

The University of Waterloo Student Chapter
of the Association for Computing Machinery



The Computer Science Club held its first meeting of the term on January 6. About 35 people turned out for the meeting.

Things got underway when J. J. Long jumped to the front of the room and initiated nominations for the position of president of the winter CSC. As soon as the president was elected, he took over and carried out the elections for the other positions in the club. The executive for Winter are as follows:

President: David Buckingham
Vice President: Alex White
Secretary: Fraser Gunn
Treasurer: Sylvia Eng
Program Coordinator*: Mark Niemiec

There had been some confusion about the speaker for the meeting, and it was generally thought he wasn't going to show. As a result, the meeting was adjourned and everyone was standing around talking or eating the donuts when the speaker, who had been asked to show up about 45 minutes late (to allow time for elections) arrived.

We got everyone back into their seats and then the speaker, Professor M. H. Van Emden, gave a talk on Artificial Intelligence. At several points the talk broke into discussions as various people argued about ideas that had been presented. The talk dealt with basic notions such as the fact that because a computer must be told exactly what to do, it is not necessarily "dumb", and the notion of what constitutes machine intelligence.

The lecture ended on a disheartening note. Someone questioned Van Emden about the famous Van Emden sorting algorithm. Up to now, people had been going around with the idea that this sorting algorithm was very good, always managing to closely approach the theoretical limit for comparisons necessary to do the sort. The very foundations of peoples' beliefs and ideals in computing were shaken as Van Emden pointed out that his sort, although economical on array references, actually needs about 40% more compares than originally thought.

The next meeting of the CSC is scheduled for Thursday, January 27, in

MC 5158, at 7:30 PM. The lecturer will be John Wong, who will speak on "Resource Shared Computer Systems".

Meanwhile, the CSC office is located at MC 3037, across the hall from Mathsoc. We have a fairly large library of manuals for IBM, Honeywell and other computer systems, as well as the latest copies of some journals, particularly hobbyist magazines (such as *Byte*). Members may borrow the manuals. The CSC office is a good place to come to if you just want to sit around and talk or listen (Some people have even been known to attempt to finish assignments there). For future meetings, a complete roster of speakers has been lined up. If you wish to join the CSC, come to the office and some executive should be happy to sign you in. Fees are \$1.00 for the term.

*The position of program coordinator was created in the fall. Peter Stevens put a lot of effort into organizing speakers for this term, and decided that his efforts should not go unrewarded. As a result, he created a new executive position and appointed himself to it, gaining the privilege that comes with being an exec. Only later did other members find out what had happened.

THURSDAY, JANUARY 13, 1977
VOLUME XIII, ISSUE 0

math NEWS

The Fall of 1976 The chevron Affair —Need we say more?

...oh, all right.

Here is a short summary of what you missed by not reading **mathNEWS** last term. Antical appeared in September, with no comments. WATSFIC put on OKTOBERKON and managed to get 200 people out. The mathematical theory of big game hunting in the Sahara desert was revealed. **mathNEWS** acquired the capacity to publish photos. Dean Forbes was reappointed. J. G. Kalbfleisch analyzed Antical statistics and "proved" that math students are underworked. The Four-Color Theorem was proved (really!). A huge table-hockey tournament was held. **mathNEWS** published "WATMAP: A Guide to Suicide". The ASN (Association of Society Newsletters) was founded. Kevin Willis won a math-regular fed rep seat in a by-election, and the loser said he was going to launch an upcoming [sic] libel suit against **mathNEWS**.

What's Up in Mathsoc?

There will be another social week of some sort. Pandemonium was the name of the fall week with four societies participating in contests, card nights, pubs, broom ball and the Semi-formal.

Elections will be coming in March for council, President, Vice-president and Treasurer.

If you have some idea of what you want us to do this term, please tell us.

We are in need of executive members: Special Events Director, Orientation Director, Administrator, and Athletics Director.

We need people to sit on our faculty committees: Curriculum and Faculty Council. For more information concerning these positions or if you are interested in joining the team, come to MC 3038 and state your intentions.

Da Stoodint Noospaper

The chevron is a leftist tool of propaganda funded by the International Conspiracy to Pervert and Destroy All We Hold Dear As Western Civilization (the infamous ICPDAWHDAWC).

