

## THE SENSUOUS LOCK by "R"



For any of you out there who weren't quick enough to notice, the lockers on the third floor were vacant for a short period at the beginning of the week.... This situation was quickly remedied Tuesday morning between the hours of ten and one. Despite long, hopeful line-ups from the front of the Lounge back to the elevators (from about 8 a.m. onwards), there was a time around noon when it was difficult to give lockers away, so any complainers out there who refused to skip their first class to stay in line for a few hours have no excuse. This past term, lockers were not handled as well as they should have been.... no one knew when they were being changed, or reassigned, mostly due to people's natural tendency to be strange; it was a truly enlightening experience....

Among the more ordinary things found were: a pair of slippers, a bottle of Halo shampoo, a combination lock, a beer bottle

opener, a crushed cookie box complete with crushed cookies, a Playboy, a Penthouse, and about a dozen TIME magazines, various GPSS, APL, QED and ROFF manuals, an umbrella and a bar of soap (with soap container), an anti-cal, an October issue of the Chevron, a few Gazettes and a Globe and Mail, a year old student card, the general index for every Honeybun manual ever scraped together, a PDP-11 assembler written in PL/1, a bag of potato chips and a bag of candles (they were still fresh, too), a Chinese-English dictionary, the complete statistics for Burnt Island (1972), a German-Korean dictionary, and a note telling us that we should be more polite about telling people to clear out next time.... If you recognize any of it, you may be able to claim it from Mathsoc MC3038, if not, well... better luck next term....

ISSUE 4.1  
FRIDAY, JANUARY 18, 1974

# math NEWS

## computer science club USER'S GUIDE

**0. Introduction:** The University of Waterloo Computer Science Club is a club run for and by students. It is sponsored by Mathsoc, is a Student Chapter of the Association for Computing Machinery, and exists to help further the education of those interested in computer science.

Membership is open to all students at the University of Waterloo, and dues are \$.25 per term. The club had 74 members during the fall term 1973, and hopes to increase to 100 this term. All meetings and trips are open to anyone.

To join, or for more information, please contact Jim Parry, MC 3013A, 885-1211 Ext. 2337.

**1. Executive:** The Computer Science Club has an executive of three members: a president, a vice-president, and a secretary/treasurer. All three are elected at the start of each academic term, and serve for one term. The executive for the fall term 1973 was: Jim Parry (president), Ray Walden (vice-president), Mario Festival (secretary) and Slavko Stemberger

(treasurer). The club also has a faculty advisor, Dr. W.M. Gentleman.

Members of the club also help run it. There are normally several volunteer positions, such as publicity, coffee & donuts, and projects.

**2. Account Numbers:** The Computer Science Club has account numbers on all of the major computer systems on campus. Any member may use these account numbers.

On the Honeywell, each club member is entitled to his own personal account number, with up to 36 blocks of file space on top of any he receives for courses.

On the Computing Centre equipment, the club has general purpose account numbers for Hasp (batch, WITS & debug - 1), APL (3 numbers, and a public library), Wylbur (3 sets of initials), ATS (1), and VM (1).

To find out more about any of these, see the club executive.

**3. Library:** The Computer Science Club has  
(cont'd on next page)

## DROP & ADD GAME

This is a reminder that the deadline for adding courses this term is next Friday, January 25. The last day for dropping courses is Monday, March 4.

(CLUB, cont'd from front page)

a library, which is open for reference to anyone. Members may borrow library articles overnight, or for a few days. The library is split into three sections: manuals, papers, and reference cards. Holdings listings are kept in the Honeywell files "JPARRY/CSCLIB", "JPARRY/CSCLIB-p" and "JPARRY/CSCLIB-c" respectively. The library is kept in Jim Parry's office, MC 3013A, and he is normally in for sure between 10:30 and 15:30, Monday to Friday.

At the start of the winter term 1974, the library contained 183 manuals, 36 papers, and 26 reference cards. These include an almost complete set of Honeywell Series 6000 manuals, a complete set of IBM/VM/370 manuals, a fair set of IBM/360 and Honeywell minicomputer manuals, several interesting articles on computer chess, computer networks and structured programming; and a fair set of manuals and papers on the Multics computer system.

