## Your interests as students are at stake!

## Federation (That Means You!) GENERAL MEETING

Friday, October 29, is the date of a General Meeting of the student body.

Potentially it is one of the most im portant student meetings to have been held in recent years. Called by the Students' Council, it will decide the fate of proposals for a new or re-opened chevron.

It would be imprudent, if not recklessly speculative, to predict at this point the outcome of the meeting. It is important that you have your say in this investment of over $\$ 40,000$ of our student funds. The meeting will be held in the PAC, October 29, at 12:30 p.m.

Shane Roberts
Dave McClellan
Harry Eastman

## Solution

From the Gazette-
We've had another suggestion for dealing with the pigeons on the Math building, from a gentleman who asked us not to use his name and who took a rather ecological point of view: "Would it not be much more humane to simply explain to the birds that what they are doing does not meet with our approval? Pigeons are amiable creatures and seem to have a special friendliness toward mankind. I am sure that if they understood that their droppings offend us, they would be more discreet."

## Creative Arts Board

## Presents

## The Maids

This is the chance for all you uncultured types to make a change. On October $26-30$ at $8 \mathrm{p} . \mathrm{m}$. in the Theatre of the Arts, with a special matinée performance Friday, October 29 at 2.m., $\$ 1$, the Creative Arts Board presents The Maids; the first production of the Playbill Series this term. This play is by Jean Genet \& directed by Maurice Evans, so a decent production is guaranteed. Tickets are available from the Theatre of the Arts box office in the Modern Languages building. Cheap for students.

It's sadistic! It's psychological! It's illusory! It's frighteningly real!, they say.


## DISEASE WARNING

There appears to be a new disease on campus, as yet unisolated. The main symptom of this disease is an elusive hardware failure which staunchly refuses to be repaired.

So far, the disease's only victims have been of the relatively weak PDP-11 breed, specifically UNIX and the interface for the WIDJET free-room.

This is not very serious, since both of these computers are totally insignificant to most hacks; however, the disease is spreading! Soon, other PDP-11's will be affected. CCNG/UNIX will follow in the footsteps of his cloned brother, Math/UNIX.

Then, almost overnight, the virus will mutate. Within weeks, DECs, NOVAs, and the IBMs in the Confusing Center will fall before the onslaught of the dread plague. Even our beloved 6060 (salute when you say that, son) will not survive!

There is only one way to save the world's computers from extinction. If we are to prevent the disease from spreading, you people from Digital, Diva, etc., get those machines fixed, before it's too late!


## Social Committee

The Social Committee will meet at 10:30 a.m., Monday, October 25, in MC 3038 to discuss plans for the fall Math Week. All welcome!

## René Descartes

On Tuesday, November 2, at 8 p.m. in MC 5158, Professor D. R. Snow will address René Descartes scholars on Sum of the Powers I Have Known (Integers and Functional Equations).

I would like to announce that we have five new council reps, from 1 st and 2 nd year. Mathsoc council welcomes the arrival of:

| Diana Flis | $(1$ B-stream $)$ |
| :---: | :---: |
| Rosanne Ristich | $(1$ B-stream $)$ |
| Garth Zambory | $(1$ B-stream $)$ |
| Brian Gregory | $(2 A$-stream $)$ |
| Geoffrey Hains | $(2$ Regular $)$ |

The only drawback to this situation is the fact that council requires a total of 15 more representatives in by-elections. Any interested parties can contact me at Mathsoc (MC 3038), almost anytime, or via TSS, userid mathsoc (to elburke).

The other item of business for this week is the upcoming General Meeting for the Federation of Students. This columnist would appreciate seeing a large turn-out at this meeting. (I have just been informed that I am "mathNEWSing"! A new usage.) Proxy forms are available at the Fed office or here in Mathsoc office. I have found that a lot of people are unsure of the proper procedure involved with these forms. A voting member of the Federation (i.e., all students, including grads) can proxy his/her vote to anyone. Anyone attending the meeting, however, can have only five(5) proxy votes as well as, if applicable, his or her own vote.

That's it for this week. You can expect future articles from this source.

Ernie Burke
Director of Internal Affairs

## On the factorization of large BURbOAR

There are only two computer systems that I have encountered which have produced a set of what might be called devotees. These are APL and UNIX. The Honeywell, in years gone by, came close. Rather than accepting the idea that each computing system available tends to be the best only for a particular class of activities (some systems' classes being larger than others), these devotees believe that their system is utopian, and superior for all tasks. These people can be seen doing things one way, when an obviously superior way exists, for the mere reason it is their system's way of doing things. Manifestations of this syndrome are shown by attempts to make Honeywell TSS look more like UNIX, and the perpetual extolling of why APL is superior for solving whatever ails you that goes on in the CSC office nowadays.

The Hacks are embarking on a new adventure after taking a lesson from the AIA. It appears pretty certain that the AIA, using free chevron workers as pawns, will stack the upcoming general meeting of the Federation of Students. (I wonder what it's like, just wanting to take part in amateur journalism, and winding up being used by a political organization.) Each worker will be given five (the legal limit) proxy forms to allow each person to effectively have six votes.

The Hacks plan to arm themselves similarly with a pile of proxies and attempt to similarly stack the meeting. This might allow them to force through a motion to make it illegal for the Board of Entertainment to allow Disco at any of their functions. This means that they would have a chance to play Good Music, which would be enjoyable, which is the way entertainment should be.