All students wishing to help in the production of the chevron are more than welcome, and are recipients of paid three-week indoctrination tours to the Subversive Capital of their choice, the Kremlin, Peking or Havana.

In addition to an editor and production manager with dangerously decadent bourgeois tastes, the chevron survives and prospers through an ingenious plan known as volunteer labor, which means that normal, everyday, run-of-the-mill students give a few hours a week to help report, edit, photograph and otherwise abstract the real world around us into a comprehensive and sometimes even nearly-accurate picture of life here at the University of Waterloo.

1973-74 UW Student Handbook

Is this man a member
of the dreaded...
Syndicate
?

If so why is he a
member of this power-
hungry group?

More exposés next
week (If I live).



Foto Courtesy of Rabid Rabbit Studios
A division of Hedgehog International

The Pink Panther Strikes

BURLOAF!

The chevron situation drags on into its fourth month now with the free chevron still going strong and the real chevron still being put out by the Federation of Students, with both papers claiming to be the official student newspaper.

The situation can be confusing, so someone has suggested that a pamphlet for general distribution be made up, entitled "A Campus Guide to Chevrons". Or perhaps, there could be an article in the Gazette called "Know Your Chevrons".

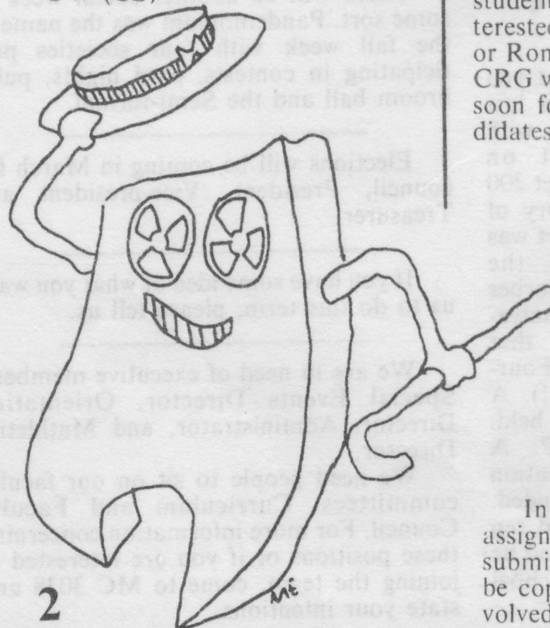
Last year, a want ad appeared under the classification for faulty merchandise. The manufacturer was looking for a buyer for 12,000 fortune cookies. According to the ad, a computer foulup had caused them to be made with air-raid instructions.

The Mathsoc music collection (on records) has been beefed up lately. I don't know who the generous soul was who lent the records, unless Mathsoc requisitioned someone to buy the albums for them. As I see it, there are three ways to destroy a record: [1] Lean it against a very hot radiator, [2] Clean it with a scouring pad, or [3] Lend it to Mathsoc.

Anyway, the music material seems to have improved from last term. Last term, during the day, the stereo spent 95% of the time playing either Burton Cummings/Stand Tall or Garfield/Strange Streets (there was also possibly some Bachmann Turner Overdrive in there too). (It was as if Mathsoc had been subverted by the CRTC.) At night, FM hiss was very popular. Often you could walk into Mathsoc at 2 AM to hear a torrent of hiss, with rare, barely discernible sounds of some music, a dipole antenna stretched between a box of cards and a jar of coffee, and J. J. Long at the controls of the stereo, who would turn to you and say "WBUF's coming in pretty good tonight, eh?"

CSC Speakers for Winter Term

Date	Name	Topic
Jan.28	Wong, John UW (CS)	Resource Shared Computer Systems
Jan. ?	Tsichritzis, D. U. of T.	Data Base
Feb.11	Manning, Eric UW (CS)	Networks
Feb.24	Graham, Wes UW (CS)	History of Com- puting (IBM in the '50s)
Feb. ?	McIlroy, Doug Bell Labs	(To be announced)
Mar. ?	Ritchie, Dennis Bell Labs	UNIX
Mar. 24	Hume, J. N. U. of T.	PPrivacy and Security in Computing
?	Booth, Kelly UW (CS)	Computer Graphics



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FEDERACTION

Welcome to my first column in the real mathNEWS of the term. I wonder about that person who supposedly writes JJJ reports in the free mathNEWS. Is he a communist or a columnist or something like that? Well, maybe someday he'll learn how to write.

