Friday, June 29, 1984
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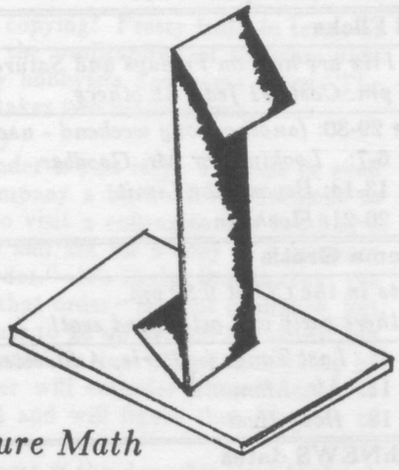
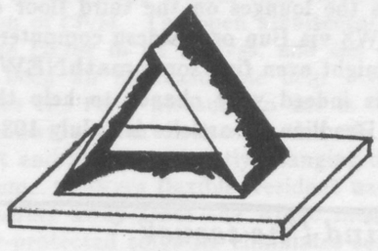
math NEWS

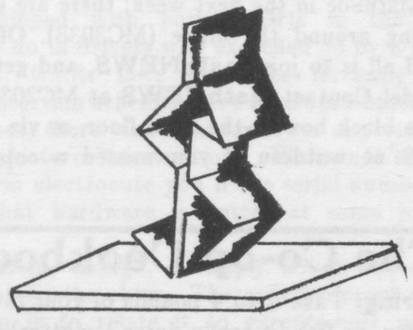


Pure Math

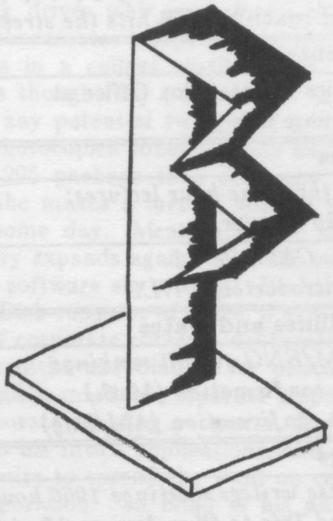


C & O

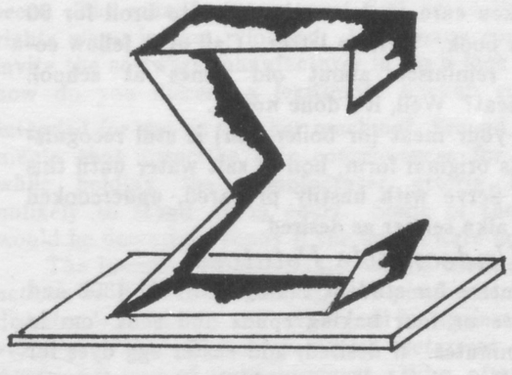
New Statues



C.A.



Applied Math



Statistics

Now that we've all got used to the CS outside the Math building, it's time that we gave the other departments some attention. In the same style we could have the mighty integral, the dollar sign, the K-3 graph, the beta and the sigma. Obviously, CS has occupied the strategic position, but there are other places for our new sculptures. The only problem is, we can't name them after what they look like. So what would we call them?

Sauron

Frosh Issue - Final Call!

Remember your days as a Frosh?? Well, now is the time to help the new Frosh that will be coming in September. All you have to do is write for the **mathNEWS** Frosh Issue. If you have any pertinent information, or any opinions about life here in Waterloo, submit them to **mathNEWS**. Just use the black box across the lounges on the third floor of MC, or mail to mathNEWS via Bun or watdcsu computers, or, if you're lucky, you might even find some **mathNEWS** staff in MC3035. This is indeed your chance to help the Frosh and get involved. Deadline for articles is 1 July 1984, so hurry!

Can't find this issue?

Don't despair if you can't find a copy of **mathNEWS** out in the halls of the great MC building. There are several ways of getting your hands on this popular (!!) publication. First, you can ask a friend for his/her copy. Or, you can drop into MathSoc in the next week; there are usually a few copies sitting around the office (MC3038). Of course, the best way of all is to join **mathNEWS**, and get your copies on the inside! Contact **mathNEWS** at MC3035, via MathSoc, via the black box on the third floor, or via computer on mathNEWS at watdcsu if you missed a copy of **mathNEWS**.

The Co-op Cookbook

Preparing: Take 2 to 4 pounds of your favorite frozen viand, poultry, or fish (it really doesn't matter) and throw it (not gently) in a broiler pan. Bathe with various oils (10W-40 will do nicely) and sprinkle with sundry seasonings. Wrap in tinfoil, tarpaper, sandpaper, wax paper, or foolscap. Place the meat in a preheated (Aha! Forgot, didn't you!!) oven at 275 degrees Fahrenheit. Agonize and fight off hunger for 45 minutes or so. Take the meat out and remember that you were supposed to use the broiler. Once that detail is taken care of, leave the meat to broil for 90 minutes. Read a book. Write a letter. Call up a fellow co-op student to reminisce about old times at school. Remember the meat? Well, it's done *now* ...

Serving: If your meat (or boiler pan) is still recognizably similar to its original form, boil in salt water until this is not possible. Serve with hastily prepared, undercooked vegetables. Add alka seltzer as desired.

Undecidable Potatoes

A favorite entree for student taking PMATH 430b and 432b. Take three or four baking spuds and soak 'em in vinegar for ten minutes. If desired, add easter egg dyes for a festive touch. Be undecided about whether to continue or throw the lot out and start over again. Next, boil the potatoes for 20 minutes, skins on. Realize (too late) that you were supposed to peel them. Again, waffle on whether to pitch them or not. Next, try baking them for 45 minutes at 350. Be undecided on whether they are done, whether they are raw in the middle, or whether you should throw them at the noisy children outside. Finally, after baking for another 30 minutes, prove using *reductio ad absurdum* that the potatoes are formally undecidable in your oven. Throw them out and settle for bread instead. Georg Mandrive

LookAhead

A glance at upcoming events

Math Events
July 6: *Road Trip to Sauble Beach* July 13: *Wine and Cheese* July 19: *End of term Pub*
Fed Flicks
Fed Flix are held on Fridays and Saturdays in Phys145 at 8 pm. Cost: $1 feds, $2 others.
June 29-30: *(another long weekend - use engie movies)* July 6-7: *Looking for Mr. Goodbar* July 13-14: *Beyond the Limit* July 20-21: *Flashdance*
Cinema Gratis
Starts in the CC at 9:30 pm. *Get there early and get a good seat!*
July 4: *Last Tango in Paris, A Streetcar Named Desire* July 11: *Mr. Mom* July 18: *Body Heat*
mathNEWS dates
July 7: **mathNEWS** *articles deadline* *July 9:* **mathNEWS** *porduction night, MC3038. Come one, come all and meet the mathies who bring you this publication. Enjoy free pizza, too!* *July 13: Next* **mathNEWS** *hits the streets!*
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.
July 16,18,20: *CMS, Part I* July 17,19: *Introductory UNIX*
Co-Op Deadlines and Dates
June 29: *AM/ENG submit rankings* July 4: *Job confirmation (Math)* July 10: *Job confirmation (AM/Eng)*
Other Things
Sundays: *Fass writers meetings 1900 hours, MC5045* July 8: *Road Trip to Blue Jays vs Mariners game Tickets ($11.50) available at Psych coffee shop (Look near PAS 3005)* July 2: **University Holiday (!!)**

Calculator Fun

Try this with your HP-15C: with the calculator off, press and hold **ON** press and hold $\div$, release **ON**, press and hold y^x, release $\div$, press and hold **ON**, release y^x, and finally release **ON**. Now try to turn your calculator on!

jsgray

Pitfalls of Corporate Copying

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The PC has been welcomed into the hearts of corporate America and you'd think that the big software vendors would be jumping for joy. Well, they are, but their dreams are being disturbed by visions of Amalgamated General Industries buying 2000 PC's, a copy of *SuperCalc*, and a truckload of blank disks.