More Hackland news:
You may remember, that many years ago, there was a rather notorious Hack who appeared to the average user as all

## Coming Soon

INTER-SOCIETY WEEK
November 14-20
(more details soon)

hair and nails. Recently, to the surprise of all, he cleaned himself up a few months ago. He did things like get his hair cut, fingernails trimmed, and userid cleaned of spurious punctuation. Except for the odd giggle among the Hacks, this change wasn't considered too important. 'Twasn't thus! Apparently this Hack's interests have wandered outside of the domain of computers and weird things. More than once recently, he has been seen rushing by a door with a female associate. Other times he will stop whatever he is doing, saying rather mysteriously, "I have to meet someone", and then rush out hurriedly.

Any behavior such as this, something remotely resembling behavior of normal people, something that is this un-Hackish, is bound to draw notice from people who know him. But the secrecy that this Hack is shrouding over the whole thing has really got everyone's curiosity riled up. It seems that many Hacks' main preoccupation has turned to finding about this very peculiar (for this Hack) behavior. On the night that mathNEWS was being assembled, there was this Hack, at home, apparently trying to impress his newfound associate (wuse listings reveal him running a different game each night), being sent mail messages from a whole gaggle of the other Hacks who were occupying a terminal room, trying to find out what the action going on at his place that night was.

This week we have a new feature. In this space, each week, we will be presenting a FED_REP_OF_THE_WEEK. This week's FED_REP_OF-THE_WEEK is J. J. Long. His first name is John, but everyone calls him J.J. so much that seeing the name "John Long" in print catches one off guard.

Basically, J.J. is a great guy. He stands up for the average student's rights. In the face of attempted subversion of the Chevron by the AIA, he stands up for journalistic freedom. In the face of silly CRTC rulings, J.J. stands up for the right of all people to hear good rock music on FM (i.e., listening to WBUF). Yes, he
stands tirelessly in Mathsoc, usually on a chair or desk, forever adjusting the rabbit ears antenna, trying to capture the weak signal from the airwaves. J.J. stands for the rights of Canada's lumbermen to remain employed by running his programs on Debug.

Seriously, J.J. does try to do a good job as federation representative, in the face of all the lack of apprecation he gets, and I think he should be commended for that.

The INTEGER_OF_THE_WEEK this week is

## 147573952589676412927.

This might appear at first glance to be just some random conglomeration of digits, but at a closer look, it becomes apparent that this number is $2^{67}-1$, which is one of the Mersenne numbers. Mersenne numbers are all numbers of the form $2^{p}-1$, where $p$ is a prime number.

Mersenne was a mathematician who, in 1644 , claimed that the only values of $p$ for which $2^{p}-1$ is prime are

$$
2,3,5,7,13,17,19,31,67,127,257 .
$$

Mersenne was an intelligent mathematician, but on this assertion he was quite wrong. First it was found that $2^{61}-1$ was prime, and then a mathematician named F. N. Cole in 1903 revealed that $2^{67}-1$ was composite:
"At the October, 1903 meeting of the American Mathematical Society, Cole had a paper with the modest title On the factorization of large numbers. When the chairman called on him, Cole-who was always a man of very few words-walked to the board and, saying nothing, proceeded to chalk up the arithmetic for raising 2 to the 67th power. Then he carefully subtracted 1. Without a word he moved over to a clear space on the board and multiplied out, by longhand,
$193707721 \times 761838257287$.
The two calculations agreed. Mersenne's conjecture-if such it was-vanished into the limbo of mathematical mythology. For the first time on record an audience of the American Mathematical Society applauded the author of a paper delivered before it. Cole took his seat without havig uttered a word. Nobody asked him a question." (Eric Temple Bell in The World of Mathematics)

BURGOAR

## Attention All Graduating Students

## PSC Midterms

Did you know that you missed two midterms in PSC ' 76 this week? The first was in FS (Foreign Service) ' 76 on Saturday October 16 at 9:00 a.m. At that time about 100 Foreign Legion fans wrote a 3hour exam consisting of a general knowledge test, a logical reasoning test, and an essay test. The first two tests were multiple-choice with no penalty for "educated" guesses. The tests were scored using giant 100 -question mark-sense sheets. The sheets make UW's forms look like tiny scratch-pads.

The general exam was about Canadian and world geography, literature, and people.

The logical reasoning exam contained such questions as:
"A stranger enters the embassy and announces that there is a bomb somewhere in the building. What is your first course of action?"

If you said get the hell (oh, pardon me) heck out of there, you will be stationed in Outer Siberia.

The essay was to summarize, without falling asleep, Hansard (the Official Parliamentary Proceedings, for all you a narchists) of July 21, 1975. The debate centered around Canada's postponement
of the UN Conference on Crime Prevention in Toronto, September 1975.

Last Tuesday October 19 at 7 p.m., was the scene of the AT (Administrative Trainee) midterm. There, a horde of artsies and a few business students filled the n-jineer pit-EL 101-almost to capacity. They wrote a 90 -minute exam consisting of 6 parts. The tests included general knowledge, word association, word comprehension, and memory-recall tests. There was also an arithmetic test-the usual "how many oranges does George have" variety. Again, all tests were multiple-choice with no penalty for guessing.

In the first part of the memory-recall exam, entrants memorized, in 12 minutes, a one-page story about John Someone-orother taking a trip to Who-knows-where ville in...uh...Irkland.

Then, to break the monotony, entrants had to write the next exam. This was a Picture Association test-finding how many black boxes were in the $3 \times 3$ square-very boring for mathies. Finally, the testees (people being tested, of course!) had to write an exam on how much of the Trip-story they had forgotten during the previous test.

Good Luck to all those who tried the midterms-maybe some of you will be joining $47 \%$ of the Canadian work-forcethe Civil Service...