**4. Meetings:** The Computer Science Club meets approximately once a week, at least five times a term. The meetings during the winter term 1974 will be predominantly on Thursday evenings. Most meetings have coffee & donuts supplied free of charge (they add to the atmosphere). All meetings are open to anyone, and there is never any admission charge.

Each meeting has a guest lecturer or film, hopefully on a topic relevant and interesting to most members. Meeting notices are posted at least one week in advance. The club has a bulletin board on the second floor of the Math building, just outside of MC 2066. Posters are also put up on the Mathsoc board, the AA&CS departmental board, the MFCF board, and on the door of MC 3013A.

The club occasionally takes trips, to tour various places, on an average of one per term. The trips are free, and open to everyone, although club members have precedence if there is not enough room for everyone to go.

Lectures in the past have included Dr. E.G. Manning (AA&CS, UoW) on Computer Networks, Dr. W.M. Gentleman (AA&CS, UoW) on Altran, Dr. J.G. Linders (AA&CS, UoW) on Programming Languages, Mr. Glen Johnson (CACI) on Simscript, Mr. Wayne Langley (IBM) on the History of Computers, and many others. Films seen in the past include the power of parallel processing, "The Emmet computer", and the "L6" movies. Trips taken in the past have been to such places as the IBM Toronto Data Centre and Customer Training Centre, the Dataline service bureau in Toronto, the Bank of Nova Scotia Computing Centre in Toronto, and the CDC factory in Streetsville.

Anyone, member or not, may submit suggestions for lectures or trips to the club executive. Funds may be made available to bring in distinguished personalities or to make trips to distant places (50+ miles), so don't be afraid to make suggestions.

**5. Mailing List:** The club has started a mailing list. One does not have to be a member to be on it, and it is intended for

those students on off campus terms. Everyone on the list will receive notices of all meetings, as well as any general information deemed fit to mail from time to time. Contact the club executive for more information.

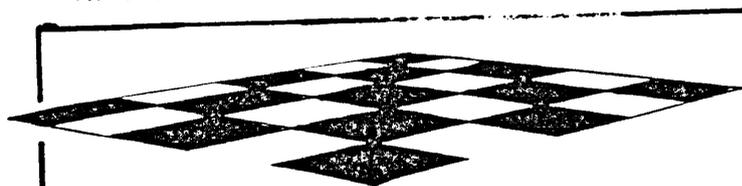
**6. Plans for this term:** Several activities have been planned already for this term. They include the following:

-Tues. Jan. 22 at 19:30 in EL 107 & EL 108 showing of four video films on the Multics computer system: "The Birth of Computers--ACM", "The Multics System", "Multics Hardware", and "Shaping the Multics Environment".

-Thurs. Jan. 24 at 19:30 in EL 107 & EL 108 showing of four more Multics video films: "Multics File System", "Multics Virtual Memory", "Multics Resource Management", and "The Multics Security and File Protection Mechanism".

-Thurs. Jan. 31 at 19:30 in MC 5158 Dr. D. Tsichritzis, associate professor of computer science at the University of Toronto, to talk on "Software Reliability in Operating Systems".

-There also exists the possibility of a trip to the University of Western Ontario in mid-February to see what they are doing in the field of artificial intelligence.



## CHESS TOURNEY

In just a short time the MathSoc is holding a chess tournament. The tourney will be held on the 28th and 29th of January at the beginning of Math week. It will be Swiss style matches and there will be a total of ten winners.

One of the more unusual participants will be the Honeywell. The Bun will be trying to improve its record (it lost miserably in the last tournament).

## TEACHING CAREERS

For anyone considering a teaching career, the Career Planning and Placement Centre has announced two upcoming career information talks. For those interested in the Faculty of Education, Queen's University, a representative from that university will be speaking on Tuesday, January 22 at 3:30 p.m. in Physics 150. On the following Tuesday, January 29 at the same time and place, information can be had concerning Althouse College of Education, University of Western Ontario. For further information phone extension 3675.

# FULLDUPLEX

## by ludwig van zopfault

After the great GMAP fiasco of last winter, the powers that be decided that something must be done about slow turnaround, lack of qualified consulting (the tutors couldn't be bothered to learn GMAP), and the ensuing barrage of complaints from students and faculty. The result was WATMAP.

WATMAP is the assembler for the WATIAC, an imaginary machine along the lines of SPECTRE. The WATMAP book (part 1) has just arrived at the bookstore, and from the cursory examination that this writer has made, it appears that the cure may be worse than the disease.

The WATIAC architecture appears to be the intersection of a lobotomized H6050 and a PDP11, with a few droppings from SYSTEM/360. The assembler and interpreter are both written in COBOL (in an effort to achieve portability) and, rumour has it, the whole job was done without so much as a single GOTO (more on GOTO's later). One of our correspondents reports overhearing a conversation between two of the WATMAP bigwigs to the effect that the entire system will have to be recoded in assembly language immediately, since the COBOL version is too inefficient to be used as a production program on the already heavily overloaded DEBUG terminal. Until the conversion is done we can expect worse turnaround than ever at DEBUG.

Meanwhile, all the math132 tutors are madly running around in DEBUG getting a crash course in the use of the system. It looks like they have their work cut out for them, since most math132 students won't be able to tell the difference between their errors and the bugs in the system (like the multiply instruction doesn't work). This writer has heard that the student hired to find bugs in the WATIAC/WATMAP system is having no trouble at all doing his job.

All in all, it looks like we have another term of long lineups and dissatisfied students ahead of us.

On a lighter note, this week we have a few fun things to do with the 'bun. The terminal checkout subsystem seems rather interesting. To use it, just type "terminal test" at the "SYSTEM?" level. The honeybun is very big on games this term with tictactoe and spacewar joining the old standbys (lunar lander, nim, blackjack, etc.). To play tictactoe type "qed tictactoe" in response to "SYSTEM?". For spacewar type "basic" at the system level and then "lib spacewar" (spacewar only works between 22:00hrs and 10:00hrs).

Some qed things:

uf j0m'040'010

On an LSI (or any terminal with a bell) try:

uf j0m'007

Rumour has it that the Computing Centre was considering the purchase of a Xerox Sigma series computer, in order to decrease the load on the DEBUG service. Rumour also has it that they rejected the idea out of hand. Another rumour floating around is that the MFCF is going to order (or has already ordered) another core box (64k). If so, much of the current core problems would be alleviated. Other hardware on the way includes a mass store link (whatever that is), and another disk drive.

Late last December the cops closed down the games room in the campus centre because of the evil pinball machines (in the law's eyes a pinball machine is a slot machine, which makes the campus centre a "common gaming house" tsk. tsk.). This writer believes he has found a solution to the problem of seizure of pinball machines. The criminal code states that during a raid of a "common gaming house" anything may be seized except telephones and other instruments of communication. So, all that need be done is to install a telephone in each of the pinball machines so that the cops can't take them away. (This approach to problem-solving is commonly known as Yankee ingenuity.)

As we all know the use of the GOTO statement in computer programs is frowned upon by many computer scientists. Unfortunately, there are some things which can't be done without GOTOs in FORTRAN. A recent proposal for changes to the FORTRAN language that would eliminate the GOTO altogether is therefore received with great enthusiasm. In order to eliminate GOTOs, we need only add one new statement to the language: the COME FROM statement. The COME FROM is used as follows:

```

.
.
.
3  CONTINUE
.
.
.
COME FROM 3
.
.
.
STOP
END

```

When the statement labeled 3 is reached, control immediately transfers to the statement following the COME FROM statement. Analogously we can define the assigned COME FROM and the computed COME FROM. We leave it to the reader to discover the many uses and advantages of this significant contribution to the development of FORTRAN.

```

*MBI*S/¢/R /B0!B1*DB01
S/)))/JFB(BLANKS)S1/ //B0
S/://JFK#B#S/..*//NZL B0¢S1/://(BLANKS)UZ
S1/: /:/ S/://JTS/¢/(BLANKS)
S/(/(JFB(BLANKS)S/.$/ &/B0 .NYA
NX=YJT+1I

```



THIS  
Σ  
WEEK'S  
THEOREM

Given: Quadrilateral ABCD, with sides AB = CD.

Required: Prove that AD is parallel to BC.

Construction: Draw the perpendiculars of AD and BC. If they are parallel, then the theorem is proved. If not, let them meet at U, which will be either outside the quadrilateral (i), or inside (ii).

Proof: The perpendicular bisector of a line is the locus of points which are equidistant from both ends.

$$UA = UD \\ UB = UC$$

compare triangles OAB, ODC

$$\begin{aligned} OA &= OD && \text{(proved)} \\ OB &= OC && \text{(proved)} \\ AB &= DC && \text{(given)} \\ \therefore \triangle OAB &\cong \triangle ODC && \text{(SSS)} \\ \therefore \angle OAB &= \angle ODC \end{aligned}$$

also, by isosceles triangles,

$$\angle OAD = \angle ODA \quad (OA=OD)$$

hence, by subtraction (i) or addition (ii)

$$\angle BAD = \angle CDA$$

similarly

$$\begin{aligned} \angle OBA &= \angle OCD && (\triangle OAB \cong \triangle ODC) \\ \angle OBC &= \angle OCB && (OB=OC) \end{aligned}$$

hence by addition

$$\angle ABC = \angle DCB$$

thus

$$\angle BAD + \angle ABC = \angle CDA + \angle DCB$$

but the sum of these angles = 4 right angles, because they are the angles of quadrilateral ABCD. Hence

$$\angle BAD + \angle ABC = 2 \text{ right } \angle \text{'s}$$

also, these are interior  $\angle$ 's for lines AD, BC, with transversal AB. Thus AD is parallel to BC.

- DUD -

# math NEWS BUDGET REPORT

In the math society budget, approved on Oct. 2 of last year, \$1500 of the \$11,000 available was allotted for mathNEWS. On Nov. 27 mathNEWS was granted a further \$236.61 left over from the Orientation budget bringing the total to \$1736.71. Of this \$767.80 was spent by mathNEWS last term.

Here is a breakdown of expenses:  
 Printing costs....\$666.80  
 Prizes(20 T-Shirts).\$9.00  
 Food.....\$43.50  
 Supplies.....\$48.50  
 Total.....\$767.80

## COBOL

(Note: The following was submitted anonymously to mathNEWS last term.)

### A COBOL PROGRAM FOR MATHNEWS PROCEDURE DIVISION.

```
OPEN INPUT STUDENT-OPINION
OUTPUT DECISION-OF-THE-DIRECTORS.
COMPUTE BEST-METHOD-TO-LEARN-
PROGRAMMING = TRY-AND-ERROR.
IF TESTING-TIME IS GREATER THAN TWO-
HOURS GO TO HELL ELSE GO TO NEW-
IMPROVEMENT.
```

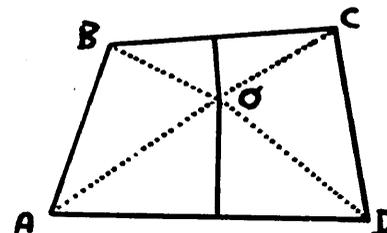
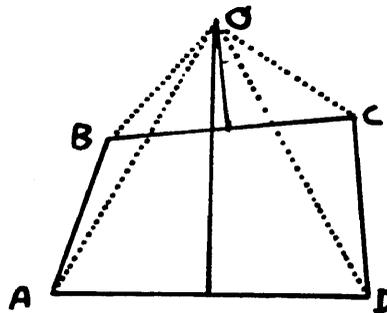
HELL.

```
MOVE 370-168 TO 370-145.
MOVE 370-158 TO 360-75.
WRITE DECISION-OF-THE-DIRECTORS FROM
COMPUTER-SUGGESTIONS.
STOP RUN.
```

NEW-IMPROVEMENT.

```
COMPUTE BUFFERS-FOR-DEBUG-TERMINAL =
PRESENT-BUFFER X 2.
CLOSE STUDENT-OPINION DECISION-OF-
THE-DIRECTORS.
STOP RUN.
```

```
INPUT CARD= WE NEED (A) NEW SYSTEM(S).
OUTPUT FROM COMPUTER=
" YOU GUYS ARE DAMN RIGHT. DON'T
BLAME ME. I FEEL I'M TOO OLD, I WISH
TO RETIRE AND I THINK MY SON 370-168
CAN HELP PROPERLY."
```



### Corollary:

From this theorem, Clearly, it follows that:

All ellipses are circles.

The proof is left to the reader.

# math ETICS

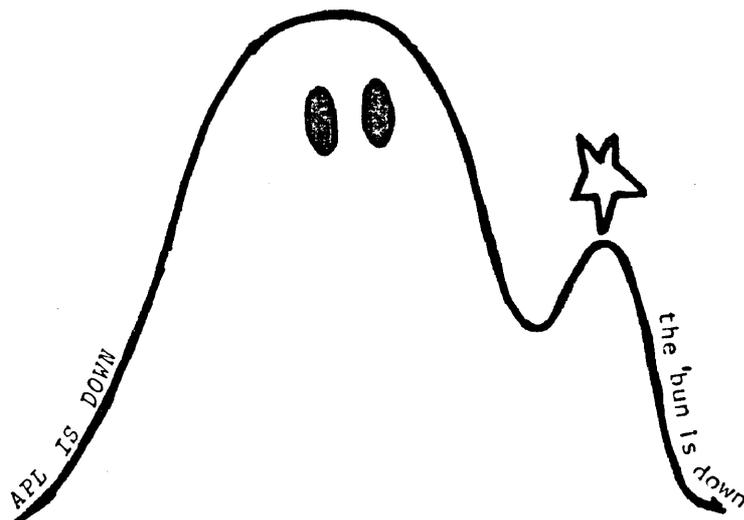
Mathletics will soon be under way for another term.

mathNEWS wants to report your team's activities, but we need your help. If you are on any mathletics team why not take the time to have your team captain (or any other team member) report summaries of events to us. Just give us the facts and we'll write it up (i.e. scores, scorers, outstanding plays, outstanding players,

league standings, any other highlights).

Let us announce upcoming games. See your name in print.

Drop particulars in the mathNEWS file, M&C 3038 or use the campus mail, addressed: mathNEWS, M&C3038, or drop into M&C 3011 Tuesday nights. Our weekly deadline for each Friday's issue is the preceding Tuesday at 4:30 pm.



## the phantom reports

Some of you may remember the APL update we were expecting during the summer: well, rumour has it that it will be running on Sunday on a trial and error basis, probably mostly error. If you thought it was last Sunday you're in good company (and wrong). At this time the information is that we still won't have all the modules we should have (that's right, we don't get the Kitchen sink this time). At any rate, it's probably just as well, since we probably couldn't fit it on the /44.

We finally have 18 terminals sitting in the APL room, not necessarily working, but at least sitting there... It would be nice if that was all the operator's terminal did; as it is, it has developed a most annoying habit of sending line-noise which unlocks it. For those who don't know, if the OPR's terminal isn't locked you can't sign on (or sign off either). For

those in the know, it has been a rough week for running down stairs and kicking on the door of the 'Red Room' to tell them what's wrong (maybe some day soon they'll catch on)...

We've also heard some things about Honey(Funny?)apple, like it is supposed to be ready for the summer and if they get a bug fixed each hour, it'll be useable for the summer... of '84 (that's 2084).

TO THE S.S.: Too bad about the spying.

TO MSHIELDS: Finally got a userid, eh?

TO THE PHANTOM FROM HIS GHOSTWRITER:  
Indeed.

## YAFI

Once again, it is "How To Send Us A Message" time (written so even YOU can understand it).

- 1) goto M&C 3013
- 2) find a terminal
- 3) turn power "on" (switch on right hand side)
- 4) sign on (instructions are on the blackboard)
- 5) type "mail mathnoos" in reply to "SYSTEM?"
- 6) enter your message
- 7) enter a blank line to end and send the message
- 8) reply "logo" to "SYSTEM?"
- 9) turn power "off"
- 10) clean up your mess

Here's an example:

```
(carriage return)
114101
WATERLOO 6050 01/15/74 20:22 3370, 23 USERS
USER ID --janpublic
PASSWORD--*****
(current news prints out)
SYSTEM? mail mathnoos
.I think you people are crazy, and
.I'll never read your rag again!
.
message sent
002 mathnoos 20.627 01/15/74
SYSTEM? logo
```

See how easy it is! With just a bit of practice you'll be sending messages like a pro. And remember: we ENJOY hearing from you...

## mathweek strikes again PINK AMBROSIA

The week of January 28 to February 3 has been set for the Math Society's version of math week for the winter term. What follows is a run-down of the week's activities. Further information can be found in the MATHsoc office (mc3038), extension 2324.

### Mon. Jan. 28

Duplicate Bridge Tourney - 7:30 pm -- third floor math lounge.

Chess Tournament -- starts 10:00 a.m.

### Tues. Jan. 29

Chess finals, trophies & prizes awarded in evening.

### Wed. Jan. 30

Pub -- Leigh Ashford, Campus Centre 8:00 P.M.

### Thurs. Jan. 31

Cross Country ski trip to Barrie -- busses leave 8:00 a.m.

\$2.00 -- Mathies

\$4.00 -- Others

Equipment provided.

Pub -- Leigh Ashford, Campus Centre 8:00 p.m.

### Fri. Feb. 1

Pub -- Mackenzie, Campus Centre 8:00 p.m.

### Sat. Feb. 2

Semi-formal -- Pink Ambrosia, at Valhalla Inn (ballroom). Dining & Dancing to the Don Pond Show. Bar opens at 6 p.m. Dinner served at 7. Tickets available at MATHsoc for \$7.00 per couple.

## WANTED!!

## DEAD OR ALIVE

### PAST COPIES OF MATHNEWS

We require as many copies of past issues as we can possibly obtain. If you have any old issues that we could have would you please drop them off in the mathNEWS file in the MathSoc Office MC3038.

## FREE

NOTICE: A free T-shirt will be awarded to the person submitting an original gridword which mathNEWS uses for publication. To submit your gridword, drop it in the mathNEWS file in MC3038 or use the campus mail (a free service) and mail it to mathNEWS, MC3038.

## while rome burns...

## MATHSOC MEETS

From the depths of aimless chatter and babble, an integral part of math society sessions, the major issues to be settled by council at this past Tuesday's meeting soon became apparent- what flavour of doughnut to choose, and later- who should have the pleasure of adjourning the meeting.

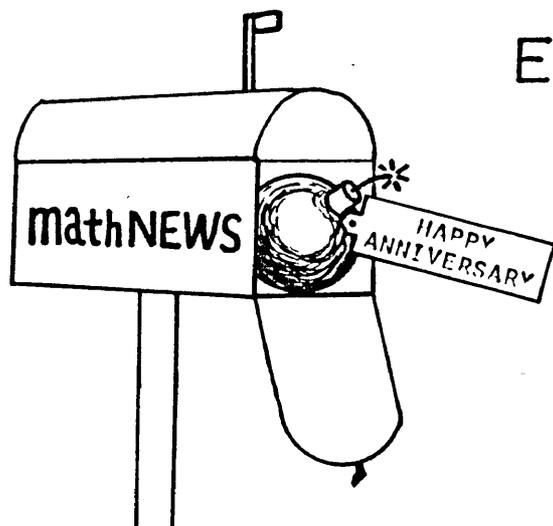
In other issues of import, treasurer Rosemary van den Akker gave a detailed budget report dated Jan. 15 outlining expenses for last term. Mathsoc presently shows a bank balance of \$6195.33. It is interesting to note that the social budget of \$2000 still has a balance of \$1957.91 with profits of \$1863 having been made on social events last term.

David McMaster social director gave details of math week to transpire Jan. 28 to Feb. 3 (details appear elsewhere in this issue). McMaster noted the return of a semi-formal (dubbed Pink Ambrosia) to be held Feb. 2. The event is to be subsidized by mathsoc, the Math Faculty and the Federation of Students. At a cost of \$7 per couple there will be no cut-rate for mathies.

President Cindy Harris reported on Faculty Council. Mechanisms for handling incomplete grades in math credits have been approved subject to the constraints: 1) must be a valid reason with consideration by prof and/or student, 2) extension period will not extend past one academic term, and 3) if work is not completed within the time limit, the INC will remain unchanged on the records and there will be no further opportunity to complete the work except for extenuating circumstances with approval by the Associate Dean. Also Faculty Council has in effect, approved the name change of the math faculty to the Faculty of Mathematical Sciences. This, of course still has to be considered by the University Senate.

Federation of Students' Andy Telegdi was in attendance and announced the Federation of Students- Societies Conference to be held this weekend, Jan. 19 and 20 in the village I great hall. The Saturday session will feature an Ontario Federation of Students presentation on related student struggles and priorities in Ontario, an analysis of the U. of W. Act 1972, Federation of Students position paper and the societies' viewpoints on student concerns. Dinner will be provided to be followed by discussion and a pub. Saturday will feature a workshop and resolution. All are invited to attend but Telegdi advises that anyone interested should contact Andy Haycock in the mathsoc office.

In other business council voted to give the U of W Amateur Radio Club \$50 and granted \$50 to the Black Bubble Coffee House, a venture initiated this summer. The coffee house begins next week, on Tuesday night in the Engineering 4 lounge.



## EPISTLES TO mathNEWS

(Note: Letters appearing in this column represent the opinions of our readers. mathNEWS welcomes your criticisms, comments, suggestions, etc. All letters should be signed, but, if requested, a pen name will be used. Submit your feedback to MC 3038 and have someone there deposit it in the mathNEWS file. Or, drop your letters in the campus mail (a free service) addressed to: mathNEWS, MC 3038. Weekly deadline for submissions: TUESDAY 4:30pm.)

### math ≠ compusci

(Note: The following letter was received late last term.)  
mathNEWS:

I would like to comment on some of your letters in Feedback even though its the end of the term. Mike Cooper says "many of us have been lured to Uniwat on the assumption that it was at least equal to the tops in Computer Science...." I feel this represents a harmful but ubiquitous attitude. I did not come here to do Computer Science, I came here to study math and I bloody resent having to spend virtually all of my spare time in DEBUG.

To profs who say "go run it and see" when you ask "what if..." I would like to remind you I have 5 other subjects for which I am responsible. One of the tutors even told his section that he expects them to spend at least six hours per day running programmes. It works out to about that anyway but this tutor's attitude is penultimate of stupidity. I feel there should be a section of M132 for students not likely to continue in Computer Science.

This section would not stress computer usage to the degree that it is presently and would perhaps relieve the load on DEBUG.

A Math Student.

### unCLASSIFIED

(Note: mathNEWS will print your classified ads FREE OF CHARGE. Just jot them down on a slip of paper, take it to room MC 3038 and have someone there deposit it in the mathNEWS file. Or, drop your ad in the campus mail (a free service) addressed to: mathNEWS, MC 3038. Weekly deadline for submissions: TUESDAYS: 4:30pm.)

FOR SALE: G.E. hi-fi record player, separate base and treble controls, walnut cabinet, suitable for 33,45 and 78 speed discs. Phone 884-7418

FOR SALE: Math texts: Introduction to Operations Research, Hillier & Lieberman; Applied Dynamic Programming, Bellman & Dreyfus. Phone 884-6416

NOTICE: Make a retarded child smile by helping the Circle K Club on its January 26 sleigh ride. Contact Circle K, MC 3040, ext2326.

mathNEWS - a news weekly published at the university of Waterloo, is financed through mathematics society fees and is available free of charge to math undergrads. The views and opinions expressed herein are those of the mathNEWS staff and are made independently of both the university administration and the math society. mathNEWS welcomes your contributions, suggestions, criticisms, advertisements (published free of charge), feedback, etc. Contact us via room 3038. We put the whole thing together on Tuesday nights in MC 3011; feel free to drop in. Weekly deadline for submissions: TUESDAYS 4:30pm. Circulation this issue: 1200.

With our eyes on the clock, our heads in our hands, and our feet in our mouths, we can think of nothing to say but Happy Birthday mathNEWS. The publications of this issue marks the first anniversary of the birth of mathNEWS. Yes, one year ago yesterday we held our first "organizational" meeting. Keep that card and letter coming. Why don't you come out next week and help us write a plug for more mathNEWS staff. Surviving on crunchy donuts, we were: pete "burloferimeter" raynham, susan "our analogies" berg, pat mcgrath, bob white, mark shields, mark saaltink, randall mcdougall, tom duff, jim webb, the phantom, dave brown, lan macrae, "r". Good night, Zelda, wherever you are--

*4. The (we) mainly (right) folks*

--mathNEWS DISCONNECTS