How bad is corporate copying? Pretty bad. In terms of sheer size and impact on the profitability of software vendors, it dwarfs copying by hobbyists and home users. The crime—and it is a crime—takes two major forms.

Amoebic Diskentery

The first kind of offender is just lazy. Perhaps he even thinks he is saving his company a buck. It's convenient to just stroll down the hall to visit a colleague who has had a PC for a couple of months and ask for a copy of a program to use "while mine's on order." It's likely, though, that the new user will never place that order—not out of malice, but inertia. After all, who wants to go up against the stultifying bureaucracy of most corporations just to get something he already has? Many a user will consider himself lucky to have obtained a PC at all and will figure that it's best to quit while ahead.

A variation on the theme is the Amoebic Boot Disk. A disk begins life with perfectly legitimate copies of, say, *VisiCalc* and *MultiMate*. It bears the label "Jane's Disk, Drive A." Then Jane sees her friend using *dBase II* and says, "Gee, that's just what I could use for organizing my contact files." The hungry disk drives whir, and Jane's directory grows. One of Jane's subordinates brings in a copy of a program that his son uses in a college statistics lab. Some enterprising student has thoughtfully patched out the sign-on message to assuage any potential twinges of guilt. But the fourth-generation, photocopied manual bears an historical resemblance to a $295 package that Jane saw at the local computer store. She makes a mental note to ask her boss for a legit copy some day. Meanwhile, the monster feeds and Jane's directory expands again. Will she ever buy legitimate copies of the software she's using? Probably not until the Amoebic Boot Disk runs out of space, if ever.

The second breed of corporate copier is deliberate in his actions. He buys blank disks and binders for photocopied manuals and hides behind a mask of corporate respectability. He often runs elaborate training programs, has documentation customized to his firm's applications, and is possessed with a zealot's desire to spread the word on computers throughout the corporation. So blind is his ambition that he can't see that what he's doing is wrong.

Most corporate executives and lawyers are utterly unaware that either type of copying is going on, although it may be happening right outside their office doors.

End of the Line

Many vendors believe that it's time to end their largesse in providing free or nearly free software. They are now attacking on two fronts: copy protection and litigation.

For purposes of discussion, copy protection is any scheme that prevents copying or limits the number of copies that can be made of a piece of software. Of the two approaches, copy protection has by far the knottier problems. First, is there such a thing as true copy protection, or does it only serve to keep honest people honest? Second, what about the functionality of the machine? Many copy-protected programs cannot be used with a hard disk or over a network, and some have severely limited capability for backup.

The copy protection argument could be viewed as a battle between Apple mentality and CP/M mentality. The first says to copy-protect anything and everything; use every available trick to drive the potential copier up the wall. The second says relax; let sales volume and higher prices cover the inevitable losses to piracy.

The PC clearly has a stronger allegiance to the CP/M world. After all, it evolved from 8-bit Intel technology and uses an operating system that started as an unabashed imitation of CP/M. The open architecture of the PC has been a prime factor in its success, and the ease of using software has been an immeasurable help. One of the things that makes the PC a pleasure to use is the way you can build your own system disks with the mix of programs that you want and avoid constantly changing disks and rebooting the system. MS-DOS's flexible, resident nature like that of CP/M, is worlds away from the Apple mentality. Unfortunately, copy-protected software eliminates some or all of that flexibility.

We at *PC* are concerned about these approaches and continue to encourage manufacturers not to sacrifice functionality for protection—assuming that such a thing is possible. We wonder if software-based copy protection is any more effective than the 55-mph signs on our highways. If cars were equipped with poison darts in the steering columns, set to do in drivers who exceeded 55 by a predetermined amount, traffic laws would be fervently obeyed. Similarly, if protection schemes were hardware-based instead of software-based, there would be far fewer opportunities to violate a manufacturer's restrictions. We're not suggesting that your system electrocute you if the serial numbers don't match, only that hardware is better at some jobs than software.

Such a system, though, is simply not in the cards, or more appropriately, the chips. The *only* foolproof means of copy protection is to relate it to execute-only microcode within the CPU chip. While such chips exist and are popular in many control and game applications, they have yet to be designed into any of the popular general-purpose microprocessor families. When Intel, Motorola and Zilog (or their customers) decide it is time for serious copy protection, we'll get it.

Legal Recourse

The issues in litigation are not as simple as they might seem. The manufacturers must first prove that their copyrights were, in fact, violated. How many corporations will invite the software manufacturer in for a look around? And how do you discern a legitimate backup copy from one intended for use on another machine? Second, license agreements that prescribe dire consequences for the end user while holding the manufacturer utterly blameless are unlikely to stand up in court. Some of these documents would be downright funny if the intent were not so earnest.

The lawsuits are inevitable. While the majority of legal actions to date have been against pirates at the reseller or distributor level, the next wave will be against the corporate violator. The biggest potential deterrent to corporate America is fear of embarrassment. Who, after all, wants to be hauled into court because he has repeatedly ripped off a $60 spelling checker? Smart CEOs and corporate attorneys will settle quickly and quietly. You can bet that they'll come down hard on the perpetrators, too.

For every smart CEO, though, there are dozens more who will never make the pages of *Fortune* or *Inc.* There will be court battles and countersuits. Some will be easily surmounted and others will drag on in court. But the manufacturers are determined to have their day. It won't be cheap, and it won't be dull. Stay tuned—and start looking for the purchase orders. Bill Machrone, *PC* Magazine

Knowing a Computer Can Be Fastest Way To a Woman's Heart

The New Big Men on Campus
Find Technical Wizardry
Is Quicker Than Liquor

From The Wall Street Journal, *18 May 1984*

BOSTON—As a gangly high-school student, Michael Sattler had just five dates in four years. Then he discovered computers. Now girls have discovered him.

It is exam time at Boston University, and glassy-eyed students work all night in a stuffy basement finishing up their computer projects. But in one corner, Mr. Sattler, now a 20-year-old junior, is having the time of his life.

He helps one young woman dressed in shorts and a T-shirt figure out a computer program. He flirts electronically with a second woman hundreds of miles away. A third female, who has shrugged off the attentions of other men in the computer center, solicits Mr. Sattler's opinion of her resume. "It's idol worship," Mr. Sattler allows.

It is also a sign of the times. Formerly disdained computer nerds are now big men on campus. Their mastery of inscrutable machines seems to be winning them the hearts of hitherto unapproachable young ladies. "There are even a few recorded instances of girls going after hackers instead of football players," says Mr. Sattler. To turn the odds in his favour, he says, he spends 65 hours a week in the computer room and not just doing his homework.

Consider, too, the case of Sylvain Morgaine, a geek (another perjorative term for computer aficionados) who tutors at the Boston University computer center. One coed kisses him twice when he helps her with her computer program. Another asks him out for ice cream.

In Desperate Need

David Ryan, a 24-year-old junior, used to be a physics major, but he says he got lonely working on particle accelerators. Now he poses as a computer-center employee at Boston's Northeastern University and waits for women with computer problems to flash him what he calls "The Look."

The Look, he explains, is "like they just finished their last glass of water and they have to walk across a desert." When he sees it, which happens several times a week, he pulls up a chair and offers to help. It is a foolproof way to meet women, Mr. Ryan says. "They're very grateful." Sometimes they even offer to buy him a pizza.

Mr. Morgaine has a French accent and a ready smile. Mr. Ryan is athletic and outgoing. For men who are less adept socially than they are, the computer come-on can be even more impotant. Harvard sophomore Martin Picard was too tongue-tied to approach the girl of his dreams, so he concocted a program that made his dormitory room telephone ring whenever she used the campus computer.

But high-tech love can founder for non-tech reasons. Mr. Picard's inamorata dropped him after two months. "She thought I was very immature," concedes the mop-haired Mr. Picard. And Mr. McLachlan's love went unrequited. His tutee decided to pay him $5 an hour and thus keep the relationship all business. "She got an A in the course," he consoles himself.