The Saint

## ventures into Hackland

In the Federation General Meeting, which will be held on October 29 at 12:30 p.m. in the PAC gym, some of the bylaws propose changes in the chevron's structure. I hope you will get out and vote for these bylaws, which propose a representative editorial board for the chevron. I believe these bylaws must be passed. If they are defeated, we may never be able to get a chance to change the paper. Of course I prefer taking the chevron right out of the Federation with its own separate voluntary fee; however, we must set up the board first and hopefully it will lead to that. While staff should have some control of the paper, in the long run power should rest with the students who pay for it, through an editorial board.

I withdrew some of the bylaws I presented to Shane Roberts, as they were not in a suitable form and the meeting would've been too long. One small, neatly-written amendment to bylaw 12 was not withdrawn, but Roberts neglected to publish it as he was supposed to. However he allowed five motions (four of them submitted by Salah Bachir) which
essentially said the same things. These redundant motions could've been submitted as one motion, saving paper and leaving room for my small bylaw. In fact I will not be surprised if these five motions get challenged at the general meeting.

In this week's new feature, Randall J. Howard is hack-of-the-week. Randall was probably more instrumental than Mr. O'Donnell in developing UW Unix software. Also the Computer Science Grad through H.T.I. (Hack Tours International) has given culture to hacks and others at UW by organizing trips to plays, concerts and the like. Having a better taste in music than the other R.J.H., Randall has helped Mathsoc in achieving better reception for WBUF-FM and I appreciate his efforts.

I've just learned that Mathsoc will hold a Society week from November 13 to 20 with the Arts, Env. Stud., and, believe it not, Science societies. Events to be held include a tug-of-war, pubs, a spelling bee and a Wine and Cheese party. a semiformal has been organized for Saturday, November 20, at the Valhalla Inn. The cost is $\$ 14$ per couple for society members (Math, Arts, Sci), $\$ 16$ for others.
J. J. Long

## CSC Inaction Lives!

In a unanimous decision this week, the CSC executive passed the following motion: That the mew motto of the CSC is "...at the end of next week"

So if you want to know when the CSC membership cards will be ready-they will be ready at the end of next week. In addition, the next CSC meeting will be at the end of next week. We are getting quite used to this at the CSC office. People keep coming in and asking these two questions. We have started answering them before they ask the questions. The executive of the CSC don't know what to do for a meeting or at a meeting, so they are now saying that it will take place as soon as they get the membership cards. Which, as I already remarked, will be the end of next week. Actually, they have gone to Graphic Services, who, with their usual great speed, have said that they will be ready at the end of next week.

If you have any suggestions for things for the CSC to do, of any sort, please come to the CSC office with them. We will be glad to ignore them and continue our inaction. For those of you who don't yet know, the CSC office is right across from the Mathsoc office. You can smell it from miles away. If you don't know where the Mathsoc office is, too bad. Actually you just go to the third floor of MC, and go to wherever you hear the loudest noises.

For those of you who don't know, coffee, tea, and hot chocolate are available in the CSC office. Those of us who do know are drinking it up and hoping you don't know that it comes out of your membership fees: as we aren't going to do anything else with that money, we've got to do something with it.

If you feel that the CSC isn't turning out the way you'd like it too, you can do something about it, you can kick them out...it's your club, you can do with it what you like...so come and complain....I know that many of you don't like what it's not doing but until you do something...

CSC inaction will continue!


PULSE

This week we discuss some features in the programming language $\mathrm{PL} / 1$, some interesting uses of VM/370, and a course content change in CS 342.

The PL/l programmer may specify an extraordinary condition under which specific action is to be taken. For example:
on condition(cond_name)
begin;
${ }^{\prime *}$

* code to handle this condition follows
*/
end;
signal cond_name; /* this raises
* the programmer-
* defined condition
*/
One possible use for this is to provide fake hardware interrupts in a program to simulate a computer. It allows the programmer to escape deep levels of subroutine calls, once an interrupt type of condition has been detected.

The implementation of PL/ 1 on IBM $/ 360$ and $/ 370$ under OS/MVT (or VS2 on /370 machines only), allows the programmer to specify a subroutine to be executed in concurrent fashion-that is, as a separate task. This is somewhat analogous to the UNIX system call fork (e.g. processid $=$ fork (); in the " C " programming language) for initiating a separate process. In PL/1 the usage might be:
/* invoke the concurrent procedure */ call concurrent_proc(parm1,parm2) task event(el);
wait(el); /* wait for concurrent_proc to end ${ }^{*} /$
This section of code would invoke the subroutine procedure concurrent-proc as a separate task. In a multi-processor environment this might actually be executed concurrently, but in a uniprocessor multiprogramming system this is simulated as a result of multi-programming. Control
will be returned to the invoking program after initiation, without waiting for the concurrent procedure to end. A subsequent wait can be issued depending on an event variable associated with the task (as specified in the event option of the call statement. The procedure can be invoked several times concurrently if the procedure had been declared as re-entrant thus:
concurrent_proc:
procedure(parm1,parm2) options(reentrant);

It is also possible for input/output operations to run concurrently, as in this example:
read file(infilel) into(instruct) event(read_event);
wait(read_event);
VM/370, running on the computing centre $370 / 158$, is a very interesting tool for the operating system designer/systems programmer. For the programmer, it allows testing of production software under a local change to the operating system, or the testing of distribution software (given out to other installations) under all the operating systems which should support it.

For the designer it allows experimentation with operating systems, using different kinds of devices and different processor and channel configurations. For example, the multi-processor version of OS/VS2(MVS) can be run by configuring a second CPU in your environment (this feature may not be available here) and running the version of the system to be tested. At any time, the virtual machine can be halted, the machine registers examined, changed and execution resumed. Access methods for new devices may be tested, and networked systems may be simulated by configuring a channel-tochannel adapter for CPU-to-CPU communication.