This week's hack-of-the-week is none other than Trevor John Thompson. Trevor is considered a loyal Honeywell hack who has helped implement such "neat" things as B on our 6060. A former student of Architecture, he found his real love to be computers, and accordingly joined the Math Faculty a few years ago. Many women consider Trevor to be well qualified in areas not exclusively dealing with Computer Science. His computing and other skills are greatly admired. Trevor serves as an inspiration to, and a source of guidance to, his close friend and comrade the ever-popular Ciaran Gerrard O'Donnell.

I have announced my resignation as Mathsoc Treasurer; the capable Martha Coutts will take over next week. I hope to do other things with Mathsoc such as a Special Events Director. Also I would like to welcome "disco duck" Bruce Mills as Mathsoc Social Director.

I hope you will make an effort to vote in this Thursday's Federation referendum. One should not listen to those people who urge apathy amongst the students. I have my own opinion on the referendum questions; publicly, however, I am recommending to you to vote for the answers that *you* as a student feel that you can support.

In the upcoming presidential and council elections, I intend to involve myself in a larger way. I do not intend to be a candidate myself, but shall support candidates who back the aims and the platform of the Campus Reform Group. The CRG is actively seeking those persons who feel that the Federation should be reformed and return to its original purpose of serving the student. If you or someone you know is interested in membership, please see myself or Ron Hipfner in the Mathsoc office. The CRG will be holding a nominating meeting soon for the purpose of selecting its candidates in the upcoming elections.

JJ Long

20% Zeros

In one first-year computer science assignment last term, some one-fifth of the submissions (in a large set) were found to be copies of other submissions. Those involved were given a grade of 0, of course.

Ludwig von Zopfault —his farewell column

mathNEWS received this (by special delivery from North Bay—70¢ postage!) just after the last issue of last term went to press on December 1—Ed.

After a long absence, I return to the pages of mathNEWS. Fear not, the stay will be brief. But I must relate to you the strange sights I saw this weekend past whilst I was in Waterloo. Specifically, the CSC office.

It's amazing what can be found in the CSC office. Last Saturday, I walked into it, only to be brought up short by a rather fetid stench. It wasn't difficult to trace this to the rather damp towel and (likewise) pair of swimming trunks tacked to the wall. Casting my gaze further about the room, I saw one bookshelf covered with used Styrofoam cups, some slices of apparently stale bread on the bookcase (along with a non-working electric kettle), and a table covered with hot chocolate powder and stains. In one of the desks, there resided another towel, another pair of swimming trunks, and a pair of shoes. The bottom of this drawer was covered with a slimy, gooey mass (I was later informed that this was many-month-old shampoo). Another drawer yielded a non-working bicycle pump. Along with the kettle and the CSC executive, that makes six non-working items in the CSC office. In a paper bag on the floor, yet another towel revealed itself. Assorted footwear and listings were strewn about the floor. A C&D coffee pot stood under the bookshelves—an ersatz kettle, no doubt. Over in one corner was a couch "borrowed" from the Math Lounge. Apparently, a certain hack had decided that this was a more acceptable means of spending the night than crashing at the Campus Centre (or at home). Bad judgement on his part, however. The CSC has had this happen before, and Security has not been amused. Not only that, but the CC chairs are a lot easier to sleep in than the Math Lounge seats.

Later that day, I talked to Peter Raynham (currently on the CSC exec), who informed me that such goings-on were more or less the norm. He also revealed that someone on the CSC exec seemed to have a drinking problem ...not alcohol, I hasten to state, but hot chocolate. So far this term, the CSC exec and sundry visitors have guzzled over \$35.00 of the stuff. This, I am told, is over 9 kg (20 pounds) of uncut Nestlé or equivalent. The mind boggles (as do the kidneys) at the gallonage (litrage just doesn't have the same ring to it [*How about volume?*—Ed.]) involved. The tea and coffee situation is just as fluid, as can be inferred from the sugar consumption to date—over 5 kg of it! Unless the CSC exec eats it raw for its energy content (which is patently absurd, as the entire CSC has less energy than a dead firefly), it must all go into tea and coffee, at a cube a cup or so. You figure it out.