Nerdish Nastiness

Some college women complain that nerds sometimes get nasty and use their computer wizardry to harass. A Boston University engineering student says she rarely goes to the computer center except in the company of her boyfriend because of the nerd who once programmed "I love you" into a report she composed on the computer and handed in for a grade. (The professor she submitted the paper to never commented on it.) "Some of the guys who hang out here are pretty perverted," she says.

Heavy breathing by computer is another form of sexual harassment, some students complain. Christina Hills, a senior, says a man sent her obscene messages, which she won't repeat, on Boston University's computer. He did so until she confronted him in the terminal room and loudly invited him to "see me at the window," which is the local equivalent of "meet me outside."

Coeds at Framingham State College near Boston complain of the computer cad who snuggles up behind them and envelops them in his arms as he taps out programs on their keyboards. What's worse, they can't figure out the program when he is finished.

But sophomore Ed Mongeau, a Framingham State gweep (which is something else they call computer mavens), denies that electronic Lotharios such as himself harass women. "I help gentlemen, too," he protests. Still, he acknowledges that one woman so objected to the notes that he was sending her via computer that she refesed after one date to go out with him again.

Marie des Jardins, 19, is herself an avowed nerd. She helps guys at Harvard's computer center. That is a part of her part-time job there. She has also done some electronic flirting of her own by leaving messages for men whom she knows only by their computer passwords. She likes the nerds in the computer room, in part because "Here you can do what you feel like and it's fine," she says.

One thing she felt like doing was dating a young computer center employee who took six months to work up the nerve to invite her out. They got along so well, as it turned out, that a few months later she proposed marriage and he, bashfully, accepted.

Boston University's Miss Hills, after facing down the computer creep who was bothering her, recently smiled upon another computer suitor. His code name is Silence; hers is Ruby.

"Ah, what a gem," he once tapped into his machine and transferred to hers. Silence, whos proper name is Mark Forester, and Ruby (Miss Hills) now send each other computer love notes each morning. "It's the first thing we see every day," she says.

Bob Davis

Strange FedBellows

Fed Hall on the Horizon

Waterloo (mN) -- Traffic on ring road west is once again moving as the services have been extended from the university to the new Fed Hall rising to begin to resemble the drawings on that little flyer everybody got in the fall and winter terms. By all reports moving nicely ahead of schedule, there is anticipation that it may be ready for use not so late as November, but possibly so early as September. Finalizing a long effort on the part of many, not to mention fed President Thom Allison and former President Wim Simonis.

Stats Grads win Awards

UW News Bureau - Two recent PhD graduates of our very own beloved department of Stats (as everyone knows it) have won Pierre Robillard awards, which are given annually for the top PhD theses defended at a Canadian university in a field covered by the Canadian Journal of Statistics. These awrds are presented by the Statistical Society of Canada.

One of the 1982 winners, Anthony F. Desmond, is now an assistant professor at Guelph. His thesis was on "Local Maxima of Stationary Stochastic Processes and Stochastic Modelling of Fatigue." Thomas J. DiCiccio received one of the two awards for 1983 for "Higher Order Compaarisons of Asymptotic Methods for Conditional and Unconditional Interval Estimation." He is now an assistant professor at McMaster. Both were students of Professor Mary Thompson.

In addition, the winner of the other 1983 Robillard award, Christian Genest of UBC, is scheduled to join our Statistics and Actuarial Science dpartment effective this Sunday as an assistant professor. **mathNEWS** extends its congratulations and welcome.

ElseWhen

mathNEWS 10 years ago

SMOKING POLICY—Policy in the Math building tends to dictate no smoking in the terminal rooms. This is done because when particles from smoke get into machines, they tend to turn the lubricants into an iccy compound that isn't good for the bearings they're lubricating. Every now and again, you see "No Smoking" signs appear in all the terminal rooms (usually just to disappear a few weeks later). However, just in case you want to smoke in a no smoking area, they've been thoughtful enough to provide ashtrays...

{[(< brackets >)]}

Being in Math, and especially in CS, you tend to see all kinds of brackets/braces/parentheses used, in many diverse applications. This article will attempt to sort the left ones from the right ones, and to add to the general confusion.

<Pointy brackets> are called, by those in less glamorous fields such as Pure Math, less-than and greater-than signs. However, we all know that they really are brackets. Their main uses are (1) in PWAP assignments for CS240 and the BNF notation, (2) in signifying single keys to be hit to control a program, like *<ctrl><C>*. The origin of the latter usage is veiled in obscurity, as none of the keyboards I've recently come across had keys shaped like a <>. It would make more sense to use...

[Square brackets] are somewhat more popular than the pointy ones. It is fashionable in advanced calculus to use square brackets for enclosing regular, smoothly rounded brackets (see next paragraph) and other expressions. This makes for greater variety, especially when used with squiggly brackets (we'll get to those, too.) IBM uses square brackets to denote things that are optional, and if you see square brackets in an IBM manual **don't** try to type them in — the Itty Bity Machines won't like them! This is especially a hassle if you are trying to write a decent program using something like C or PASCAL, which use square brackets for array indexing.

(Round brackets) are called parentheses by Artsie types. I guess this is because *Webster's* defines it as an upright curve separating a parenthetical comment. However, it is obvious that the term *round bracket* is preferable; it not only defines what its function is, but also tells you what it looks like. (It's also easier to pronounce.) Round brackets are extremely useful; nobody will complain if you enclose the entire equation for Question of Life, the Universe and Everything in only round brackets, as long as you make sure that the d(size)/d(level) is large, i.e. your outermost round brackets should be mega-size. Round brackets are, in most programming languages, the only brackets that may be used to indicate priority of operations.

{Squiggly Brackets} are **not** braces; according to the dictionary, braces connect things, and squiggly brackets don't. So there! They are professional-looking as the outermost brackets in a big, fancy equation — at least if you've had enough practise and can draw the squiggles with a graceful sweep of curves. This is often practiced as an area of postgraduate study. Squiggly braces are also used by some silly languages like Pascal for comments (naturally you can't type in squiggly brackets on IBM machines...).

Tom Watts

360 ARRIVES—For those of you who may have been fooled by its excellent camouflage, a new (or should I say, used) /360 has arrived downstairs (blends right in with the walls of the pit, doesn't it?). Presumably this is the souped-up '44 that we should be expecting...This, of course, probably means that the changeover of APL is imminent, along with resulting system problems...

Feedbag

VAXen, ID numbers & engineers

Dear **mathNEWS**:

Not all 'ordinary' id numbers have 0 as third digit - I am 77141593. (Try dividing by 10^6 and subtracting 74 - not bad for a mathie!).

Social Insurance Numbers ref: RevCan's book on machine computation of payroll deductions. Their example:

SIN is 123456782 - the last two is the check digit.
Take even numbered positions, form a number and double it.
2 4 6 8 * 2 = 4936
Cross add these digits 4 + 9 + 3 + 6 = 22
Cross add other digits 1 + 3 + 5 + 7 = 16
Add 22 + 16 = 38
Units position is 8
Subtract from 10 and get 2 - the check digit.

John M. Sellens
watrose!jmsellens

Dear **mathNEWS**:

I don't think you are right on student numbers as I know several students with 801... ID numbers who applied through normal channels.

Barb Lundhild

Dear **mathNEWS**:

To the capitalistic and imperialistic Editor, who has failed to defend the basic rights of VAXEN:

I was appalled by the capitalistic exploitation of the oppressed VAX which appeared on the cover of your last issue. Most revolting was the blatant exposure of the poor creature's I/O device, in the traditional decadent Western manner. There is a movement to fight against this immorality! Let us all struggle to free VAXEN from the capitalistic and imperialistic warmongering exploitation of VAXEN by men, which leads to the detriment of all VAXENkind (11/725, 11/730, 11/780, 11/782, 11/785). Long live Decbania!