The computer science curriculum people made a good move for many 3B students this term. They changed the course content of CS 342. In the 1976-77 calendar handed out last March, the course was titled Implementation Schemes For Programming Structures. Subjects to be covered were: searching and sorting, run-time representation of a high-level language, dynamic storage
management, and text manipulation.
When this term rolled around, the course was titled Machine Structures and was supposed to be about low-level machine architecture. This change was supposed to reflect a change in CS 450, a fourth year course in computer architecture which formerly covered these lowlevel subjects, but now will be freer to go into case studies of actual hardware configurations. This is to the benefit of the students but during the pre-registration period last March it was quite acceptable to take both CS 450 and CS 342 at the same time, since CS 450 had only CS 340 and CS 369 as pre-requisite courses. Many students did in fact pre-register for and are now taking both-resulting in quite a bit of overlapping material being taught to these unfortunate (fortunate?) people. Somewhere, something in the decision-making process for the computer science curriculum went wrong.

Random Bits:
Math/UNIX won't be up until next week at the earliest(?)

There's a neat hardware bug in the Honeywell 6060 which, if exploited properly, can cause GCOS to crash. No software changes can fix it, but I wouldn't recommend trying to use it, since you might find your userid disappear (DELMASed that is)

Randall Howard (responsible in his undergraduate days for more than one GCOS crash, including at least one file system crash) who is one of the UNIX system people, wrote some of the communications software I mentioned last week

The CSC might be having a meeting soon; look in around the CSC office for details.

Corrigendum: From last week's column: dcl array (*,*):
should have been:
dcl array (*.*) controlled;
and:
dcl an_ident fixed binary $(31,0)$;
should have been:
dcl an-ident fixed binary( 31,0 ) controlled;

Next week: Quirks in some IBM operating systems; What really goes on around here (?)

Peter Stevens and Kevin Delbarre


## No mathNEWS this Friday

Since this issue is appearing on a Monday (which is the result of a compromise between skipping this week and skipping next week, combined with a communication problem), the next one will be dated Friday, November 5, and produced beginning at 7 p.m. in MC 3011 on Tuesday, November 2.

There has been controversy lately about freedom of the press and biased reporting. mathNEWS tries to print everything its people write which is relevant to UW math students, and almost everything written by its regular columnists. Articles are edited for style, and less relevant ones may be compressed or cut. (And of course the editor is responsible for what goes in what part of the paper.)

We would be delighted to have you come and write for us. Is that clear? We need, even more, really, people who can lay out pages (and are willing to do so at peculiar times in the morning).

This is an all-volunteer publication. Why don't you come out and volunteer sometime?

## unclassifiable $D$

mathNEWS will print your ads free of charge. Just jot them down on a piece of paper and put it in our mailhox on the third foor across from the C\&D lounge, or take it to Mathsoc and have them put it in our mail slot. or put it in the mail addressed to math N.IVS, MC 3038, or send them in the mail subsystem on TSS to userid math NEWS.


Wanted: Rapist. Must have experience. Must supply his own work clothes, which will consist of a yellow, long-sleeved Tshirt with red spots and a balaclava (blue).

Physical requirements: Successful applicant must weight $180-190$ pounds [ $82-86 \mathrm{~kg}$ ] and be approximately 27 years of age.

Apply at rear of Architecture Building or phone $885-1660$ during office hours.

For Sale: One (1) cigarette machine with missing coin box. Best offer. No delivery. All inquiries to be made to msfine via TSS, or phone 886-0178.

Seek solution to meta-mathematical puzzle:

You are standing on the edge of a large pond. You are holding a cardboard shoebox, a machete, and a stapler. You observe a group of six or seven ping-pong balls taking turns bobbing for apples, about four feet from a distant pier. How do you tell your senile aunt about it, using only the stapler and the shoebox, and her telephone directory (not the yellow pages)? Contact pckelly.

Wanted: 4 girls urgently require a twobedroom apartment/townhouse as soon as possible. Please phone Rose at 5764713 if you can help.
Wanted:
One infinite-length tape for my Turing Machine. Will trade infinite-length memory from my Counter Machine for same. Urgently needed to eliminate Numerical Analysis courses and for simulation of UNIX to complete assignment. Contact: Edash Croft.

Found: $1 \$ 1$ bill (serial \# GR6728078) by MC Building. Finders, keepers. Losers, weepers!

Sir Michael Redgrave
in

## A Celebration of Shakespeare

It is a rare treat to have such distinguished company grace the stage of our Humanities Theatre. Sir Michael Redgrave, well-known actor-knight of the international stage and screen, brings with him on October 27 a troupe of fine British stage stars in Shakespeare's People: Philip Bowen, a young actor from Britain's repertory theatre; Elizabeth Counsell, a talented Shakespearean actress; David Dodimead, a world-tour veteran with wide-ranging talents; and Rod Willmot, guitarist and lutenist with the National Theatre of Great Britain, who sings the lilting catches from the plays.

Sir Michael Redgrave himself was practically born on the stage. He is the son of touring actors. He started his career in 1934 at the Liverpool Repertory. After two years he was seen by Tyrone Guthrie who took him to Old Vic in London to play Orlando to Dame Edith Evans's Rosalind in Sir Laurence Olivier's first Hamlet. The acting tradition is being carried on in his family by daughters Vanessa and Lynn and his son Corin.

The programme is billed "A Celebration of Shakespeare in Words and Music" and is broken up into the seasons: Spring, Summer, Autumn and Winter (in case you didn't know). It is well-balanced in a mixture of poetry, tragedy, comedy and song. Featured are excerpts from a wide range of Shakespeare's works including Hamlet. As You Like It, MacBeth, Twelfth Night, Romeo and Juliet, the historical plays and the Sonnets (so what else is there?).