Other goodies unearthed in this under-sized junkyard were some unsold WAT-

SFIC magazines that Mike Dillon was trying to hide so that (I am told) he could hawk them later, various WATMAP card decks left behind by various non-entities (CSC members who couldn't be bothered to get a locker), an old bicycle rat-trap carrier, and enough obsolete listings and Life patterns to reforest half of Ontario. The place was a joke. Between the two of us (Peter and myself), we made a valiant attempt to clean up and delouse the place. Since the present CSC executive is still there, we were only half successful—you guess which half.

Agreed, this sort of "executive privilege" has been around for a while—at least since my days—but never on such a scale. I'd be willing to wager that some terms past, the CSC did nothing for an entire term on less dough than has been spent on hot chocolate this term! Methinks things have gone a little too far.

End of rant. Now, some more welcome news. I can do no better than to quote a former mathNEWS journalist, The Phantom: **I QUIT.**

Yes fans, after too many articles, I have decided to hang up my pen and retire. My much-mentioned but as yet non-writing ghostwriter may yet put in an appearance in this column, but I have decided that any articles I write in future will be for Scisoc—after all, I am in physics. Also, I don't like the way Peat Bog Dillon is handling this rag, though MSBrader doesn't foul things up *too* badly when he edits it. But then, you know how swift Dillon is. Not only is he on the CSC exec, but he was the guy that voted for [*Well, he abstained, anyway—Ed.*] a motion (during a WATSFIC meeting) to throw himself out of the chair, without intending to. However...

And now, as is traditional, the closing **Grooks:**

To the AIA:

If your thoughts
are rubbish merely,
don't express yourself
too clearly.

To the CSC exec:

It is the boast
of modern man
to do at most
the least he can.

To the mysterious ghostwriter:

The unyielding medium's
not merely endured:
It's that upon which
art depends.

For who can perform
on a tightrope secured
at only one
of its ends?

And, finally:

There is
one art,
no more,
no less:
to do
all things
with art-
lessness.

3

WLU 4, UW 2

(ASN)—The Wilfrid Laurier Golden Hawks defeated our Warriors last Wednesday, January 5, by a score of 4-2. It was a penalty-filled contest, with each team receiving twenty penalties, including minors, majors, and game misconducts.

Laurier led after one period of play on a powerplay goal by Greg Ahbe near the end of the period.

The Warriors took over in the second period and were in the lead after goals by Don Langois and Al McKee (birthday goal for Al).

The third period saw the Warriors with penalty problems. Laurier tallied three unanswered goals in the last 7 minutes of play to take the victory. Scorers for the Hawks were Perry Mank and Hugh McIntosh with 2.

To say that the Warriors were hurting would be an understatement. Out with injuries were Eric Brubacher, Jeff Fielding, Dave Jutzi, and Chris Chappell. Also added to the injury list was Doug Mitchell, who received a separated shoulder in the game. Harry Roback and Ken Greene were ejected from the game in the third period for fighting, and the Warriors were left severely handicapped.

John (Soupy) Campbell summed up the Warrior position aptly: "Lack of bench strength showed in the third period." Profound.

Archie Chase agreed, saying: "We were slowing down by the third. They got the breaks, we didn't, and the turnovers hurt. But we will get two wins in Windsor on the weekend." I hope so.

What about fan reaction? One spectator, Pam Christophe, had this to say: "The first period was slow and sloppy. It picked up in the second, and the third was like fights at the gardens."

As a reminder for those people who missed the game, Radio Waterloo carries all home and away Warrior games.

The outstanding Warrior of the game was goalie Bruce Morgan, who played a fine game, perhaps his best this season.

It was a typical Waterloo-Laurier game at the Barn with a lot of penalties and even a few goals.

CONVOCATION DATES

Spring convocation for all graduating Math students (including B.Math, M.Math, M.Phil and Ph.D. students) will be

Friday morning, May 27, 1977

except for those students receiving a B.Math degree in Chartered Accountancy. They will attend the Engineering convocation on

Saturday afternoon, May 28, 1977.

DEAD LINE

Last day to
add winter
courses is
Monday,
JANUARY 17.

WARNING

Sir R.

