddlequest, I again quote from the Exeter Book of Old English Riddles. This riddle is a dire warning from the Saxon days to those of us in spiritual torpor:

I've heard tell of a noble guest; / man entertains him. He's not prey / to hunger pangs of burning thirst; / age and illness are unknown to him. / If the host serves him well, satisfies / this guest who must go on a journey, / both will be happy in their home, live in prosperity, surrounded / by a family; but there'll be sorrow if the host neglects his lordly guest, / his ruler on the journey. Think of them / as brothers, fearless of each other. / When they depart,

together desert / one kinswoman (their mother and sister) / both suffer hurt. Let him who can / put names to the pair I describe - / the guest, then his servant, the host.

Answers to last issue's riddles: 1. eye, tongue, night and day, 2. a man and woman riding horseback (woman is riding sidesaddle), a rope, the dew, 3. gnats, 4. a fish in a stream, caught by a net

Available (Unavailable)

Barbara M. McG.: Your name seems to be cropping up everywhere. See you in May in that MTHL class (the only compulsory one), and good luck on Finals.

Creation Unlimited: Unlimited supply of new and used universes at reasonable prices. Good for those who like the **spaced-out** feeling. 555-2001 and ask for Lourdes.

Notice: This is the last **mathNEWS** this term. For those of you in 4B, congratulations and take care. For those in 1B, you made it through first year. For 1B, 2A, 2B, 3A, and 3B, as well as those of you in 4A due to stream switching, have a good summer and we'll see you in the fall. And of course, to every last one of you (even Barbara M. McG.) Good luck on your finals. -- **mathNEWS**

Special Offer: Free Room available in addition to other benefits for editorial concubines at **mathNEWS**. Should not interfere with studies or classes as mainly restricted to later evening hours. Apply at **mathNEWS** or ask your coordinator for an interview in second round jobs.

Now available: (At least they were supposed to be at press time) MathSoc Rugby and Sweat-Shirts have arrived. Come to the MathSoc office and get that one you ordered as soon as possible.

Has anyone seen my sanity?

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Editor-in Chief: Tom Haapanen

Assistant Masthead

I thought that as Assistant Editor in charge of mathNEWS production, I really ought to write an *Assistant Masthead* to thank everybody who helped with mathNEWS production this year. Thanks to all of you, and in particular to Tom Ivey.

This is our sixth hectic, last-minute production night, and once again things are not ready for production (because they are not yet typed into the computer) until far behind schedule. Those people who showed up to help with production actually had to put up with our horrendous lack of organization; moreover, they also were subjected to Watts' taste in pizza, and to my utter imbecility. (I am the only person ever to have boxed with a balloon and lose.)

Anyway, the production night people were: Tom Ivey (all issues, did typing), Tom Watts (all issues, edited in chief and was generally indecisive), Tom Ivey (all issues, exacto knife operator), Scooter! (all issues, showed up and must have done something), Tom Ivey (all issues, racing stripes), Ernie (all issues, lots of general helping-type work, conversation), Tom Ivey (all issues, layout), Stewart (most issues, three fun covers), Tom Ivey (all issues, paste-down), Saeed (three issues, layout and complaints about pizza with meat), Tom Ivey (all issues, numbering), John Tauro (issues 3 and 5, high quality covers), Tom Ivey (all issues, running to the I-O room), Jane Roberts (issues 4 and 6, layout and complaints about cut-out), Tom Ivey (all issues, generally doing things other people didn't), Brian Scarce (issue 5, presence), Tom Ivey (all issues, lack of ability to procrastinate), Fraser Simpson (issues 1 and 2, Imprintession), Tom Ivey (all issues, eating pizza), dan Schnabel (issues 4 and 5, typing and layout), and MathSoc people (Ross and Anne, who tried to show an interest). Further, I should thank all of the people who showed up and did absolutely nothing except talk, so Watts forgot them: Guppy (issue 1), Dave Till (several times), WRoss Brown (occasionally), Dorothy (issue 2), Bob Armstrong (showed up to help for issue 3, but left because he didn't see anyone he knew), Dan Lyons (issue 5), and many more who even I have forgotten (my apologies).

Thanks also to Cary, Charles, and even Chuck Timar for being me when I wasn't. Thanks to Len Popp and Scooter! for help in distribution (carrying hundred kilo boxes across campus). Thanks to all those people who openly read mathNEWS, to all those who came looking for copies at our office or at MathSoc, and to all those who talked about its contents, pasted them up on their office doors, or referred to them in the CS452 courses they taught. You inspired my confidence in our potential.

Thanks to everybody. It has been one of our best terms ever.

Alfred Ed. Cary Timar von Newman
Assistant Editor

Another Assistant Masthead

Hi guys. It's only me (Scooter!), doing a semi-masthead. Our recently fired production manager (when the Editor saw that he was writing a masthead) covered those that helped with production. I am going to, as Assistant Editor for News, to thank the writers that gave us such good content this term.

Okay, Watts was quite a regular contributor, with at least the masthead, but frequently reviews of Cars, terminals, the Apple Macintosh, as well as the Editor's ramblings and the tax column. Next was Vainommen (I hope desperately I spelt that right) with the comments on BASIC, as well as Tape Tangles. We had Talvey, who seemed an unending source of

articles including such regulars as Curious George, Riddlequest, and the Personals (Impersonals) column. We also had Cary Timar scribbling out the MathSoc report, at first on the back page of the Chevron, and then when he was caught merging the two together, he wrote it based simply on the MathSoc minutes. He also wrote some of the later ChevMath (Blame him for ChevROS).

Ernie kept us up to date on Watsfic activities, while Marcel did the Entertainment column and sometimes even a bit of news. Boy Gord and Amy have sent us a few things which we have gladly carried (good writing style, and humorous). WRoss Brown provided us with Second Degree Burns (Health Services is administering treatments for us), as well as Young Frank Einstien. Brian Scarce gave us the mathNEWS work report, Georg Mandrive sent in a couple of articles, ERoss Morrisey made a Speech from the Throne in Prez Mumbles, while Lisa Seabrooke has kept us up to date concerning the Math Frosh Orientation (while swallowing her foot at the meetings).

Scooter! (me) actually did something, too (regardless of what Mr. Timar says)! I spent most production nights working more or less constantly from 8 am to midnight (at least) entering articles, editing speling mistakes, and getting screamed at for Cary's MathSoc reports. In addition, I have actually tried to follow the happenings on campus, pressed MathSoc to get their announcements in on time, designed the Calendar, wrote the first two ChevMaths (I confess!), written the Prof of the Bi-Week, various opinions and commentaries, and have tried to keep on top of any problems with the computer systems. By the time production night actually comes around, I am starved, dead on my feet, in need of a shave (I have been for over a year, I wear a beard), and not willing to sit one more minute at a terminal. Cary wasn't sure what I did at production nights: I recovered.

Now I think I am just going to sit back, light up my pipe, grab me bottle of scotch, and have a nervous breakdown. Brain disconnects... (I'm okay! I'm okay! I'm okay!

Two assistant mastheads!!! I don't even get a heading, since mastheads never have any. And two points smaller type yes... The whole world's going the way of WIDJET, I tell you.

In any case, the term is (finally) over, and I have survived without any imminent course failures. Naturally, some cynics attribute this to the fact that I am on work term and not taking any courses. However, I am not daunted by these near-sighted mongrels — I intend to pass next term (which is a school term) at least twice as many courses as this term! The term's contributors are, I expect, fully listed (some more than once) in the ass. mastheads. (mastasses!) So, I will only list tonight's staff & authors. First, we must thank WRoss Brown for his contributions to mathNEWS over the past years; Matt the Mathie and Young Frank Einstein certainly left their mark. Goo luck to you, Ross, in your Second-degree life. Also congrats are in order to Caps, who is also leaving us, though not before making it to the cover this issue. Caps must be thanked for revitalizing MathSoc a couple of years ago.

Anyway, tonight's authors: Tom Ivey (riddles, many others), Georg & Vainomoinen (control, BASIC, exams), Scooter! (news), Marcel (entertainment), Cary (not Fraser Simpson (cryptic, math column)), Waits (masthead), Alfred & Scooter (asst. mastheads). Authors include (oops, repeating myself already). Again: staff included: Jane Roberts, Tom Ivey, Ernie, Alfred, Scooter!, Ross Morrisey, Tom Watts, Anne Kristensen, Tony's Pizza and others, most likely named in at least one of the assistant mastheads. And yes, I should throw in another plug for mathNEWS subscriptions here: for the piddly sum of \$2 you can enjoy our fine rag in the summer term. We'll mail first class to your work-term address. Just fill out the form in this issue and drop it off at either MatSoc or in our 3rd floor box.

I think I'm done! done! done! done! (clarification: done -> no more editing (this term) -> freedom!) Again thanks to all who did something either tonight or this term, and have a good work term (or summer vacation if you're in regular). And I'm finished! The editor is dead; long live the editor...

A New Paper?

Over the past few issues of Imprint I have debated writing a letter to them complaining about the decline in the quality of their news coverage on campus this term. However, in the March 22 edition of the WLU Cord Weekly, I discovered that the Feds were considering starting their own paper to cover campus news. I thank a chap sitting beside me in my Economics class for having set the paper on the chair between he and I, as I had never read the Cord Weekly before and with it perhaps have a first in **mathNEWS**, a news scoop (Scoot!?).

Roughly when George Elliot Clarke became News Editor, the reporting done by Imprint changed to deal more with provincial and federal actions concerning education, employment, and other items of general concern and controversy for the student populace. As the term progressed, the reports started taking increasingly active, and sometimes not universally supported stands, while George Elliot Clarke's column 'Speeches' gained a notoriety for his views of what were viewed to be of a rather radical nature.

A short aside here. Presenting news in a proper journalistic manner is to present facts and any conclusions drawn from them using the commonly accepted methods of logical deduction. To add one's own opinions destroys the integrity of the news.

I don't object to the idea of the Feds having their own paper if it is editorially independent. However, any paper that relies on some other source such as a student society for funding is never totally independent as it knows that a highly offensive article could prompt the society to cut off all funds. While I know that **mathNEWS** is fairly free to take a stand so long as it has factual evidence to back its stance, the Fed paper, due to the exposure it would have, may not have that luxury.

In the Cord Weekly article, George Elliot Clarke argued that he lacks the manpower to give the Feds the coverage they need. The Imprint staff is at least fifty per cent larger this term than last winter under Len Gamache. I'm sorry, George, that argument doesn't wash. **mathNEWS** has a better paper now with a smaller staff than at times in the past with large staffs. Whereas we could use any extras available here at **mathNEWS**, they seem to be sitting about with little to do at Imprint.

A Fed paper would give them some place to work, but it would also draw many of our more talented writers. To lose someone like Tom Ivey, Tom Watts, or W. Ross Brown would not only remove a great source of talent, but would have somewhat of a demoralizing effect on the staff remaining. Imprint tends to operate with a scorched earth policy when obtaining staff, we ask the Feds to be more considerate to their society cousins. From a source on the Imprint staff, I understand that many are severely split concerning Mr. Clarke, which would likely break off to support the new paper. This would leave both understaffed, and therein begins the raiding of the society papers. (As the most frequent of the society papers, **mathNEWS** tends to view the defence of the society papers in general as a responsibility it must accept.) I would rather know if there

is some way in the letters patent of Imprint whereby the student body may place into operation bylaws to protect us from another Chevron developing.

Scooter!

(News Editor)

Feds Dissatisfied with Imprint

Waterloo(mN): Brought to our attention by an article in the Wilfrid Laurier weekly newspaper *The Cord Weekly*, **mathNEWS** has been looking into reports of a growing rift between the Federation of Students and the campus student paper Imprint. According to the author of the article, since January the Federation of Students has been becoming increasingly upset with the manner in which Imprint has been reporting upon Federation policies, services, and activities, as well as a general opinionation of the news articles. The Cord article continued to say that the Federation has been considering the establishment of a new paper funded from the present Federation fee to publish weekly and compete with Imprint. The author told this reporter that the News Editor of Imprint, George Elliott Clarke, denied any falling out between the paper and the Feds, although recognizing that, due to a shortage of staff, Fed coverage was off somewhat.

The article reported that the Federation would maintain the paper as an editorially independent operation with four paid staff members to manage the journal's operations. Targeting the paper to operate on a break-even basis, an official decision will be made between press time and delivery time.

In an interview with Tom Allison, all of the points of the article were confirmed. Discussions of close to half an hour with Mr. Clarke, however, revealed that the paper was attempting to reach much further in its news coverage, which it considered was a much underdeveloped area, to deal with a much wider variety of groups, stretching from the University Senate to the student societies and clubs. Pointing to space limitations as thus limiting the amount of Fed coverage provided, he stated that a thorough reorganization and restructuring of the news area was underway.

Admitting personally that he felt that the Federation of Students mishandled the situation by not presenting their complaints sooner, he is still trying to get them to negotiate an agreement as to coverage that would overcome the present impasse. He admitted that he felt any group should feel free to start a paper of their own, but preferred that it be started in a positive manner, not to confront something that was not popular with all.

At the suggestion that there was a rather extended rift within his staff between those that support him and those that oppose him, and that those that oppose him may jump ship to the new Fed paper, he said that he would be disappointed to see them go, but that he expected the Imprint staff to grow beyond that if he can open the paper's operations as much as he would like. His personal feelings are that while the paper is of a good appearance, its content is not as strong as it should be. This is the area where he will concentrate his efforts.

Entertainment

by Marcel Kahnt

This week's column is on the shorter side as this is the end of term. On the list this week is Cinema Gratis' gala night of Marx Brothers, and the movie **Police Academy**, showing at the Lyric. As well, we have a look at the tail end of this term's happenings at the UW Art Centre, and a review of the term from a view of how survivable it has been.

Movies

Okay, I spent three days trying to decide what I was going to see. The choice was between **Tank, Footloose**, and what I eventually went to see. **Tank** sounded interesting, and I have always liked James Garner, but the story sounded extremely predictable. **Footloose**, well my sister would like it, I wouldn't. So long as I pay to get into the movie, I will only review what I think I might like.

I got to the Lyric Saturday night and saw two line-ups, one for those who still had to buy their tickets stretching to one end of the block, and one for those who already had their tickets stretching to the other end of the block. I went to the bus stop and went home, remembering that there was a Sunday afternoon matinee showing.

So what was the movie actually like? Picture **Stripes** set in a police academy, with no big name actors, american flags, and the Bank of Montreal building in the opening scene. It was shot in Toronto with at least some of the cast being Canadian (cheers to the emotional role played by Shirley Hill as the mother of the fat police cadet. Her really son is proud of her (and paid me to include this mention (remember Steve, I want the \$10,000 in small bills.)) I cannot honestly say that it was as good as **Stripes**, and I haven't seen either of the **Porky's** movies to compare in that way, but it wasn't a bad movie. It will likely be on Pay TV soon after it is finished at the theatres, and then after that on one of the commercial networks. It's a good enough movie, but you can see it soon enough on the commercial networks.

Cinema Gratis

Often listed as the best of the Marx Brothers movies, **A Day at the Races** and **A Night at the Opera** are a top choice for a break from studying to recover your sanity on Wednesday night. Starting at 8 pm (as it's a double feature), and being in the middle of the first week of exams (when no mathie beyond 2B has an exam), it is a reason to hang about UW for that one week.

Arts Centre

On Saturday and Sunday, we have the **UW Spring Concerts**, starting at 8 pm. Saturday night at Humanities is the UW Spring Band Concert with both the UW Concert Band and the UW Stage Band. Sunday night has the UW Spring Choral Concert, with both the University Choir and Conrad Grebel Chapel Choir at Theatre of the Arts. Then,

on April 7, 12, 13, and 14 at 8 pm and April 8 at 2 pm in the Humanities Theatre is a show by KW Musical Productions entitled **70,Girls,70**. At press time, we only had limited information on these two items, so we apologize on the scanty coverage.

At the Arts Centre Gallery from April 5 to June 10 is a show entitled **Forty King Street South, Upper**. Covering ten years of work by eighteen artists, it is the best of a vital artists' colony in this area.

Real Feedback

To the Editor-in-Chief:

I'm just dropping a note to let you know that I've been impressed with the improvement in the quality of the **math-NEWS** issues distributed this term. I don't recall the paper having as much support in the past. The paper is beginning to present articles which are informative, entertaining, humorous, technical, and opinionative. Congrats to you and the contributors.

Matt Lachance
3B Coop CS

Well, thanks for the compliment, Matt. Some of the thanks must go to the Imagen laser printer that DCS has made available. In addition, people like Tom Ivey and John Tauro have lent their talents to give an almost professional appearance to this publication. This is *your* publication; if you want to see something, tell us, and we'll do our best.

WPIRG?

Have you ever paid any attention to WPIRG? Me neither, until a roommate in ES started telling me about the topics in which they were delving. This sparked an interest on my part until I started looking into what they are doing with the fees we pay them.

WPIRG frequently tends to do its research by coming to a conclusion and then gathering facts to support the conclusion. Usually WPIRG, in presenting its findings, will tend to discount alternate views to what it has concluded (have you ever tried arguing in favour of the Cruise with them?) as being based on faulty reasoning. As a result, I have heard WPIRG described as the Waterloo Political Lobby Group.

There is a general latent dissatisfaction with WPIRG's action of late among those familiar to some degree with its activities. The general student body tend to view it as simply another fee which they didn't like to pay, but which they just didn't get around to refunding. Maybe WPIRG has proven, to the general student body, to not fulfill any use. Maybe we should not have the deduction automatic, but instead optional, chosen when you pay your fees.

Scooter!

Debombing

How to Overcome that Hangover

After the Wine and Cheese, MGB, and whatever end of term events you can get into, you come across a rather difficult problem if you are normally sober, drying out. Recalling the days when I occasionally did dry out (years ago when I didn't drink at times), I developed a few methods that helped to deal with a terrible throbbing head and a churning stomach that most people look upon as the morning after.

If you are like anybody else I know, the idea of drinking a raw egg is simply repulsive. What suprised me one morning when I looked at the egg sitting in the bottom of the glass (the closest I ever came to drinking it) was that it worked just as well boiled, fried, or poached at settling the stomach. After a couple of hours, I had no trouble taking an aspirin (actually, three), to quell my head.

Another discovery is that drinking water helps wash out your system. You likely have heard that alcohol dries things out. By replacing the water that you have lost (that is part of the reason why your bladder tends to be so active while you're drinking, alcohol sucks the water out of much of your body and drains it out to the bladder), you can overcome much of the aching in the various joints and muscles by replacing that substance they so sorely lack, water. Of course, it will keep you running off to the washroom as some of the remaining alcohol is washed out, but it does the job quicker than simply suffering.

A third solution that I started using about a year ago is just to keep drinking. That means that you can't simply sleep it off, you must get up three or four times a night, every night, and have something to drink, but it does the job of avoiding a hangover.

Scooter!
(The Loveable Lush)

Finals

A Checklist for the Compleat Mathole

Got Everything?

- pencils, pens, rulers (Mathsoc pink, blue, and white), calculators (HP-41C with 2 TI-30s as backup), batteries, erasers (nearly forgot!), kleenex, bedroom slippers, cushion (those wooden chairs are hard!), aspirin, water pitcher & glass, and (oh yes) my ID card.

Studied Everything?

- I think so; pored over the course texts three times last night, found forty-one new typos (to whom to you complain about these things the prof? the bookstore?); copied out my notes for the fourth time yesterday; accosted four profs and six TAs with various trivial questions; completed five old finals from the library; still, I'm a bit nervous ...

What about Theorems?

- I have this problem with names; I remember Euler's Theorem and Lagrange's Theorem (which one?) because they have memorable personal names; results like Ppn 4.2.1, Theorem 12, and Lemma 2.1.4(a) are harder to remember, especially when texts in different courses overlap in section numbering.

Sounds like you're in pretty good shape. Here are some Do's and Don'ts:

Do bring your ID card. (It's worth saying this twice.)

Don't vomit during the exam. This could start a chain reaction as well as making your paper "unmarkable".

Don't eat before the exam. This increases the chances of vomiting.

If you have to vomit during the exam, **don't** vomit at the beginning. This adds to the sinking feeling everyone else is experiencing as they take a quick look through the exam questions.

Don't whistle, hum, tap, sneeze, sniffle, or belch during the exam. It drives people to distraction (especially me!).

Do well and join me for a drink after the exam ...

- Georg Mandrive

MathSpeak

It's been a long, hard winter, and your valiant author (of **MathSpeak**) has been lost in the barrens for several weeks. Now, for the last issue, MathSpeak is staging a triumphal return. Because time is running out for W84, this column is (mainly) devoted to abbreviations.

jedd - not a man's name, but rather an acronym for the last letter of the alphabet; used by a select group of MF profs.

Mathole - the hopelessly stereotyped "Mathie" image, as seen by the other (less important) faculties.

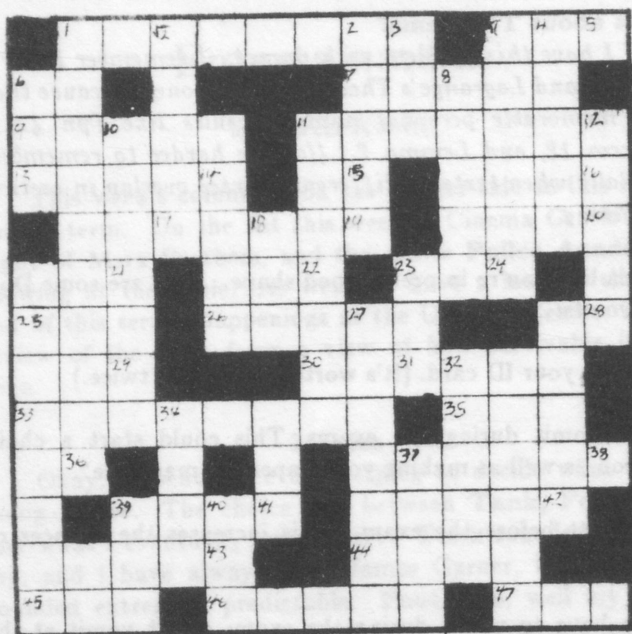
cruzzle - abbreviated crossword puzzle (eg. without clues or without solution (see pg. X, X^N(8,9))).

ting - acronym for "thing", usage similar to that of "jedd".

etaoinshrdlu - printer's jargon for a typographical error.

soln (or **solon**) - handy abbreviation for finals, etc.; for example:

sub. $y = \exp(x)$ imp. l.i. solns., fn. is nt. homo., etc.



Cryptic Gridword

— by Not Fraser Simpson

I have tried to hide most of the people who helped with **mathNEWS** this term somewhere in this gridword. Unfortunately, I couldn't fit everybody in. Sorry if I missed you.

Watch out! This gridword has words running in four directions!

Left (West)(H)

5. Some sound a joint. (3)
14. Heard questions about power. (5)
15. Sounds like a baked constant. (2)
16. Continent is reversed between notes. (4)
19. Runs on hidden tabasco! O terrible vehicle. (7)
20. Tied a coral ridge. (4)
21. Sharpen the sound of moisture. (3)
22. A famous sci-fi play, however you read it. (3)
28. Letters sound discerning. (2)
29. Emphatic note about restricted iron. (1,1,1)
36. About the right note. (2)
38. Short men confused their loud protectors. (6)
42. Bert's friend in the philosopher Nietzsche's works. (5)
43. Only n new stockings. (5)

Up (North)(K)

13. A number of letters reversed. (3)
17. Trace the new titan. (5)
24. Yes, fit the fresh, quarrelsome man. (6)
26. Note how she paddles to a point of colour. (5)
31. Skilled in sport. (3)
41. Called and confused the boy. (3)
42. Vesselss used in sewers. (5)
45. Fascinate between the others without a radius. (8)
47. Heard them loudly burn part of the sentence. (6)

Right (East)(Unix L)

1. Paper mixed up man with muscles. (8)
2. Eleventh letter. (2)
7. Tore the note confusedly, having read the front of the page. (5)
9. A clue for I am an unmarried couple. (2,3)
11. Sham cot confused high society. (7)
23. Exactly when I double a note. (3)
25. Hears and observes the ocean. (3)
26. Note the castle by the stream. (5)
30. He breaks brutes. (6)
33. This man keeps a deposit. (8)
35. We note the employment. (3)
39. Spoke about the Egyptian port. (4)
44. Has left a new whip. (4)
45. They say blood transfusions grow on trees. (3)
46. Note the new fort has a small farm. (5)
47. From the letter, it sounds like a word of disapproval broke his hip.

Down (South)(J)

1. Smoke to freshen breath of tree growing loud in a mine, right? (4,6)
2. Knock between two points of the coverings. (5)
3. Adjust the collection. (3)
4. Hears information about the knot. (5)
8. Husks contained by such affection. (5)
10. Man with skill at drawing goulash. (7)
11. The millionth notes on a small creature. (7)
12. A homonym is an ambiguous name transported. (5)
18. Sounds like time belongs to us. (4)
27. We own the sprite's royal person. (7)
32. Spins to hear birds. (5)
34. Hear the anchor lifted, though distant. (4)
37. If I ate the contained decree... (4)
39. Cunning in thusly acting. (3)
40. Company heard the liquid. (3)

MathSoc Report

At the regular MathSoc meeting on March 21, official approval was given to the transfer of one thousand dollars to the Orientation Committee to finance its activities this fall. In addition, last night (by the time you read this), there was a Video Party at Ballinger's which was approved at the meeting.

Among the announcements made were that the Feds ran buses to the Echo and the BunnyMen show, and that all of the student societies, including MathSoc, were being audited, partly due to the large size of the cash flow. At that point, MathSoc adjourned, the shortest meeting with quorum in MathSoc history.

Scooter!

The Prof Control Panel

The University of Waterloo will be installing the Prof Control Panel in various desks throughout the university on a trial basis in order to try to improve class attendances. Here is a spief excerpt from the operator's manual to accompany each panel explaining the the functions.

Prof Eject Button: for that boring part of the lesson when you just want to send the prof through the ceiling.

Prof Nuke Button: the same effect as the eject button but with a more dramatic mushroom cloud effect. (NB. usually fries the first two rows of keeners in the process) Radiation suit not included.

Prof Zapper: A quick charge of 500,000 volts can easily give a prof the message to get on with the lecture.

Prof BetaScan: A special feature to quickly search through a complicated lecture to review that point you missed.

Prof Volume: Allows you to sit in the front without shattering your eardrums, or in the back and still hear the prof.

Prof Rewind: Time warp back to an earlier point in the lecture.

Prof Fast Forward: Comes in useful when the class is only halfway through and your stomach is growling for a donut.

Prof Brightness Control: To dim down the luminescent ties worn by some of the profs.

Prof Record: This will record the remainder of the lecture on either videotape or a cassette for you to (re)view at home. The panel will automatically choose a premium or a cheapo tape, based on the quality of the lecture.

Prof Stereo/Mono Switch: Changes professor's voice from a monotonic drone to a high-toned whine with spurious glitches.

Prof Balance Control: Allows the student to adjust the lecture's ratio of proofs vs. examples.

Prof Noise Reduction: Eliminates spurious examples, redundant lemmas and useless anecdotes.

Prof Font Control: Choose from a gallery of blackboard fonts, ranging from Greek, Hebrew and Chinese to Bodoni and Old English.

Prof Gear Selector: Choose 'D' for normal lecturing, 'L' for low-gear grinding through DE's or 'N' for catching your breath after an exhaustive and frustrating proof.

Prof Language Selector: Choose Chinese, Czech, Yugoslavian or Pidgin English.

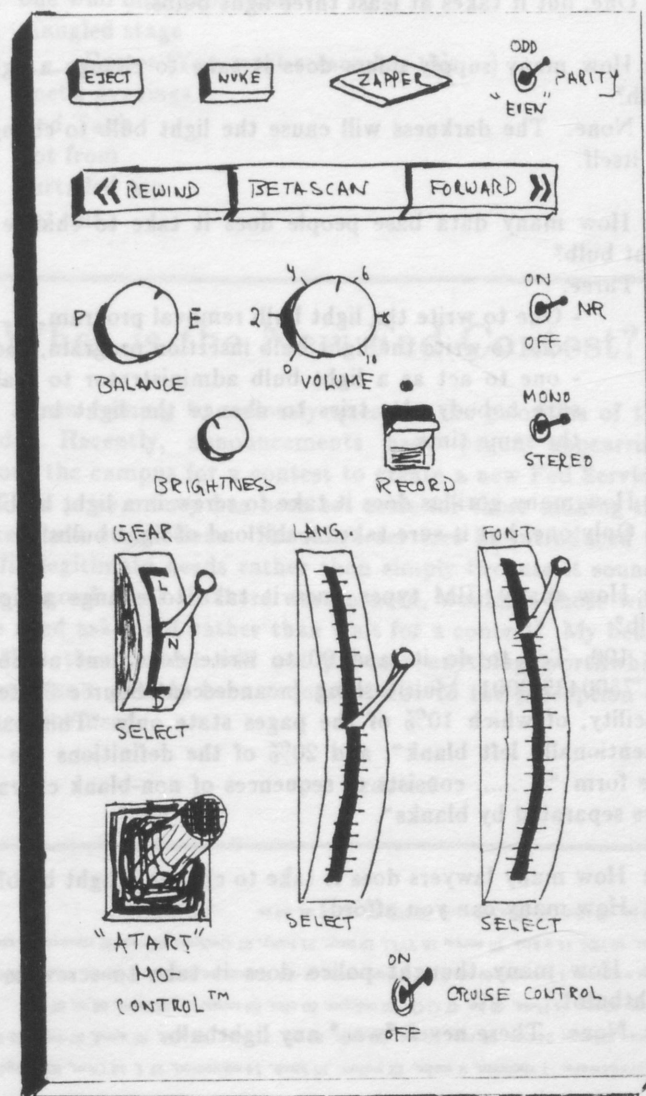
Prof Parity Switch: Select either an odd prof or a somewhat more evenly behaved one.

Prof Motion Joystick: Control the motion of your prof with an original Atari joystick (sorry — no fire button). During rough lectures, make him walk out the door. On the better ones, help him reach the top blackboard in MC2065.

Prof Cruise Control: Set the most comfortable cruising speed for your prof. It is advisable to set to below the legal limit of 50, though (boards per lecture, that is).

Note: This is *not* the original Prof Control Panel submitted to us. The original, commonly known as PCP Mark I, was, alas, lost by one of the Assistant Editors (to remain unnamed), and since the author had wished to remain anonymous, we were unable to obtain a duplicate. If you are reading this *and* are the author of Mark I, we'd very much like another copy — Mark II does not stand up to a comparison test with Mark I.

Vainamoinen & Georg



A Canonical Collection

of Light Bulb Jokes

Q: How many Psychiatrists does it take to change a light bulb?

A: Only one, but the bulb has got to really WANT to change.

Q: How many programmers does it take to screw in a light bulb?

A: None. Thats a hardware problem.

Q: How many Jewish mothers does it take to screw in a light bulb?

A: None. ("Thats all right...I'll just sit here in the dark...")

Q: How many marxists does it take to screw in a lightbulb?

A: None: The lightbulb contains the seeds of its own revolution.

Q: How many jugglers does it take to change a light bulb?

A: One, but it takes at least three light bulbs.

Q: How many supply-siders does it take to change a light bulb?

A: None. The darkness will cause the light bulb to change by itself.

Q: How many data base people does it take to change a light bulb?

A: Three:

- One to write the light bulb removal program,
- one to write the light bulb insertion program, and
- one to act as a light bulb administrator to make sure nobody else tries to change the light bulb at the same time.

Q: How many gorillas does it take to screw in a light bulb?

A: Only one, but it sure takes a shitload of light bulbs!

Q: How many IBM types does it take to change a light bulb?

A: 100. Ten to do it, and 90 to write document number GC7500439-0001, Multitasking Incandescent Source System Facility, of which 10% of the pages state only "This page intentionally left blank", and 20% of the definitions are of the form "A consists of sequences of non-blank characters separated by blanks".

Q: How many lawyers does it take to change a light bulb?

A: How many can you afford?

Q: How many thought police does it take to screw in a lightbulb?

A: None. There never *was* any lightbulb.

Q: How many EEs does it take to change a light bulb?

A: None. They think it is a software problem.

Q: How many civil servants does it take to change the lightbulb?

A: 45. One to change the bulb, and 44 to do the paperwork.

Q: How many mystery writers does it take to screw in a lightbulb?

A: Two, one to screw it almost all the way in and the other to give it a surprising twist at the end.

Q: How many cats does it takes to screw in a light bulb?

A: You can throw away your light bulbs. Just douse the cat with gasoline, light it up with a match, and you'll have all the light you need.

ElseWhen

(mathNEWS 10 years ago)

Stay Tuned: This week **mathNEWS** ends its fourth term, with this, its 36th issue. Times have certainly changed since last winter when we had perhaps 8 people all evening and a few drifters wandering through; we now have perhaps 4 people all evening and a few drifters wandering through.. but we're still the only weekly on campus with a completely voluntary staff (though sometimes I wonder).

Useful Research Phrases:

A definite trend is evident -- These data are practically meaningless.

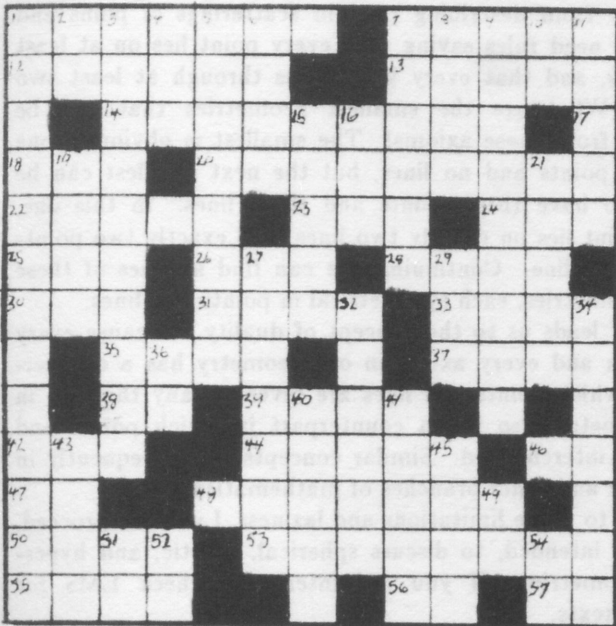
Three samples were chosen for definite study -- The others didn't make any sense.

A statistically oriented projection of the significance of this study -- A wild guess.

A careful analysis of obtainable data -- Three pages of notes were obliterated when I knocked over a glass of beer.

WCTOATFTO Start of the new year hopeful frosh, now no longer hopeful, had been given first year promises of 'Many happy returns' (hay P.C.B.) to entice enrollment. Calculus -- probably the first class of the year -- introduced these frosh to the wonderful world of **Mathematical Sciences** (damn the integrals; full speed ahead!). First year students, astounded that it was not immoral to drink (heaven forbid!) coffee in class, found veterat calculus students hard at work (anyone for a '71 or '72 ID?). Just as: for some delta approaching zero, and epsilon extremely small, class size was proportional with the day of the week. We just hope the illustrious prof did not suffer caffeine addiction while struggling so valiantly to keep order in the front row.

From mathNEWS, March 28, 1974



The Return of the Gridword

Yes, the Gridword is back. This puzzle originates from Terri Heale and Pam Aitken. No prizes are up because it's the end of term. However, this puzzle should be good practice for Fall. **Note:** The answer to 7 across is spelled wrong, but it sounds right.

Across

1. Green had one
7. PM's latest
12. mellow/coward
13. jail the commandant
14. learning
17. me, myself, *et al*
18. German physicist (1787-1854)
20. healthy limit rule
22. multiple goose
23. what a program won't, the first time
24. lambdas, rhos, and g___
25. past of 23 acc.
26. little one
28. "The ___ Themselves"
30. short Arthur
31. rent a drip
33. scene
35. mimicked
37. playthings
38. sun god
39. charged bits
42. cold and slippery
44. French slope
46. an existing letter
47. commanding officer
48. deliverer of good last words
50. ___ Moda
53. of meaning
55. starry lions

56. tu ___
57. a short direction

Down

1. erorr
2. not she
3. easy, Watson
4. aged
5. French wheel
6. split masticate
7. winter delight
8. much (2 wds.)
9. two brief functions
10. reversed needles
11. "___ Before Dying"
15. major artery
16. typical person, unemployed
19. perceive sound
21. randy
27. Theban Sphinxsolver
29. a grain
32. kidnaper's pay
34. scent
36. a kettle
40. one who oils (Leonhard)
41. mangled stage
43. ___ Porter (You must remember this ...)
45. poetic evenings
49. Red Tank
51. not from
52. curtailed asp
54. not out

What is the New Fed Contest?

I am coming to seriously question the priorities of the Feds. Recently, announcements have begun appearing about the campus for a contest to create a new Fed Service. \$175 in prize money has been set aside for those making the three best suggsetions. Shouldn't services be introduced to fulfill legitimate needs rather than simply because it sounds like a good idea? If there were a need, wouldn't those with the need ask for it rather than wait for a contest? My belief is that this contest will not produce anything worthwhile that hasn't already been requested due to the perception of a genuine need.

Scooter!

Across: 1. theorem, 2. sahya, 12. yellow, 13. klink, 14. education, 17. L, 18. Ohm, 20. 17thoptal 22
 gress, 23. run, 24. nus, 25. ran, 26. tot, 28. gods, 30. art, 31. tear, 33. acts, 35. aped, 37. toys, 38. Fe, 39
 ions, 42. ig, 44. Fiste, 46. be, 47. O., 48. eulogier, 50. atra, 53. semantic, 55. Homa, 56. or, 57. NE
 Downers: 1. typographical, 2. he, 3. demostary, 4. old, 5. roulette, 6. ewch, 7. sking, 8. a lot, 9. ain and
 coa, 10. FN, 11. a kite, 15. aorta, 16. TFCU, 19. hear, 21. lusty, 27. Oedipus, 29. oss, 32. ransom, 34. essence,
 20 pa, 40. oter, 43. Cole, 45. cers, 49. RT, 51. to, 52. sa, 54. in

Young Frank Einstein

doffs his hat to
a great university

At last, alas, it's time for me to graduate. If there were a really neat way to explain the simultaneous disappearance of myself and of Matt the Mathie, I would gladly use it, but frankly I'm stumped!! How, then, without getting maudlin, to close out five years of this nonsense?

1. I could make grand statements about why everyone should have a university education. My uncle Albert, a very bright cookie indeed, would probably never have publicized his (then ridiculous) ideas about relativity if he hadn't first had the opportunity to see what was known and what was unknown in physics at the time. If only 10% of us make such scholarly contributions, the cause of learning will continue apace.

2. If I felt like denying the inevitable, I might try to reassure myself that I am making the right choice to leave this university by saying that it is always better to leave loose ends behind you whenever you leave a stage of your life. After all, I don't want to become as insensitive and aloof as the greater part of the general public in my attitude toward higher education.

3. I could bow out in a humorous vein, perhaps wondering how many sets of parentheses I have forgotten to close in my writings over the last five years.)))))))))) There, that ought to do it. (Is life really just a big Lisp program?)

Well, I guess I feel a bit of each of the above. I can't be too final, 'cause I may be back sooner than expected! In closing, I'd like to paraphrase the great American computer scientist and cynic, T S Eliot:

*This is the way the world ends,
This is the way the world ends,
This is the way the world ends,
Not with a bang, but with a physical end-of-file.*

Ross Brown

Mathematics Column

— by Not Fraser Simpson

Well, as promised, here is another Math Column by me, the infamous *Not Fraser Simpson* (The real Fraser Simpson has long ago given up on **mathNEWS** and has stopped submitting Math Columns or Cryptic Crosswords.) Since nobody complained to us about the topic, I will continue to spew nonsense about Non-Euclidean Geometries. (As you will all remember, these are the geometries invented by the great mathematician, Non-Euclid.)

Consider a geometry, and some useful axioms for it. For a start, there should be exactly one line passing through any two points. If you include the line at infinity, any two lines intersect in exactly one point. To prevent the

geometry from describing random scatterings of points and lines, we need rules saying that every point lies on at least two lines, and that every line passes through at least two points. What are the smallest geometries that can be deduced from these axioms? The smallest is obviously one with no points and no lines, but the next smallest can be shown to have three points and three lines. In this one, every point lies on exactly two lines, and exactly two points lie on each line. Continuing, we can find a series of these finite geometries, each symmetrical in points and lines.

This leads us to the concept of duality. Because every definition and every axiom in our geometry has a counterpart in which points and lines are reversed, any theorem in the geometry also has a counterpart in which points and lines are interchanged. Similar concepts occur frequently in geometry and other branches of mathematics.

Due to space limitations and laziness, I will not proceed, as I had intended, to discuss spherical, elliptic, and hyperbolic geometries. If you are interested, check EMS for relevant texts.

Cheap Thrills

Did you think this issue was rather boring? That the quality of writing in this term's **mathNEWS** was really rather pathetic? Or that the issues looked really cheap? If so, we have a cure for your boredom: *A subscription for next term!* Next term, our staff will be practically new, with all the boring and/or incompetent editors and/or writers leaving for summer or work terms. How about it? Something completely different for (not \$1! not \$5! not even \$3!) **\$2.00** for the whole summer term. We promise that you will be hit with new kinds of articles, as well as the return of Sparky, dwarf and grmcfarlane (in case you don't recognize the names, you've been missing something...)

If you are willing to take the risk of getting totally off-beat and non-newsworthy articles for your **\$2.00**, here's what you do: Run to MathSoc office (quick! while they are still open!), and hand them your two bucks, along with the form below, filled out with your name and address. If you want to avoid the risk of your money getting lost, ask MathSoc for a receipt. You can also deposit the subscription in our box on the 3rd floor, opposite the C & D. In this case, though, it'd be safer to use a cheque. You can expect your first issue in late May (they'll be mailed 1st class.)

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