The program has been devised and directed by Alan Strachan, who has done extensive work with the Mermaid Theatre of London, England. He last directed Sir Michael Redgrave at the Mermaid in The Old Boys by William Trevor (1971) and then co-devised the long-running and internationally famous revue Cowardly Custard.

The UW Arts Centre has taken this occasion of Sir Michael's visit to plan a reception with representatives from the Arts Community of the Twin Cities, to meet one of theatre's most renowned personages and to exchange ideas.

Shakespeare's People will appear on Wednesday, October 27, at 8 p.m. in the Humanities Theatre. Tickets at $\$ 6.00$ (Students and seniors $\$ 3.50$ ) are available at the Main Box Office, ML 254. Telephone 885-4280 or ext. 2126 and ask for Betty.

Betty Adare
Publicity Co-ordinator
 When man bites dog, that's news.

Perry White

Despite Mr. White's admonition, I will include details of all the records.

For those among you who have been curious, the Catfish who lost to Kansas City and Cincinnati in recent days is not the author of this article. The fact that he lost is purely coincidental. Sorry for the confusion.

JJBT faced Math in volleyball last week. Led by their (male) athletic director, John Ellis, the Math team decided not to show up. Actually, four members did show up for Math, but they were not sufficient to stop a traditional [by default] JJBT victory.

After JJBT lent Ron and Goo to

Math, the match proceeded. Records fell by the basketful:
$\square$ most blitzes of the server;
$\square$ most blocked serves (Merlin blocked one of Ron's serves);
$\square$ most successful serves off the back wall and over the net (one each by Petec, Press, and Catfish);
$\square$ most successful place serves (serving from a tee) (one each by Petec and Bill Bunker);
$\square$ most catches with the broad end of a tee;
$\square$ most yards lost attempting to serve (Math's record);
$\square$ most successful CN Tower specials (players on both teams attempted many); $\square$ world's silliest game.

## Math Hacks Broomball

Once upon a time, you knew that Team Hot Dog would win any broomball game it played. However, since their loss last term to the Whiz Kids, they have obviously gone downhill.

On Tuesday morning, from midnight to 1 a.m., the Hot Dogs played your favorite team, the Math Hacks. The Hot Dogs showed up without their goalie (who, they claimed, had an 8:30 midterm), so a trade had to be arranged. After much discussion, we gave up rights to Joe the Drunk in exchange for two women players (Hot Dogs: "hey Joe, were going to Scrooge's for a beer after the game". Joe: "I'm playin' fer youse!")

Here, let us pause and consider what this means. At times, Joe is the best goalie in the world, and he's still pretty good when he's sober (you'll recall that the Hacks were in the running for the broomball championship last year, 'til Joe got upset when the ref stole his beer glass and
threw him out of the game). How were the Math Hacks to score, let alone win, with such a goalie against us?

At this point, JJBT comes to the rescue (as usual). Steiner showed up and volunteered to play goal for us, saying in an exclusive mathNEWS interview, "I've never played net before, but I'll give it a whirl. It's the only position I've never played before, and I should give the rest of the guys in the league a chance at an allstar selection" (Steiner took all three forward positions and one defenseman's position on last year's first team all-stars). Also, to help out our offense, Catfish showed up.

Team Hot Dog scored first, with a bad break giving them a three-manbreakaway. They scored on the 4th shot. After the ensuing face-off, Catfish picked up the ball, deked 4 of the Hot Dogs out of their boots,

I would be remiss if I didn't mention the steady, albeit unspectacular, play of May-Ling in her second game as a member of the team.

JJBT played its first game of inner tube water polo on Sunday. Your humble servant played the game without his glasses, and spent most of the game underwater (the victim of some vicious attempts to drown me), so I didn't see a great deal of it. I played in the attacking zone, so I saw that we got some goals. On the other hand, I couldn't see the other end, so I wasn't able to determine if the other team had scored (Rumor has it they did).

Ron Steiner and I also played for Math's broomball team. I know that Math tied the Hot Dogs 2-2, but I broke my glasses in the game, so I can't report much about it, either.
and raced down the ice. Not wanting to do it all on his own, he passed to John Williams, a rookie, who had an open net and scored.

Throughout the game, the Math Hacks kept the pressure on, until another freak play gave the Hot Dogs a 2-1 lead. At this point, late in the game, Catfish decided that it was time for another patented rush. Again he decided not to take all the glory himself, and passed off to someone with an open net. Once more, John Williams scored to tie the game at 22. Although we had numerous chances after this, we were unable to score and the game ended in a tie.

After the game, the Hot Dogs were so upset that Joe wasn't invited to Scrooge's for a beer.

Was he ever mad!
Math Hacks

Well, it finally* happened! mathNEWS was the recipient last week of a completely error-free Gridword! As a result, mathNEWS was deluged with correct solutions-in total, 12 correct of 21 submissions. For obvious reasons, creator

Ray Butterworth's submission was disqualified from the set of correct solutions. This week, all solutions (correct or otherwise) were grouped and the process of determination consisted of the selection of a random member of the set, and