This week's topic is... the chevron (what else, that's all people talk about these days, and besides, I haven't got my three cents worth in yet). I think it's time to get down to the basic problems. I have no use for this stupid political bickering that's been going on for the past four months or so.

As I see it, the problem is simply the paper that we've been getting out of the chevron offices for the past few years. As we all know, the chevron has been one of the biggest jokes around this campus for quite some time. Very few people around here have been satisfied with the chevron in the past, while serious criticism and disenchantment have been virtually universal. Although this week's "free chevron" claims that the chevron had changed itself for the better in September, it is rather hard to believe that after all this time the chevron suddenly and conveniently reformed itself just a few weeks before its being closed down.

What has been wrong with the chevron? Let's start with ordinary campus news. Do you think that the chevron has done a credible job of just keeping us informed of what's happening on campus? I don't. Its coverage has been very thin, with many important events not being adequately covered.

How about sports news? In the past few

years this university has produced Canadian champions in several areas, notably hockey and basketball. As a matter of fact, interest in basketball on this campus has been almost fanatical, more intense here than elsewhere in Canada. Has the chevron given this adequate coverage? Far from it. Although the chevron reports on all the games, it usually only gives a simple summary. The articles do nothing to cultivate or stimulate the interest of the student body in these events. If 4000 students go to a basketball game, it's a fair guess that these same students would be interested in extensive coverage of the Warriors. Do you think this coverage has been delivered in the past? I hardly think so.

And then there's the chevron's coverage of the individual student societies on campus. This university is in some ways unique in the amount of power that the societies wield. In many cases students come more in contact with their societies than with the federation. But from the chevron you would hardly know that the societies even exist, except when it occasionally attacks them, as it attacked Mathsoc during the summer. Social functions sponsored by the societies abound, yet are rarely mentioned in the chevron.

So what have we've been getting in the chevron instead? Well, we get massive articles on such trivia as: CIA arms support to OMAN in their fight against "liberation fighters", or sterilization programs in Puerto Rico, or Canadian arms sales to United States, or CIA involvement in the Kennedy assassination. Great stuff, eh? Just what I want to read. Yes, I know the statistics that the chevron claims about the

variety of its content, but there's no denying that much of the stuff they publish is of a viewpoint that the majority doesn't care to read, much less pay for.

Now the chance has come to change all that. The referendum on Thursday (this paper may be out by then) is a chance for students to express their discontent with the chevron. So vote! If you don't vote, you won't have the right to complain about the chevron in the future.

The most important question is really number 7: Should the chevron be allowed to return to what it was in September? The answer here must be NO; otherwise, it may be a long time before we get another good chance to change it for the better.

Mind you, the other questions present a problem, such as questions 3 and 4 regarding who publishes and who has editorial control of the paper. Normally I would say the staff (who maintain that the federation should accept the legal responsibilities and foot the bills for the chevron, while they decide themselves how they operate); however, in this case the staff shouldn't be given these responsibilities. Neither should the federation, after the way they bungled the whole thing. The third choice is also bad, as we need to worry about what would happen if a board were elected to control the chevron (i.e. Who would run? Would we know them? Could the staff get control of the board?) This question is a difficult one. I hope some acceptable solution can be found.

There it is. Hopefully this will be out on the day of the referendum. So if you haven't voted yet, then vote. Participate, and maybe we can eventually improve our student paper. This is your chance!

TRONES GARLENE DETRALE GALNIM RATEPOOR SHTING ANTLET FATHERMAT



To our surprise, after we printed two *Gridwords* in our last issue (December 3), we received *no* solutions to either one! Nevertheless, here are the correct solutions.

This week? We just discovered that we don't have a *Gridword*, so instead we present a Richard-Needham-*(The Globe and Mail)*-style anagram-acrostic-anagram puzzle by (alphabetically) Mark Brader, Mike Dillon, Dennis Mullin, and Richard Needham.

Unscramble each word in the headline, take the initial letter of each, unscramble these, and produce the name of a well-known place in North America. The solution you send in must include all the unscrambled words.

by Michael Fine

POEPHAGOUS: O
ORB: ENO: DOER
MA: ANKLEBONE
OTC: SHILF: D:
NOR: D: AIRY: C
AROMA: RX: : PI
: : WASHDISH: S
MASSHIERON: S
EONS: GR: A: SO
DUE: THY: KIKI
ADSORB: FADED
LATHYOREGON:
: D: M: YODELER

ISO
NUM
JII
ETC
INCERTS
SITDOWN
*DOLT*NI*NM
*ROM*IA*GROUP
*HOMOMORPHISM*A
DIFFERENTIATIONS*
DIN*F*PS*INTEGRATER
EN*I*HOOFS*SNORES
SINAIS*I*A**NCR
*GASP*CAN*HIS
S*MHOIC*HIC
*SEMANTIC
RILE
EN*SO
OEC
USA
SSR

by Pete Schneider

NAME _____
BEEN THERE? _____

WARNING: No Food or Refreshments to be Consumed in this Trob

Well, once again, everybody's favorite newspaper brings you the assorted ramblings of the famous (that is spelled with a u!) Trob. After a longish absence, I have returned to avenge and correct (or whatever it is that I do...).

Moving right along, I have a lot of material for this week, so here goes:

Firstly, old business: last term's ALGORITHM_OF_THE_WEEK. The problem was to be solved by an APL "one-liner" to remove duplicated lines from a matrix. The one "double" solution received was correct. It also met the unstated conditions that the result should contain one copy of every line; also, if it was not already sorted (i.e. identical lines were not adjacent) it was to be left in its original order.

Anyway, this week's ALGORITHM_OF_THE_WEEK is Iverson's APL one-liner for primes. Its operation is not obvious, nor core-efficient, but the combination of conciseness (??) and subtlety is noteworthy.

... algorithm goes here ...



There are signs in MC 3065 and 3067 (the Teleray rooms) which say "No food or refreshments to be consumed in this room". It has been pointed out that this does not prohibit eating or drinking. Nor does it prohibit spilling, throwing, regurgitating, or pouring food or drink in through the funny holes in the sides of the Telerays...

Meanwhile, we have SIX (!) COMPUTER_OF_THE_WEEKs.

Specifically, the six IBM 5100's owned by the university. For those who don't know, the 5100 is a desk-top computer with a built-in CRT display and the buyer's choice of APL and/or BASIC. A printer, floppy disk, and mag-tape cassettes are available.

There are two disadvantages, however. Firstly, for those who would love their own system, prices start at about \$10K, and go up rapidly to as much as \$30K. Secondly, for those who would like to use those belonging to the university: they're in Brazil. That's right, Brazil. The place where Food Services's 20¢ coffee comes from. Brazil. *Phoey.*

BBBBBBBBBBBBBBBB

Also in computer news:

There is a row of six 3340 disk drives hiding in a back corner of the pit. These units, which use the "Winchester" sealed data module, are in addition to the assorted 3330s and 2314s previously installed (some of which have been upgraded, modernized, or replaced ...).

[1]

$\nabla A \leftarrow \text{PRIMES } B ; C$
 $A \leftarrow (2=0+. =C \circ . | C) / C \leftarrow 1 B$

NOPE, IT'S OVER HERE:

THE AFRICAN KILLER BEES ARE COMING!

In reference to last summer's argument over proper designation for the largest "box" in the pit; it is, properly speaking, a 2075 Central Processing Unit with various peripherals. So there!

And a word about WIDJET and CS 150, too. Officially, each student can get about six hours per week of access. Comments from last term indicate that (a) little new material will be introduced in this course (i.e. G4 (remember it?) was more sophisticated and yet simpler than WATIAC ...) and (b) six hours per week on WIDJET is not enough.

For instance, even with the new (antique, replaces recent, therefore new) flaky hardware (printer by Gutenberg; card-reader (which breaks down as soon as the operator leaves) by Jaquard), Debug is faster. Time to complete today's assignment (coding twice, three runs with errors, fixing card-reader and three final runs) was 38 minutes. Dearchiving on WIDJET, if you can find a free terminal, can take longer.

The Trob was under cover this week, too. In a pair of daring escapades, he infiltrated the second-year electrical engineering class, managing to disguise his brilliance sufficiently to pass for a jineer, a performance truly worthy of an Academy Award. He also paid a visit to the fabled "free chevron".

The chevron staff are obviously working hard, eager to make friends among us common students, and not nearly so violent and vicious as they seem in print. No, Virginia, there is no great troll or boogie-man in the chevron office who will eat you alive if you aren't careful.

With this in mind, I shall restrain myself from any vicious personal diatribes against the staff. I must, however, comment on their stated opinions.

For instance, while disclaiming any organized involvement in the recall of Shane Roberts as Federation president, they continue to use their self-generated personal hatred for propaganda, referring to today's referendum as the "Shane Roberts Referendum". An article in this week's "boycott" issue leads one to pick between two possibilities: (a) the clumsy and ambiguous grammar resorted to for a slight propaganda advantage suggests that the "chevrics" are not qualified to run a newspaper, or (b) the decision has already been made, in some back room, by the AIA or somebody, to remove Dave McLellan from his temporary position as Federation president.

The actions of the CUP in this matter, expelling P. Burton from their workshops and congratulating the chevron on the "victory" in recalling Roberts, indicate that the CUP has a distorted view of the situation. It is extremely tempting to conclude that this is not their fault; the situation has most probably been misrepresented to them by the chevron itself. For instance, can a staff which still produces a newspaper be on strike? If not, can a person be blackballed as a scab for violating the non-existent strike? Can an informed CUP congratulate the chevron on a "victory" from which it chos to dissociate itself?

That said, on with the column.

You are reading this in the tallest building on campus. But you thought... Well, the persistent myth about the Arts Library was finally destroyed last week by the discovery, in one of the biology buildings, of an enormous inverter gate. We've all been looking through it at a very deep hole!

Some systems development people at the IBM Lab in Toronto were recently overheard congratulating themselves. They had finally developed a system they could make go up and down "like a yoyo"! Suggested names: OS, DOS, MVS, VM, ...

Datamation magazine reports that the Cray-I "may" be the first official "Class VI" machine. This means it can perform 20 to 60 times-ten-to-the-umpteenth operations per second.

In an unprecedented show of strength, a subset of Mathsoc's "RISK Playing Club" last week unloaded C&D's new freezer from a truck to the loading dock. At this point it was discovered that it could not be gotten up the stairs to the lounge, and it was returned to the truck. (It has been suggested that the only way to get this freezer into the lounge would be by hoisting it in through the balcony windows—this has not been ruled out.) The truck left with a significant list to starboard, but there was no fear that it would tip over. The driver (RAG) sits on the left, you see.

Finally, a report on the major crime of the fall '76 term: the hack room was stolen! That's right, folks, stolen. It seems some person or persons unknown snuck (*sneaked?*) onto the fourth floor in the dead of night and made off with the lair of the hacks. The room was later found abandoned on the third floor (apparently, the thief had as much trouble getting it downstairs as Mathsoc had with the infamous freezer (see above)).

While the room was found to be virtually intact, at last word MFCF was still negotiating the return of the three hacks who were in the room at the time. An unconfirmed report is that the abductors have offered three disk drives and the hardware needed to run the MC 3018 Volker-Craigs at 1200 baud. Stay tuned for further word on this unfolding drama...

mathNEWS will print your ads free of charge. Just jot them down on a piece of paper and put it in our mailbox on the third floor 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 mathNEWS, MC 3038, or send them in the mail subsystem on TSS to userid mathNEWS.

I'm interested in talking to anyone with experience in double system, one pulse per frame, digital sound sync systems or equipment for Super 8 films. Mail jkthompson on TSS, or MC 3035.

Lost: A green binder with notes. Please return to Mathsoc office, MC 3038.

Wanted: A desk for next term. Call Brian 885-4411.

Furnished private room available in condominium on University Ave. shared by female students. Appliances include stove, fridge, dishwasher, clothes washer and dryer. Utilities included except phone and cable. Further information phone Maureen 886-0466.

Wanted: One phonebooth any condition. Will pay top dollar. Payphone not necessary. Reply through mathNEWS.

Campus Reform Group

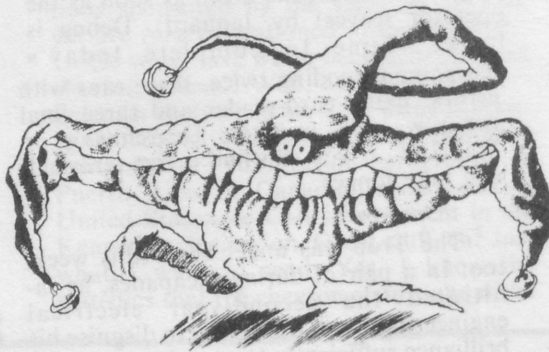
At this point in time UW students are faced with ever-increasing difficulties in trying to obtain an education. We are beset with financial difficulties (tuition fee hikes, OSAP regulations), decreasing quality (spending cutbacks, bad profs), difficulties in finding housing due to discrimination, and myriad other problems. The Federation of Students is supposed to be helping students out of this dilemma but seems to be unable to operate effectively.

The Campus Reform Group is a group of students concerned about the lack of direction and unity in the Federation of Students. Our aims are to return the energies of the Federation to its purpose of existence, that of serving the students of the University of Waterloo.

To this end, the CRG is recruiting students-at-large and student councillors in order to put forth legislation and study problems in the effort to pursue a more responsible, responsive and active student government.

One of our basic premises is "Students Working For Students". By this we mean that students should have some direct input into the Federation through such things as study groups and forums on particular issues of concern. The findings of these bodies could be presented to the Students' Council for action.

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.



If you want to find out more information about the CRG or wish to join us in discovering solutions to the problems that we, as students, face, then talk with one of your Math reps on Fed council.

Campus Reform Group

IBM 360 Defended

Dear mathNEWS,

Regarding CS PULSE (November 26): "that the /360 assembler language naturally includes all necessary machine-level language concepts is patently false."

Omitting the word "naturally", the author seems to be saying the /360 does not include all necessary machine level concepts.

This is patently false. That a supposedly perfect machine, WATIAC, can be simulated on the IBM 360 attests to this. I will admit that the machine does not include all machine-level concepts—but it includes all necessary ones.

For example:

□ Indirection can be performed with a series of LR's.

□ The repeat instruction can be done with a subroutine (see below).

It is wonderful indeed that the WATIAC system was first coded in COBOL (and may still be). But I defy anyone to write a COBOL compiler, or even WATMAP, in WATIAC (or WATMAP).

Sample Subroutine

This subroutine repeats the 6-byte instruction following the call to the subroutine a number of times, the number being specified in r1; the subroutine is called by BAL 14,RPT6

```
RPT6 MVC *+14(6),O(R14) MOVE
INS.
S R1,=F'I' WHILE
R1>0 DO
BNH 6(R14)
DC XL6'00' EXECUTE
INSTRUC-
TION
B RPT6+6 END
WHILE
```

(It is assumed that the condition code not be preserved.)

Jonathan Harris

(Continued from page 13) This Thursday-the-13th issue is also the first in volume thirteen, and there were thirteen signatories on the MC 3011 blackboard. They were: BUN mills, TROB alias dwiglet, ERIC K SIEGERMAN, TOM KEITH in a cast, J J LONG, SIR R, BOFF & BFRED, and (via postes-CANADApost) LUDWIG von ZOPFAULT departing... and The Syndicate! For as we move into our fifth year of publication we have five editors. They are the five mentioned in the last masthead... and then DENNIS J MULLIN. Now there were other useful people who didn't sign our list, like the burloaf PETER R RAYNHAM our CSC reporter, and profs FRANK W TOMPA who wrote most of the second sentence in one article & PETER J PONZO whose information was used despite numerous errors (it's mathNEWS!), and finally the FEDERATION, the FREE CHEVRON, the REAL CHEVRON, the AIA, the CRG, and the CUP for providing so much material for us. mathNEWS is financed by, but independent of, Mathsoc. It's textedited on the Honeywell 6060 (which was to have been promoted to a 66/60 just before Xmas--MFCF is still hopeful) and phototypeset on the attached Photon Econosetter, then cut-and-taped in MC 3011...this issue is our 109th, and it will have 1200 copies...Graphic Services reproduces them by offset printing. It's 6:42 Wednesday morning and no trace of sunrise yet, although the storm at least has passed... there are four of us (trobt&tk&me&djm) still up. This masthead may never get printed, if BUN returns as promised with his article, which will shrink it, which is good, for I'm running out of things to say--What order do you read the pages of your mathNEWS in (if you read it)? BE SURE TO VOTE IN THE chevron REFERENDUM! Contd on p 13