Adamantly,
Marl Karx
President, VAXEN Liberation Movement

Dear **mathNEWS**:

As we all can attest, the pressures of attending the top mathematics and engineering institution in Canada are fairly heavy at times. As such, ways of letting off that tension are very important. I think the Engineers' small pranks are in no way out of line as a "pressure valve" activity.

Admittedly, disrupting other people with such activities is wrong, but pursuits such as the alteration of the Fed Hole sign do not realistically cause any hardship. The engineers are often stereotyped as being unimaginative about most things, yet the POETS pub sign indicates creativity and no little skill, and says much for their ability to plan, organize and execute an activity.

The engineering faculty has, undoubtedly, the best "spirit" on campus. Parades (outside), signs, charity fundraising and the like all demonstrate this. To focus on so-called "vandalism" is to promote mindless devotion to and acceptance of authority.

Surely we, as Mathies, could surpass such engineer spirit while at the same time channeling our activities into positive action. So, instead of raining on their parade, let us consider our own. With two mighty organizations of the best young minds in Canada, life at Waterloo would be stimulating both academically and socially. U. of T. would quake in its boots.

Sauron

Dear **mathNEWS**:

(re: vandalism article).

These antics are traditional in University campuses in the western world and have been for quite some time. Even security takes these **harmless** pranks in the spirit they are intended. (See Gazette interview with a security officer some months back.)

Also, I believe the p**5 points are awarded to the engineering classes according to the number and level of participation of students who participate in such Engineering events as the Big Sisters Bus Push.

On a hazy Monday morning it's nice to see something that makes you smile (e.g. the jack-o-lantern painted on the observatory a few years ago.) But, maybe that was before your time.

Jane Roberts
(on work term in Toronto)

P.S. You're only young once, why spend it trying to be old?

{ *When I wrote the original article* **Sponsored Disobedience**, *I presented it as merely food for thought. My expectation was that I would be odd man out; however I soon found many agreeing with my views. The target of the article was not in concern to EngSoc benignly supporting vandalism, but that, although EngSoc must be commended for its help of a variety of charities as well as its work to develop enthusiasm for the University, it also undertakes a good number of negative activities.*

I think a good number of us read in horror as the President of EngSoc B in the fall apologized for the **Lady Godiva** *incident by justifying it on the grounds that EngSoc does a lot for the University. Does doing good at some times mean that one is justified in doing wrong when one feels like doing so? I say not; that is a ludicrous suggestion and against all bases of morality. I called for these energies to be put to positive goals, such as other charity work or involvement with other forms of campus activities, as is common in math. It would be good that some University in Canada make some sort of honest effort to break the image of the obnoxious Engineer, and I see no better place than the country's best school for Engineering, Waterloo -- Scooter!*}

Watts Line

Are the Chevrics Returning?

Many of you probably don't know that the *Chevron* was the official campus newspaper until the mid-1970's when people associated with the Anti-Imperialist Alliance (AIA) took over the paper. Around the time of this take-over, students became increasingly dissatisfied with the reporting and bias of the paper. Students organized several fee refund campaigns in order to rid *Chevron* of the AIA, and eventually the Feds and engineers established the *Imprint*, and *Chevron* lost its position as the official campus paper.

There has recently been some concern, especially in the Math and Engineering faculties about whether *Imprint* is drifting in the same direction. The current editor, George Elliot Clarke, known for his controversial "Speeches" column, has not gained the confidence of many of *Imprint*'s regular staff. Former Business Manager Sylvia Hannigan and former Production Manager John Bast have left the staff, and several other staff members refuse to work with Mr.Clarke. The paper has shrunk to 12 pages from its usual summer size of 16 pages, and technical quality appears to have suffered from the departure of experienced staff.

Now, it appears that the reporting is also becoming more biased. There have been less articles relating to on-campus events and more to events not directly connected with the students. For example, last issue's sports coverage was limited to three articles: one listing the (former) UW people participating in the L.A. Olympics, a short article on UW squash team (by the famed Barney Lawrence, Q.C.) and 'sports comment', by the Sports Editor (!), Sandy Townsend.

The latter lamented that professional sports was not as much fun as Co-Ed Slow Pitch League, and was pure entertainment similar to the performances of Boy George. No allowance was made that pro sports are also inherently competitive, and in addition to the entertainment aspect, winning takes priority over having fun. Most athletes also consider winning an end in itself, and do not aim high just to earn higher bonuses, a point which seems to be implied by the article. However, Ms. Townsend prefers to take a general pot-shot at professional sports, citing sponsors such as Labatt's, who apparently just want you to come to the ballpark so that you'd buy some of their brews.

This term, *Imprint* has also featured a series of articles on unemployment, written by Anna Lehn. Besides not being a student-specific issue, the articles clearly have a biased tone. The latest, titled "Monetarism causes joblessness", was almost entirely excerpted from a conference presentation by John Dillon of the GATT-FLY (which is funded by the Canadian Churches for Economic Justice), without checking on any of the figures presented by him. It might be interesting to note that Mr. Clarke recently threatened to sue **mathNEWS** over some information published here. Mr. Clarke felt it irresponsible to print statements (obtained from an *Imprint* staffer) without checking their validity prior to running them. Possibly Mr. Clarke should follow his own advice... Some quotes from the article mentioned above:

- *in 1961, for every $12 200 the industry spent, one job was created. In 1980 ... $27 000 was spent to create one job.* Despite using constant dollars, this totally ignores that the real wages of an average worker have shot way up in the last 20 years, and one simply can't hire anybody for a real job for $12 200 any more. She further claims that companies are redirecting their profits to buy new technology instead of creating new jobs. Who creates this new technology, though? Are there not more jobs in high-tech industries, sales and maintenance than before high-tech flooded the markets and the industry?
- *Since 1975, money has increasingly left Canada through capital flight. 900 000 jobs have been lost in this manner.* I wish I knew where the hat is that he pulled this number from. Mr. Dillon implies that capital flight occurs through foreign investment, as companies repatriate their profits, but nowhere does he consider the large number of jobs created by the initial investment. This investment, which would likely not have been made by a canadian company, by far offsets the outflow of capital represented by the repatriated profits, which usually only total around 10% of gross profits (alas, I do not recall where I saw this figure). According to Federal Government figures, foreign investment has created millions of jobs since the early seventies, a fact not readily apparent since the work force has been growing faster than the number of jobs since the 1960's.
- Incidentally, Mr. Dillon also claims that capital flight occurs when Canadians invest abroad. However, the feasibility of capital drainage occurring *both* through foreign investment here *and* our investment abroad escapes me completely. This appears to be a contradiction, but perhaps Mr. Dillon's GATT-FLY uses an unorthodox style of logic, where conventional truth values do not hold...
- According to the honoured Mr. Dillon, wage & price restraints have slowed consumer spending, and thus (because this is a 'capitalist' economy) reduced production and investment, creating a vicious circle. However, he does not realize that a slower increase does *not* imply a decrease in production, but rather it implies a *slower* increase in production! Further, the consumer spending is affected much more by the expectations of the consumers than it is by wage restraints. However, Messrs. Dillon and Clarke, Ms. Lehn and Imprint have chosen to not consider these basic points covered in courses such as Econ 102, and instead to remain blissful in their ignorance.

I feel (*note: this is not necessarily the opinion of* **mathNEWS** *-ed.*) that *Imprint* behaves irresponsibly in printing biased articles such as these, without at least a cursory check on the factual basis. The most glaring errors would be obvious with an ECON 102 backgroud or less, and anybody who read the article with some thought would be able to catch others. Shame on you!

Tom Watts

platter spatter

Bruce Cockburn: Stealing Fire

One of Canada's own true musical virtuosos returns again with a fine collection of songs. The musical medicine slides down quite easily, without any need for aural sugar on the spoon.

Personally I like to divide Bruce's career into two phases. His early phase, largely acoustic, was punctuated by strong Christian messages in the lyrics. The later phase, and the one we are now in, is electric, and the songs are mostly about "real-life" situations. I have also noticed that in the later phase, the lyrics have moved from the Christian framework to an intensely political one, fueled by the musician's celebrated travels to sensitive areas of the world. With this switch, the quality of the music, at least to my ears, has gone up considerably.

There are no really bad songs on this record, like the frightful "Hoop Dancer" which marred his otherwise excellent last release *The Trouble with Normal*, and the sound quality is exceptional. Cockburn fans (and who isn't one?) will love this one too. A solid effort.

Slash Sinatra

R.E.M.: Reckoning

A fine second release from one of the very few decent U.S. bands to surface in the last ten years or so. Anyone not familiar with this group could imagine them as a cross between **Echo and the Bunnymen** and the **Oak Ridge Boys**. "What?" you say. Incongruous as that may sound, the formula works.

The lyrics may not be vital, or the production sterling, but this toe-tapping brand of Americana from Athens, Georgia (no kidding!) is infectious nonetheless. It's unfortunate that this band has been overlooked just because they're American and not too flashy. But the record is domestic on the I.R.S. label, and you'll probably be one up on your friends if you but it. They may even find their toes tapping, too, and have to ask you what it is. Recommended.

Slash Sinatra

Persnulls (Impersonatals)

Wanted: One six pack of blasting caps
--Society for Attractive Sculptures

Introducing the K and A Stud Service. Handy on those evenings when you discover you don't need to wash your hair after you've told all of the guys that that is just what you were doing. Rates reasonable.

Merry Christmas for anyone who was already hibernating when we last wished it.

Toronto in K-W

Last Friday saw the rock group Toronto (now Holly Woods and Toronto) play Center Stage at the Coronet to a near capacity crowd. The group has been making some personnel changes, resulting in a slight change in musical focus. As their name implies, the show is now centered around lead singer Holly Woods.

The evening started off at 9:30 with a warmup band that was (deservingly) never identified playing the likes of Ozzy Osbourne, Van Halen, and Led Zeppelin. The only item of interest in their 45 minute show was watching the lead singer play air guitar during the solos.

The real show finally started at quarter after 11, a whole hour after the previous group had left. However, when they did arrive, they presented a fairly tight and enjoyable show. The group has a lot of material that gets both AM and FM airplay. They also presented a few cuts off their new album, such as Cats and Dogs, and the title song Assault and Flattery. With the departure of guitarists Brian Allen and Sheron Alton, the songwriting chores have gone to Holly and keyboardist Scott Kreyer, and they produce equally good results.

I do not make it a habit of going to clubs to watch bands (therefore I am not an authority on the subject), but I do have a bit of a gripe. Whether or not it customary to do so, I did not think much of an 11:15 start. For one thing, with a 1 o'clock bar closing time, the group could only perform for an hour and 15 minutes, plus an encore. Second, with the ticket insisting that you be there by nine (I was there at eight) it makes for a long wait. All in all, even though it was a good show, I do wonder if it was worth it.

grmcfarlane

Come in Houston, this is MastHead. We had many divers writers for this issue, including Dwarf(takith, elsewhen), maggie brunton(gridwork), Sauron(cover, quiz song), TAIvey(questions?), watts(chevrics, SAC, brackets), Georg(cookbook), jsgray(Calc Fun), slash(records), grmcfarlane(T.O.), Marcel Kahnt(entertainment), and Scooter! (Fedbellows, stats grads), and GSBingle (riddle?). Santa's helpers included wjjordan(editing), Genia Krubnik(perseverance), Watts(cover, typing), Scooter! (editing, layout, gridwork), BLScearce (layout, proofs), Chris Seyffert(pizza, nuisance), djcl(gridwork), and me, Mr. Dressup. Special thanks go to UNIX, Captain Combat, Gustav Mahler(1860-1911), and the (gasp!) MathSoc typewriter. With built in ~~¢ø~~ correction feature.

- TAIvey

The Theory Jack Built

This is the Theory Jack built.

This is the Flaw
That lay in the Theory Jack built.

This is the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Summary
Based on the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Constant K
That saved the Summary
Based on the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Erudite Verbal Haze
Cloaking Constant K
That saved the Summary
Based on the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Turn of a Plausible Phrase
That thickened the Erudite Verbal Haze
Cloaking Constant K
That saved the Summary
Based on the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Chaotic Confusion and Bluff
That hung on the Turn of a Plausible Phrase
That thickened the Erudite Verbal Haze
Cloaking Constant K
That saved the Summary
Based on the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Cybernetics and Stuff
That covered the Chaotic Confusion and Bluff
That hung on the Turn of a Plausible Phrase
That thickened the Erudite Verbal Haze
Cloaking Constant K
That saved the Summary
Based on the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Button to Start the Machine
To make with the Cybernetics and Stuff
To cover Chaotic Confusion and Bluff
That hung on the Turn of a Plausible Phrase
That thickened the Erudite Verbal Haze
Cloaking Constant K
That saved the Summary
Based on the Mummery
Hiding the Flaw
That lay in the Theory Jack built.

This is the Space Child with Brow Serene
Who pushed the Button to Start the Machine
That made with the Cybernetics and Stuff
Without Confusion, exposing the Bluff
That hung on the Turn of a Plausible Phrase
And, shredding the Erudite Verbal Haze
Cloaking Constant K
Wrecked the Summary
Based on the Mummery
Hiding the Flaw
And Demolished the Theory Jack built.

Anon.

You've got Another Quiz Comin'

One test, I'm gonna mess it up,
I'm taking CS, they won't let me have enough
Slouch down, knees bent and shoulders bowed
I'm safe enough as long as I'm in a crowd.

(*chorus*)

If you think I'll sit around as my mark goes 'bye
You're thinking like a fool 'cause it's a case of learn or fry
Out there is a BMath waitin' to be had
If you think I'll let it go you're mad
I've got another quiz comin'

That's right, here's where the crammin' ends
I'm off to the arcade, there'll be some quarters spent
Play hard I'm making all the shots
I got a free game with my skill on the slots

If you think I'll sit around while they chip away my brain
I guess you got it right 'cause I'm payin' for this pain
They tell me there's a fortune waitin' to be had
If you think I'll let it go you're mad
I've got another quiz comin'

Though the midterms you just wrote will cause
their share of sorrow
Answer now is don't give up, aim for the exam tomorrow

Oh so close no time to take a rest yeah
Act smart, no admissions to second best
20 pens, 2 HPs for security
As long as I pass I'm goin' for infinity yeah
(repeat chorus)

(as always, apologies to Judas Priest are completely uncalled for).

Entertainment

by Marcel Kahnt

This issue We continue the summer movie extravaganza reviews with two hit comedies, **Ghostbusters**, and **Top Secret**. In addition is everyone's favorite free movie service that you can find in the Campus Centre, and Mr. Thom's Fed Flicks. To end things off, I have a few things I wish to say about the entertainment industry in Canada.

GhostBusters

Okay, last issue I heartily recommended this without having a chance to explain why. Here's why.

It stars Dan Ackroyd, Rick Moranis, Bill Murray, Harold Ramis, and Signourey Weaver; which constitutes four of the best minds in comedy and one of the best actresses. It reunites Murray and Ramis from **Stripes** (which rates 8.0 in my books for a movie). It reunites Ackroyd and Murray from Saturday Night Live. It reunites Ackroyd, Moranis, and Ramis from Second City. When you are falling back on that sort of experience, you know that it is going to be good. I only fear that the movie did not sufficiently capitalize on the women involved, and as a result lost the perfection enjoyed by **Tootsie** (8.2) in that area. A quick placing says that it is better than **Stripes**, with 8.5 technical, 8.2 acting, and 8.1 story. This even slightly beats **Tootsie** to make this the best comedy I have ever seen at 8.25 (**Terms of Endearment** is more of a drama, and then it is only 8.4).

Top Secret

This is from the makers of the original **Airplane** (not the Wright brothers). Unlike **Airplane II**, this movie had some new jokes, as it parodied not the airline movie series but instead any spy/East vs. West/war/rock and roll/boy meets girl style movie. As you can see, it certainly was not very selective. I don't think I would have missed it, but there just seemed to be something missing with it. It still relied heavily on sight gags and plays on words, but it wasn't quite as fast paced as the **Airplane** movies. One good joke that wouldn't have arisen in **Airplane** was when Hilary (the heroine) finds that the youth with whom she had been marooned on a Pacific Island (ie. **Blue Lagoon**) until one day he swam away is now the leader of the underground resistance group in East Germany (all of whose members are French) and she finds herself saying to the western rock star who has befriended her and protected her to get to this point in the movie that *<insert plot of movie to this point spoken in one breath >* was still important even if it did sound like they were living out a bad movie. At that point they both looked to the camera. As you can see, the movie is even more ludicrous than you would expect. There was nothing as good as the door with William Shatner in **Airplane II**, but things were not that far behind the **Airplanes**. Technical earns 8, acting earns 8, but story gets only 5.5, for a composite of 7.1. It is not bad, and the low score for story lies more in the fact that the story is far from importance in this movie. Don't ignore it, as it is certainly worth the four dollars to see it.

Fed Flicks

We haven't heard what this weekends Engy movies will be, so I can't really comment on them. However, the following weekend is **Looking for Mr. Goodbar**, with Jill Clayburgh (as best I (with the help of others) can recall). I must warn you that the ending is certainly not for the squeemish at all. It does give an understanding from the point of view of a woman why the singles route is so dangerous of an environment for women, and why many feel they are viewed as little more than sexual organs that are available. It has a deep message for men, if not so much for women. See it and learn what the other side is like.

Cinema Gratis

Next Wednesday is a Marlon Brando double feature night. I hope the order here is actually reversed, as the first one here got an X rating. This was the feature from the seventies, **Last Tango in Paris**. *C* channel showed it a few times when it was on the air, although it was too mild in some ways for **SuperChannel** and **First Choice Canadian**. It is now considered to be somewhat of a more artistic movie. Sharing the bill is one of Brando's first movies, **A Streetcar Named Desire**. Little needs to be said about that one as it is a classic in its own right.

The following week is a very recent feature for CG, **Mr. Mom**, starring Micheal Keaton and Terri Garr. Little needs to be said as it was a box office smash and we are getting a tremendous treat to see something this good for free so soon after it being in the theatres. But then Fed Flicks had both **Ghandi** and **Tootsie** in the fall, only a year out of their theatre runs.

Comment

Before finishing this issue's column, I would like to comment on a new development in Pay-TV, the proposed "merger" of Allard Communications or Allarcom (better known as **SuperChannel**) and **First Choice Canadian** (largely owned by Astral Bellevue Pathe, one of Canada's largest film distributors). The proposal would create **First Choice** as a movie and general entertainment service in Ontario, Quebec, and the Atlantic provinces, while **SuperChannel** would get the Praries, the territories, and BC. Also, they would jointly own a family-oriented channel parallelling the American Disney Channel service that would operate from coast to coast. They aim not to interfere with the normal competitive processes of the marketplace; rather they mean to try to keep themselves from destroying one another with the vehemence of their head-to-head battling.

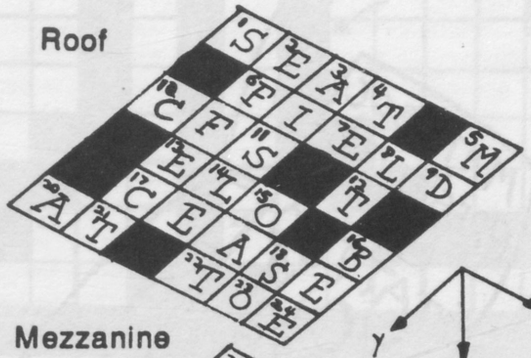
I don't know if I agree outright with the proposal. It has many good points to it, but it does not seem to realize one major point about what was happening with Pay-TV. **SuperChannel**, although smaller than **First Choice Canadian**, was much more successful than the official national service when the comparison is restricted to simply those markets where both services are available. **First Choice** has already been bailed out once, by the Toronto Bronfmans (the Brascan owners, not the Montreal Bronfmans who own Seagrams and the Expos). Rumours have been floating about that it may have needed yet another bail-out before long to keep it competitive. **SuperChannel**, however, has suprised many as it has moved to being a defacto national service from an originally regional operation found in only Ontario and Alberta. It quickly found itself holding its subscribers better than **First Choice**. It found

continued on page 11

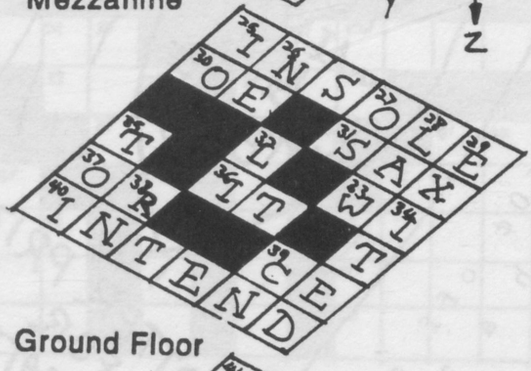
Raiders of the Lost GridComments

We had many early responses to last week's GridWord, even though we thought that the new dimension would pose a certain challenge. Without further adue, the winner is Brad Sokol. Honourable mentions go to Stuart L. Hodgins. Sorry about the small type used; we didn't know how many square metres of space the clues would take up, so we erred on the side of caution. Also, a few readers noticed that we skipped number 19 on the grid. It seems, by the response, that the readers had no major problem with that, however.

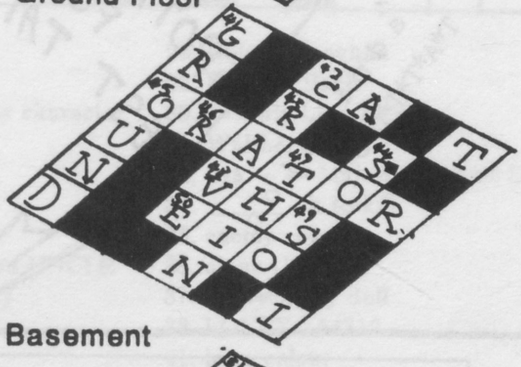
Roof



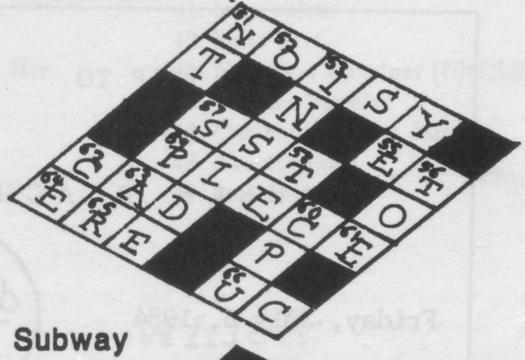
Mezzanine



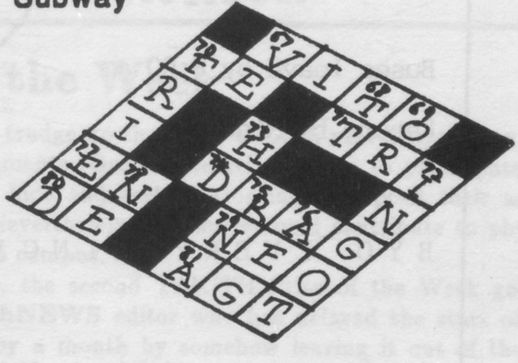
Ground Floor



Basement



Subway



In the SAC

"What an amazingly nifty title," you might say, "but what is SAC?" Well, SAC is the Student Advisory Council (tells you a whole lot, doesn't it?), which advises the Department of Co-ordination and Placement (Aha!) on matters regarding the co-op system. The council includes up to four student representatives from each faculty, and one representative from the Department. This term, the Math reps are Tom Haapanen (3A), W. Jim Jordan (3A), Sean Romenco (2B) and Jenny Tscharke (3A), all of whom (except for Sean) will carry over to the next on-campus term.

The council discusses items ranging from the location of the interview notice boards to the two-term job commitment, and branches off to things such as student taxation problems. Currently on the agenda are a discussion on the timing of the co-ordinator visits, student questionnaires and this term's job/student situation. Any problems with co-op can be brought to the attention of the SAC, so that they'll at least become acknowledged, and hopefully even be corrected. Naturally, since the council can only advise, you should not expect immediate action. You can either get hold of one of the members (their pictures are posted in Needless Hall right by the receptionist's desk) around the Math building if you're lucky, or by attending one of the meetings, which are held every other Tuesday in NH1029, the next one being on July 10. You can also drop a note in MathSoc (MC3038), from where it will get passed on to one of the members. Remember, *you* might be the difference in fixing that problem that's been bothering you since 1A!

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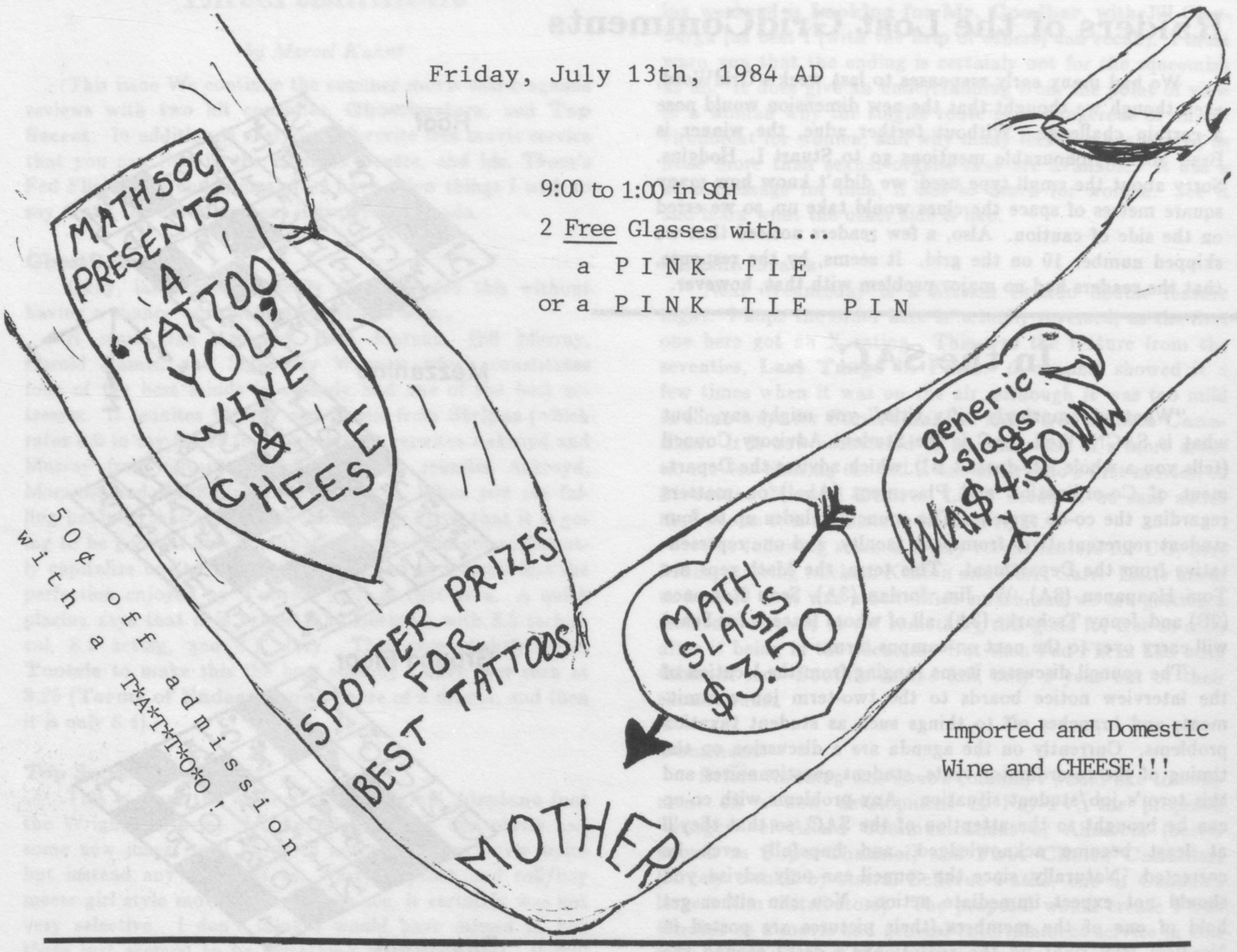
itself almost certain that it would survive and flourish, even if each of its competitors were to go under.

That was just the problem. So far, only **SuperChannel** has not needed a bail-out. If **First Choice** didn't survive, **SuperChannel** would find itself with a national monopoly. But the biggest worry was that it would be a severe embarrassment to the CRTC if the national licensee for Pay-TV folded, even if **SuperChannel** survived. This new proposal should ensure that, even if, at some future point, **First Choice** collapses, the national family channel will be carried on by **SuperChannel**. It is time that everyone should admit that **SuperChannel** is the winner after the first year of Pay-TV, and will likely continue for the foreseeable future to hold that position.



ROAD TRIP TO

SAUBLE BEACH

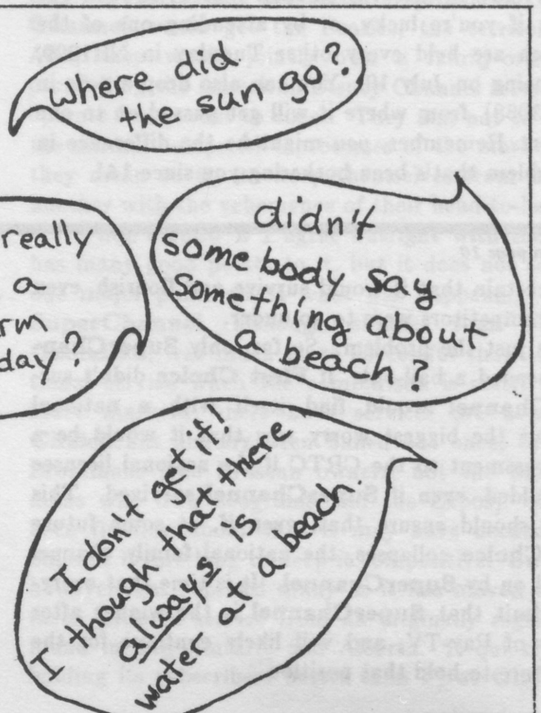
Friday, July 6, 1984

Buses leave by 8:00 am

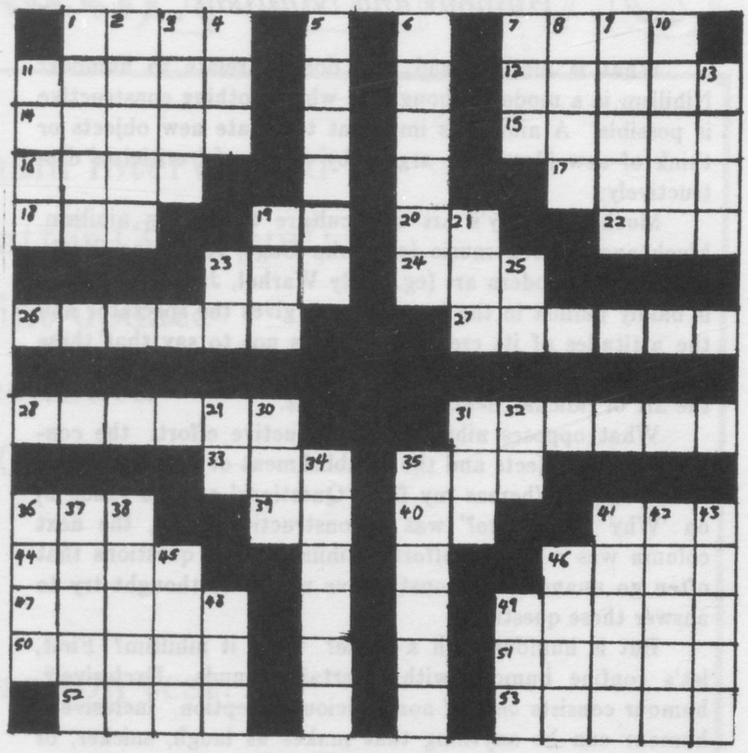
Return by Midnight

BYO EVERYTHING!

(tickets are available in MathSoc)



The Man With the Golden GridWord



This week, **mathNEWS** presents a James Bond style GridWord by Maggie Brunton (with some help from the **mathNEWS** staff). Just fill it in and submit it to **mathNEWS** via the black box across from the Smoking lounge on the third floor of MC (or under the door of MC3035, or at MathSoc (MC3038)). You too could win a Mathie t-shirt! Have fun!

Across

1. the huge guy with the metal teeth
7. the first (and best!) 007
11. Menachim's friend
12. Ramjet or Moore
14. 'Get ---'
15. 'Dead Men Don't Wear Plaid' star
16. member of Exciting Mission Team
17. afresh
18. Honeywell Time Sharing Service in no time
19. Nein
20. secret service
22. prefix for three
23. New Moon on this day
24. see 32d
26. wrapped around same
27. What the Avengers do
28. the Chief's and Max's pal
31. The Man with the ----- Gun
33. AR is fired from the 'board'
35. on the ---
36. secret agent
39. erehW (Fr.)
40. United Nations
41. starred Efrem Zimbalist Jr.
44. good cookie
46. Thunder----
47, 23d What the Spy did (from a title)
49. Current time co-ordinate reference
50. AISLO : 53412
51. a single District Attorney
52. For whose eyes? (title)
53. An Edsel is broken down at the end

Out To Lunch

Down

1. First name of a major spy character
2. was Maxwell Smart
3. growth on finger
4. Spy Training Team
5. was 99
6. bad guys in The Man from UNCLE
7. Spy Rehabilitation Society
8. Misspelling of 'iota'
9. spy
10. say it again (don't)
11. Service Secret Majesty's Her
13. Incomplete rewind
19. neither
21. chicken of, or buried at
23. see 47a
25. Robert Vaughan
29. Barbara Bach
30. --- Only Live Twice
31. Walther PPK
32, 24a. -- --- Majesty's Secret Service
34. _____ oh to kill
35. enemy country
36. alone UNCLE
37. wearisomely dull
38. LOVEY : 54312
41. loses colour
42. knife part
43. Napoleon's partner (UNCLE agent)
45. 4 of the vowels
46. Canada is saving James
48. director (ab.)
49. foot part

* Who: *Which:

The TAKITH Prize of the Week

This is a return of a once-regular feature in **mathNEWS**, which awards brickbats and bouquets to certain persons, places or things. If you have any nominations, please send them to **mathNEWS** via the usual channels (i.e. through 3rd floor mailbox, some **mathNEWS** computer account, etc.).

Our first prize this time around goes out for the relocation of the CS assignment boxes from the fifth floor to a dark corner on the sixth. This is especially noticeable as students trudge up the stairs through vast distances to hand in assignments (Gasp! Wheeze!), only to to participate in a game of hide and seek attempting to deposit their assignments. Nevertheless, this move could contribute to physical fitness on campus.

Also, the second TAKITH Prize of the Week goes to the **mathNEWS** editor who has delayed the start of this column by a month by somehow leaving it out of the last two issues.

Questions

Humour and Nihilism

What is nihilism and how does it relate to humour? Nihilism is a mode of thought in which nothing constructive is possible. A nihilist is impotent to create new objects or think of new ideas. He argues by denial and criticizes destructively.

Much of today's art and culture thrives on nihilism. Much avant-garde music (eg. John Cage, Karlheinz Stockhausen) and modern art (eg. Andy Warhol, Jackson Pollack) is baldly nihilist in the impression it gives the spectator and the attitudes of its creators. This is not to say that these are not works of art, but rather that they are negative art, the art of ridicule, denial and madness.

What opposes nihilism? Constructive effort: the construction of objects and the establishment of meaning. This is not easy. Whereas my first 'Questions' column (issue 2) on 'Why am I here?' was a constructive effort, the next column was a nihilist effort. Nihilism poses questions that often go unanswered; constructive modes of thought try to answer these questions.

But is humour such a mode? Or is it nihilism? First, let's confine humour within certain bounds. Exclusively, humour consists *only* of nonmalicious deception. Inclusively, humour can be anything that makes us laugh, snicker, or just lightens our minds. If we take the first definition, then the quality of non-malice implies that humour has a describable purpose. In this sense, humour is not plainly nihilist.

But if we take the second (better) definition, it is necessary to classify humour (or humours) into various genre: parody, hyperbole, satire, wordplay, slapstick, etc. Some of these genre seem more pointless than others. The easier examples are satire and slapstick.

To clarify our notions of nihilism, take the example of pornography. Pornography is nihilist: it is filled with purposeless hate and abuse of women (cf. the Latin derivation for the word 'pornography'), the denial of time and change, and the denial of constructive effort. Its ejaculations are the bitter essence of nihilism. When we turn to slapstick, things are not much better. Again there is a denial (even jeering at) of constructive effort; watch any old Laurel and Hardy film—what you see are the images of destruction, not creation. We learn nothing from slapstick and other forms of low comedy.

But there are forms of humour that escape nihilism. These forms were more prevalent before this century, before the dissolution of Western art, philosophy and culture. For example, when this paper publishes a short article parodying the outlandish coloured journalism of the **Chevron**, the humour is not without significance or purpose. This form of double-edged parody is difficult to achieve, and we hard-working writers at **mathNEWS** cannot always do so.

The best advice to the reader is to remember these thoughts on nihilism. Keep them as large grains of salt to be taken with all forms of humour you encounter. See the purpose and effort behind events and objects just as well as you see their impact.

Tom Ivey

Not the Mathematics Column

by Not Young Frank Einstein

Often heard in mathematics is an interesting, but simple theorem of counting, known as the "Pigeonhole Principle". This theorem states that if you have k containers, and you place $k+1$ objects among these containers, some container holds at least two objects. Furthermore, we can extend this theorem by claiming that if there are k containers, and $nk+1$ objects are placed in the containers in any order, then there will be a container containing at least $n+1$ objects. It's easy to understand, but this principle has a wide variety of applications, even in complex mathematics.

Can you apply Pigeonhole principle to the following question?

> *"A regular hexagon with sides of length 1 has seven points inside it. Show that there exists at least one pair of points with a distance of 1 unit or less between them."*

From last issue, I would like to apologize to those whose UW ID numbers have a third digit which is "1". It appears that students who applied to UW from Ontario can have a "0" or a "1" as the third digit, and not just the "0" as implied in the last issue.

Also, from last issue, you can calculate ISSN numbers of the form

$$a_1a_2a_3a_4-a_5a_6a_7a_8c$$

by the formula

$$(3a_1+4a_2+\cdots+9a_8) mod 11 = c$$

For example, the mathNEWS ISSN number of 0705-0410 checks out as:

$$3\times0+4\times7+5\times0+6\times5+7\times0+8\times4+9\times1=99$$

and 99 mod 11 = 0, which is indeed the check digit.

Thank you for your responses so far to this column. Watch next issue for more mathematical (or perhaps even non-mathematical) subjects in this space.

Riddle of the Week

My first is in open and also in close,
My second, a spot to put her in throes.
The third—what a southerner might breathe;
My fourth's what you see most of, swinging through trees.
Next the second beginning of Cartesian Space,
Followed closely by the end of all things.
My whole when assembled aloud, an escape—for you, the way out.

GSBingle

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