A1 REVERSE DELMASS
A9 lab person
B1 \& about
B8 X
B10 system ?lisp
C1 prof sound
C7 WUSE flag
C11*
D1 small Hebrides isle
D6 rotten 240 language
D12 integral
E1 is 2nd person
E5 address register
E9 DATA
E13 grain
F1 Eliot
F4 "Catch, Laddie"
F8 plural
F10 Disco
F13 medium soft
G1 vowel
G3 you'll get a laugh out of this
G7 Da Doo Ron Ron mwwwrreeeepbwwweeeooop
G11 cistern
G15 see G1
H2 Ben
H6 Killer
H12 ~ (go to)
I1 see F8
I3 West-side Chiago 17?
I10 Cuban AIA Local made good
I15 I1-1
J1 360 operating system
J4 10th letter Hebrew (Catfish) J8 last
J10 EXPL B LIB ANY
J14 140.12
K1 CTRL X
K5 popular EIS instruction
K9 Combine Strings Right
K13 Female
L1 Biol.
L6 truly disgusting language
L12 river duck
M1 daughter of Abu-Bekr
M7 debugging instr.
M11 Reverend Norman
N1 uni-equinally propulsed
N8 future language
N10 see N8
01 ~himself
09 Fired profs


1 A emanate
$11 \mathrm{Na}_{2} \mathrm{CO}_{3}$
2A program feature
2H 115
2J decrepit
3A not JJ o.e.
3G French Lake
3K step up 1A-tion
4A Life program
4F X
4 L see J 14
5A ~~zero
5E American Expeditionary Forces
5I I/O multiplexer
5M "How long have you been?"
6A St.
6D synthesizer
6H I15-1
6 b race course
6 N hectoliter
7A see G15
7C 1st Putrid Language
vs. 7G mud fighter
7K . 434 lawn
70 hexadecimal
8B programmer's expression
8F desc. of this Gridword
8L $1011100001101100 \rightarrow 47212$
9a great programming lang.
9G per G7
9 K corn
90 see 70
10A calculator
10D dirigible
$\mathbf{1 0 H}$ integer
101 Arithmetic Shift Left
10N Biblical
11A Extra Long Abbreviation
11 E
11 VIA system
11M @
12A S.W. table
12F Lanky Yankee
12K Descartes had one
13A medical-
13G IF(NE) $\rightarrow$
13 K seats
14A A v B
14H C 9A
14 J foreign chicken place
$15 \mathrm{~A} \$ 1.50 \delta$
$15 I$ \& Rockers
verification of its correctness. This process was to be repeated (by someone whose size and violent nature precludes any dissension) until a correct solution was found. An unusual occurrence was the result. My solution was first drawn. However, I was last week's winner!! To compound this, I was certain that mine was a "winner"! Pandemonium reigned until the sharp eyes of our scrutineers. spotted the fact that 1 , in a fit of temporary insanity, had substituted an " $\mathrm{e}^{\prime \prime}$ for the last letter in 1 down. This has been an annoying fault in my academic career, as well. In any case, this week's winner is:

## Rick Cameron.

Rick can get a free-math-T-shirt certificate at the next mathNEWS production meeting, beginning 7:00 p.m. Tuesday, November 2, in MC 3011.

Catfish was explicit in the distinction between zeroes and the fifteenth letter of the alphabet. This becomes a trivial matter when there are no zeroes in the puzzle. He is also our resident linguist, and thus quarrelled with the article in 14 Across. To Alan Goodenough, your attempt at folding a "Klein Bottle" wasn't. Points for neatness to the CSC office. Dave Newell and Greg Andrews, circles with slashes are zeroes (check your neighborhood CRT). $\dagger$. David Woodburn, Ken Andruchow, and Roger Peterson, you were guilty of, not only that, but also incorrectly answering 7 down as "Yes is" and not "Yes am", an error shared by John Walker, Bruce Risto, and Chris Uttley. Oh, and Chris, your use of color garnered honors for my favorite solution, even if it was wrong.

This week's Gridword has been brought to you by David John Buckingham and Johann George. The
"Grid" is trivial, but the "word" is not. To those of you who enjoy a challenge, here you go. If you run into problems, you might find some help available at the CSC office (MC 3037) or from your friendly neighborhood hacks.

Remember, if you can't beat the Gridword, win a T-shirt by submitting your own to be solved by the rest of the gang.
logo

* I object! My Gridword was completely error-free. Anyone taking issue with that, or needing an explanation of one of the more obscure clues, come to the next production meeting. $\ddagger$

Mark Brader
$\dagger$ No, the only really correct distinction is that O's are wider than 0 's. Check your neighborhood printer.

Editor
$\ddagger$ In fact, come anyway. We need you as staff.

Editor

## Here is my colum.

The words which follow are my column, which is mine.

Good afternoon, and welcome to another edition of our new colunm. This week, we will be taking a look at various types of natural phenomena, and giving you suggestions as to what to do in case you should come across any of these miracles/disasters. Starting such a discussion is always the toughest part, but we can make it easier to learn the ways of the world by giving a few examples before the heavy stuff (the so-called meat of the matter).

Number 1 (one), lightning: Suppose a lightning bolt strikes your house. Don't worry, it's a very natural thing, which happens a lot, especially in towns and cities where people live. It is not a cause for alarm. It is a very normal experience to be hit by lightning, and the very fact that you are still alive proves that it is not especially harmful. Now the thing that you must remember in the event of a lightning strike is to stay clear of all sorts of danger. Do not, we repeat, do not, we repeat, do not, we repeat

Sorry about that, folks, we got caught in a loop. This brings to mind another of my our favourite things to talk/write about. The art of repeating oneself is one that is not very well developed in most humans (which we are). You see, there is a great stigma (as opposed to a great $\Sigma$ ) about it but there is really nothing wrong with people who repeat themselves. Many of the uneducated masses feel that the continuous repetition of a single phrase or sentence is indicative of a greatly suffering mind. We maintain that, far from showing mental deficiency, well-repeated phrases are a trademark of the cultivated intellect ${ }^{\otimes}$. Where would we be without the continuing repetition of such phrases as, Hi! How are you? or How are you? High? or several others, which we could name right now except for the fact that we don't want to.

You must all remember the time that Gary Kullmann came over to our house to play the drums. What would have happened if he had not been allowed to repeat himself? Yes, we agree that the neighbors would have been happier, but the artistic quality of the music would have been very severely damaged. And this principle applies in virtually all walks of life, in every conceivable event, in every waking monument of our lives. What it all boils down to is the ability to stand up on your own hind legs and say, "We will not repeat ourselves. We will not repeat ourselves. We will not repeat ourselves."

Another widespread feeling these days is the feeling of cold. We live in a very affluent age, and a very affluent country, but it still chills right down to the poverty
level in the winter. This, we feel, is not right. The government of Canada, with all its anti-inflation moves, should try to freeze the temperature at a comfortable level, instead of trying to freeze us. No one minds frozen wages and frozen prices as much as frozen bodies. And if Trudeau claims he can't do anything about the weather, then we'll elect someone who can. It's about time that we stood up for our rights.

Now we would like to talk about two albums, both new, one good, one bad. The bad news is the new one from Strawbs, called Deep Cuts. The nicest thing we can say about it is that it's very short. But there are many problems with listening to it. If you are expecting the kind of clear, clean, crisp vocals that usually come out of a Strawbs album, then forget it. What you will hear is a very wobbly voice that has, unlike in the past, no moving lyrics to sing. This voice is accompanied by a screaming, whining guitar, which, to a great degree, doesn't fit the music. We hate to say this, because we loved three or four of the earlier Strawbs works, but this one is not even worthy of the name Strawbs. Reasons? Well, for one thing, instead of having keyboard player John Hawkwen, they have virtually nobody. Three different keyboardists played on Deep Cuts, and it really sounds like it. Secondly, Dave Lambert, who is one of the classiest musicians around right now, did absolutely no writing on the album, sang very little, and played largely electric guitar, as opposed to the wooden one which he plays so well. Our prediction with respect to Strawbs is this: If they can lure a full-time keyboard player into the fold, and if Dave Lambert helps David Cousins with the composing, they will be all right. If not, they might as well hang it up.

The second new album is a Led Zeppelin thing called The Song Remains The Same, which is a live effort, and which has not been released yet, so we can't really tell you about it in any depth. However, you might look for it in the stores, as we will be doing, and next week we'll tell you all about it. Also, the Zeppelin film is opening in Toronto today (Friday) so that might be a possibility for those of you who are interested.

With regard to the Word Of The Week we are sorry that there wasn't one last week, but our typist forgot to put it in the colunm. The Word Of Last Week will appear as the Word Of The Week this week. The word is Murphy's Law, and it goes like this: Anything which can go wrong will go wrong. It also has several corollaries, but you now know what Murphy's Law is, and what the answer to last week's Why is as well. Speaking of why, why hasn't anyone said hello to us at the C\&D? You know that we are always there. Please say hello. We're the little men who work the milk machine.
\$ STEVE \$

## Letters to \$ STEVE \$

Dear mathNEWS,
Whoever \$ Steve \$ is, he is the worst and most misinformed music critic I have ever heard. Last week's Starcastle fiasco was bad enough, but Fripp playing with Peter (I used to live with Peter's drummer)-Egads!
dconroy

## Dear $\$$ STEVES:

In answer to yore kwestion, "Why does bread always fall butter-side-down". This is:
a) Murphy's First Law

Anything that can go wrong, will go wrong;
or
b) Murphy's Second Law If two things can go wrong, the one which will do the most damage is most likely to occur;
c) Murphy's Third Law

Left to themselves, things will go from good to bad;
or
d) Murphy's Fourth Law

Not left to themselves, things will go from bad to worse;
or
e) Murphy's Fifth Law

Mother Nature is a Bitch.
Yours sincerely
Derek

To SSTEVES:
Ah, you typical conditional probabilities, the answer is intuitively obvious!

Murphy's law of the random perversity of inanimate objects!!
It could never be put more succinctly!
typically,
hgacolquhoun
\$ Steve \$:
This is, of course, an application of (Klyn's) Law of Perversity, which states, It will rain if and only if you wash your car, etc., where etc. covers all conceivable situations (such as the one you cite), except where you wash your car (etc.) in order to make it rain (etc.), in which case it won't. This last aspect is the Law of Perverse Perversity.

Although the Law of Perversity is closely related to Murphy's Law, the existence of the Law of Perverse Perversity distinguishes them and they should not be confused.

Mark Brader

mathNEWS welcomes your criticisms, comments, suggestions, etc. All letters should be signed, but if requested, a pen name will be used. Put your Feedback articles in our mailbox on the third floor outside the lounge, or mail it to us on TSS to userid mathNEWS, or take it to MC 3038 and have it put in our mail slot, or put it in the mail addressed to mathNEWS, MC 3038.


Dear ?Steve?,
This is an attempt to answer your Why? question. I am sure that there are many scientifically sound reasons why, but there is also a very simple answer to your Why?

The answer to the question Why is it that whenever you drop a slic: of bread it falls butter-side-ciown? is that people, through years of conditioning, have learned to butter their bread on the correct side. I myself have tried to recondition myself into buttering my bread on the wrong side, because, as you may realize, if you drop the slice after buttering it in that manner, it falls with the butter glaring you in the face, very handy.

There is one small problem however, that being when I take special care to butter my bread incorrectly, I also take care not to drop my bread.

Peter C. Chynoweth

## Humor

Dear mathNEWS,
I, rlbiddle, do hearby declare the following to be the funniest joke I have heard all year:

Q: How do you get an or-bar on a Vucom?

A: You don't. You get an or-bar on a duck.

I tell you this in the fervent hope that you have a keener sense of humor than most of JJBT. Please respond in kind.
R. L. Biddle

I was sorry to hear that that was the funniest joke you heard all year. Maybe you should find some new friends?

Editor

## Miscellanea

Dear Ed (Mad Dog et. al.):
Couple of things to talk about. First things first.

Re Tak'n'Sammy's article, the next in the sequence of QWERT is $Y$, since QWERTY is the second row, starting at the left, of a typewriter keyboard (not to mention being my UNIX password).

Next, some complaints.
I really think you guys could be a bit more original. I am referring to some peoples' penchant for copying the illustrious *hugh*. Namely \$STEVE\$ and \#RAZAMATAZ\#. Surely you can do better.

Also, I object to your spelling of the chevron. It should always be in lower case and in Boldface!!! You guys are slipping.

Other than the first four issues, you're improving. I mean, you can't go anywhere but up....

Bun
While capitalization is part of spelling, typeface isn't. Note that while the Gazette often spells mathNEWS correctly, they never boldface it. If others start to do it to us, we might start to do it to them.

Editor


## Don't panic, just think ... ooh I'm

taking too much time. What if $I$ can't get


Gazette

# After Last Issue's Lead Article, You Need to Ask? 

## Dear mathNEWS,

I have heard rumors that various organizations are trying to take over mathNEWS. Can you confirm or deny these rumors, as we would like to know if we are being sucessful.

gsashby

## mathNEWS unbalanced?

## Dear mathNEWS,

In reading the last two issues of mathNEWS and what might almost be called a special issue of mathNEWS owing to the mathNEWS resources and personnel and Mathsoc money involved in it (The Other Voice), it would appear that mathNEWS has been maximally uncharitable toward the chevron. One might contrast the following set of articles: \{Gary Dryden's article whose tenor is typified by its calling those trying to keep the chevron offices open "Stalinists", the article "Locked Doors Will Stop Them!" which noted in its wisdom that the CUP which supported the chevron didn't know anything about the situation, and J.J. Long's column which suggested suing chevron staffers for producing a special issue) with the administration-run Gazette's articles which noted that Neil Docherty, who J. J. Long was so proud to help fire, is a "keen journalist respected by many media people on campus" and that "the AIA's presence in the chevron has most often been seen in the Feedback or letters section, the part of the paper written by outsiders or by staff members who disagree with the working majority on the paper". It is ironic that while the chevron is being lynched for imbalances long on the decline, its detractors are making traditionally balanced papers like mathNEWS become unbalanced. Maybe it is mathNEWS and not the chevron that needs the strait-jacket of an elected editorial board.
G.W. Setoss

First of all something on CUP. I wrote the article you refered to, although the header was by the other editor, and the reason I said what I did about CUP was because they had made no effort to find out another side to the story. All their information was coming to them from the free chevron staffers. Now a comment on mathNEWS. We never have had any strait-jacket editorial policies and don't want one now. If anyone, mathie or not, wants to contribute to mathNEWS, they are welcome. Just drop them in at the Mathsoc office or bring them to our Tuesday night production meeting.

Editor

## MC 3014

Dear mathNEWS,
This letter is a complaint, which probably shouldn't go to you, but I can't think of anywhere else it should go. I have been trying to use the 3rd floor study room (MC 3014) as intended, for studying, but in the past few weeks it has become increasingly difficult, due to the large number of people who use the room as a place to dump their books, boots, coats, bags, dirty socks, etc. Far be it from me to try to infringe upon anybody's personal rights or territorial imperative, but if these people could perhaps make a tidy pile of their belongings on the floor, instead of spreading them all over every available elevated surface (chairs, tables, windowsills), it would make the situation much better. I realize that there is a shortage of locker space, but surely a better solution can be found.
anon.
To all those culprits who are misusing MC 3014: you have been found out!

To Mathsoc: perhaps you can put up a sign or two indicating that the room is for studying, not for use as a closet.

Editor

## They are Color-Keyed to the Maps on the Walls.

Dear mathNEWS,
How about explaining to us what all those arrows on the second, fifth, and sixth(?) floors are all about?
jwbmacaulay
...continued on page 11

## It's Eattourial Policy

Dear mathNEWS,
In the letter from rssteiner in your last issue, you committed the non forgivable [sic] sin of spelling a word that should [sic] end "our" "or". I think ron steiner should be forced to say $\operatorname{per}(a)+\operatorname{per}(b)=$ $\operatorname{per}(a+b)$ and the appropriate action taken.

Yours SINcerely,
rlbiddle,imr

We lcome to the MASTHEAD!! This is Mad Dog back orice again as editor. You may have noticed that this is officially a Monday issue. This was because we tried once again to do twice as much work as we had time for in $\frac{1}{2}$ the time. This week mathNEWS was put together on Tues. and Wed. by me Mad Dog with help from co-editor Mark Brader plus Eric Siegerman, Ernie Burke, Randall S. McDougall, Catfish Leibman, Alex White (a CSC tramp), John (male) E11is, Johann + DJBurloaf the venerable Prray, Puff Stevens, JJ Long (who ventured into Hackland), Fsxnregnarux (you figure it out), Perry our money man, pckelly and Brad St. Pierre plus anyone i've forgotten. As ususal, I brought along a few changes to the production of mathNEWS (notice the lines?). Random Ramblings... In 75-76 Math had the highest no. of Women in co-op...ESS sent us a copy of ESSNEWS their 1-page newsletter...sam 'n' tak aren't here this week 'cause we lost the article or never got it...it is now 4am wed. and $i$ have to be up at 8!!:.... and for all you non-apathetic types (all 3 of you) National Student Day is coming up on Nov.9...why do people ignore the no smoking signs??... and when can $i$... eh? i'm going nuts:


