

ribbit to sweden?

## CANADIAN COMPUTER CHESS CHAMPIONSHIP

Next weekend, June 21 - 23, the Computer Science Club (CSC) will host the First Canadian Computer Chess Championship. The event, sanctioned by the Chess Federation of Canada, will also be sponsored in part by the math faculty and the math society. The Kitchener-Waterloo Chess League will provide chess supplies and officiation.

The tournament has apparently received wide recognition. Ribbit articles have appeared in both the Toronto Star and the Toronto Sun, not to mention the K-W Record. The C.B.C. plans to cover the event for inclusion as a feature in its Weekday program. Word has also been received that the Canadian winner in the tournament is invited to compete in the upcoming World Computer Chess Championship in Sweden.

Invitations were sent all across

Canada and the United States for the championship. A total of six North American entries have been received including CHAOS (Sperry-Rand Univac, New Jersey), CHUTE 1 (University of Toronto), DART 4.0 (Dartmouth College, New Hampshire), WITA (University of Alberta), and HICCUP (University of Waterloo). The official entry of the CSC is Ribbit.

Primarily the work of Ron Hansen, Russell Crook and Jim Parry, Ribbit is a relatively young program. Its predecessor was a program called Treefrog (so named because it used a tree search technique and because, in its first version it would "frog" pieces turning kings into pawns for example) written by Ron Hansen, a graduate student in Computer Science at U. of W. The first version of the program, developed

(CHESS, cont'd on next page)

ISSUE 5.3  
THURSDAY, JUNE 13, 1974.

# mathNEWS

## mathNEWS inducted

### U of W ARCHIVES

Two weeks ago, on Wednesday, May 29, another chapter in the annals of mathNEWS' brief history was written. It was on that occasion, in a simple, brief ceremony, that Miss Ada Berti, head of the E.M.S. library, accepted on behalf of the University, two sets of past mathNEWS issues destined for the University's Archives. A third set was acquired to be made available in the E.M.S. library.

mathNEWS interviewed Mrs. Doris Lewis concerning the University Archives which are housed in the Arts Library.

The archives were started shortly after the library was opened (way back in the 1960's). The objective is to keep all important information produced by the University. This is to make sure the material just doesn't disappear because even now it is difficult to track down information.

The library hopes to organize the material they have onto the shelves sometime this year. The material is currently stored in boxes in the rare book room.

The archives has the important campus

newspapers... mathNEWS, Coryphaeus, Chevron, Gazette...

They also have newsreleases by the University, papers from several governing bodies and newspaper clippings about U. of Waterloo (provided by a clipping service).

The archives would like to have copies of everything published on campus (except textbooks) as well as important papers of

(ARCHIVES, cont'd on next page)

## ELSEWHEN

Fragments from mathNEWS' files, Thursday, June 14, 1973, one year ago this week: "...Mosport: two nights and two days of drinking beer, waiting in lineups 50 deep to have a shit, and generally having a good time. The only disappointment was the race..."; "...and sneaking of suffering...you may have noticed that this week there are a lot of strange little creatures who are running around the building (ie. It's Junior Math Contest time)..."; "...As some of you may have noticed, the Mathematics Society is back again, just cliquing along..."; "...Team Cracker is a softball team...heavily represented (by) 3A C.A. students. As of June 11 they have played six (undefeated) games totally 86 runs for and 11 against..."

(CHESS, cont'd from front page)

in the summer of 1973, was completed in three weeks as an assignment for a graduate course in artificial intelligence. It was then expanded and revised several times and in January of this year the Computer Science Club started its chess project. A total of 17 students adopted Hansen's program and worked on it with the result being the present version of Ribbit.

What are Ribbit's chances of capturing the Canadian title? CSC president Jim Parry seems confident of taking the championship. Ribbit's life-time official statistics stand at 11 wins, 3 ties and 16 losses. Its improvements can be shown in boasting a 5 - 1 - 4 record in its last 10 matches. Its totals against other computer programs stands at 6 - 1 - 4. Its main competition in the upcoming tournament appears to be the New Jersey CHAOS entry.

The weekend of events commences on the Friday afternoon when each participating team is to present a half-hour seminar and question-and-answer session in MC 2065. The first talk, the Ribbit seminar, begins at 2:00 p.m. with U. of W.'s other entry, the Hiccup team, scheduled for 4:00 p.m. Actual competition in the round-robin tournament gets underway Saturday morning at 9:00 with other Saturday rounds scheduled for 2:00 and 7:00. Round four will be on Sunday at 9:00 a.m. with the final play at 2:00. On Sunday evening a dinner is to be held at the Faculty Club for all participants. Trophies will be presented to the first three Canadian finishers along with a trophy for the overall winner.

The tournament is free and open to spectators. So anyone, ranging from the chess fanatic to the curious, should find something of interest in next week's event-- the first of its kind in Canada.

Here is a summary of the weekend's events:

Friday, June 21

Registration  
Seminars by participating teams, MC  
2065

Saturday, June 22

9:00 a.m. Round 1, MC 2017, 2067  
CHAOS vs. CHUTE 1  
DART 4.0 vs. HICCUP  
RIBBIT vs. WITA

2:00 p.m. Round 2, MC 2017, 2067  
CHUTE 1 vs. RIBBIT  
DART 4.0 vs. CHAOS  
HICCUP vs. WITA

7:00 p.m. Round 3, MC 2017, 2067  
CHAOS vs. RIBBIT  
CHUTE 1 vs. HICCUP  
WITA vs. DART 4.0

Sunday, June 23

9:00 a.m. Round 4, MC 2017, 2067  
CHUTE vs. DART 4.0  
HICCUP vs. RIBBIT  
WITA vs. CHAOS

2:00 p.m. Round 5, MC 2017, 2067

HICCUP vs. CHAOS  
RIBBIT vs. DART 4.0  
WITA vs. CHUTE 1

Evening  
Dinner in the Faculty Club for  
Participants  
Awarding of trophies

(ARCHIVES, cont'd from front page)

the various departments and all the governing bodies (senate, student council, etc.).

Mrs. Lewis said that as far as an archive is concerned "today's current material is tomorrow's history." If you have any questions or some papers you feel should be in the archives then phone Mrs. Doris Lewis ext 3122. Tell her mathNEWS sent you.

## SPOOK RETURNS (AGAIN)

Well, to clear up any misconceptions you may have had, we are getting an IBM 370/158, sometime in August, despite the best efforts of certain people in high places to stall it for a few years. We are not however getting any core for the 'bun, tho that was supposedly the excuse for the stall (that we were not getting it, by the bye, was not the reason the "roadblock" was removed for the /158). With a little luck we may, indeed, actually, get the /158 before the lease on the /145 expires and we are forced to run VM on the 1620. (Although considering the response we had today, we may be too late).

If you weren't aware of it, the 360/44 downstairs which APL runs on is a process control computer which simulates storage to storage machine instructions. This means (to summarize) that just about anything around here short of the 'bun could do a better job. Well, surprise! It will shortly be moving to something else ..... specifically it will be replaced by another /44 (what else) ..... Actually, it does have (we've heard) faster registers, but that doesn't mean more users or the update (remember it?), in fact, you probably won't notice a thing, but it's nice to know (isn't it??).

Speaking of APL and the 'bun, HONEYAPPLE is now available at "SYSTEM?" level. There is also an "EXPLAIN APL". It does explain HONEYAPPLE fairly well, to quote: "a powerful desk calculator language" ..... Unfortunately, the author of this particular file seemed to have HONEYAPPLE confused with the somewhat similar (in appearance only) language, specifically, APL (which as everyone knows, is A Programming Language) ..... as for FUNNYAPPLE, I don't know about that "powerful" either .....

# curriculum committee

## M312 WOES

The Faculty of Mathematics' curriculum committee held a meeting on Thursday, May 30, 1974. Quorum was reached with approximately ten people fifteen minutes after the meeting was supposed to start. The previous meeting's minutes were approved and then on to business!

The main question was: what to do with M312 (a) and (b), (courses on real analysis)? Professors Baker, Hoffman and Lipshitz had previously formed a committee to consider the contents of the courses, and make recommendations as to possible changes to render these more suitable for students in the general programme.

They discovered that M312 is virtually the same as M332, which was designed for honour students. They felt this type of course was desirable for any student studying math for its own sake. The analysis course seemed to be beyond the ability or interest of most students in 312(a).

When looking at marks, and considering individual discussions with students, the instructor concluded that approximately 75% of the students had not got out of the course what had been aimed at.

The committee paper recommended one of the following courses of action:

(1) Abolish the course and drop it as a requirement in the general programme. There would thus be only the alternatives 334(a) and 334(b).

(2) Drop 312(a) as a requirement but change the course so that:

(a) Topics on Dedekind cuts and Fourier series would be deleted. They would concentrate on the fundamental ideas concerning continuity, differentiation and Riemann integration and how uniform convergence and uniform continuity relate to these. The emphasis would be on how the limiting concepts depend on the completeness property.

(b) Make the course into a continuation of Math 217 (with a similar level of rigour) by discussing such things as line integrals, surface integrals, the theorems of Green, Gauss and Stokes, Fourier series, more differential equations, Laplace transformations, etc.

(3) Continue to require the course but modify it as in (a) or (b) above.

After lengthy discussion, a motion was made to recommend 3(a) to faculty council.

and...

## TO PASS STUDENTS

The next topic was a discussion of the Mathematics Curriculum with respect to prospective future enrollments. This was in reply to the discussion of the Math Faculty Council that enrollment and revenue would go down because of the difficulty of the courses here.

One point brought up by Dr. Kerr-

Lawson was that it is difficult to get comparisons between other universities, for they have no faculty of math. Perhaps this is just a "leveling-off". Who can you talk to? The important thing is, what is the attitude of the student?

Professor Beaumont stated that many high school students are being told not to come here because the courses are too difficult. The university is getting a reputation for a high failure rate.

Dean Forbes agreed. He stated that there have been many complaints about the first and second-year courses: there is a definite problem. This led to an occasionally heated discussion about what to do.

The problems were stated to be due to (1) administration difficulties due to size, and (2) academic content.

Opinions ran hodge-podge, so they will be listed in the approximate order brought forward.

For the general courses, one person was wondering: "should we treat them as people who don't want to specialize in math?" It should be made clear what difficulties are involved in changing levels. Eg. If you fail an honours course, how difficult would it be to obtain the equivalent general course?

Often, first-year students don't have enough information about which course they should choose. You also run across the contradiction: if we get so many good students, why is our failure rate so high?

Perhaps they are not used to working in high school, where everything came too easily. Marks are not indicative. Also, the students have had some of the theories, but they don't really know how to use them. They have a complacent attitude because they have taken a smattering, so they don't pay enough attention. It is only an extension of high school!

The reply to this was, teach the course by starting with something they don't know to keep their interest, and delve backwards. Pick up the pieces gradually, and you will keep the student's interest.

Professor Anderson had a "fresh start" idea. He would like to see in the fall, after midterms, the instructors give names of wallowing or lazy students. These could be contacted and spoken to. It should be done again after the Christmas exams. The appointment should not be voluntary, but should be arranged. However, this would require more faculty willing to donate their time.

At this point, the discussion was tabled until the next meeting. The Dean asked that failure rates be looked into, and brought up at the next meeting.

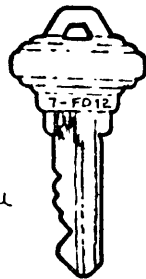
## DROPPINGS

This is a reminder that the final day for dropping courses this term is Friday, June 28. That's two weeks from tomorrow.

ACROSS

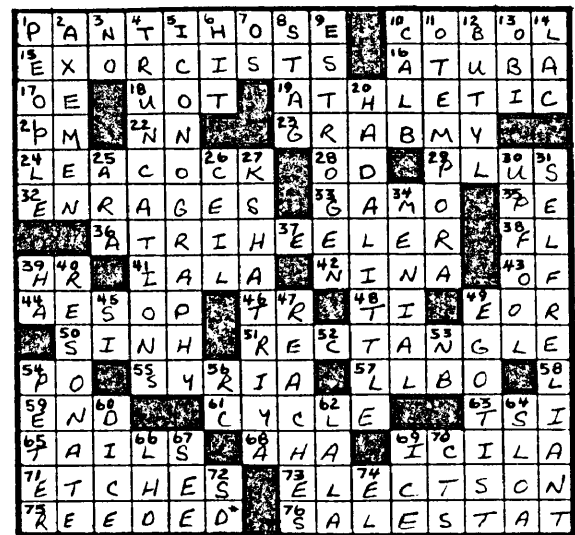
- 1) A LOCUS OF POINTS  
 9) HE WON A 1936 NOBEL PRIZE  
 15) NIMBLE  
 16) VD ALLAROUND OR ME  
 18) AS WELL  
 19) STAR #CP 1133 IS AN ATOM COMPANION  
 21) OTHELLO'S ENSIGN  
 23) A ROMAN GARMENT WITHOUT ESSENTIALS  
 24) IT'S THE CURRENT THING  
 25) AN OBJECTIVE SHE  
 26) OMISSIONS EXCEPTED  
 27) SAYINGS OF A RELIGIOUS TEACHER  
 29) A TAPEWORM  
 33) IMPROVED ORDER OF ROBOTS  
 34) ITCHING  
 35) BACKWARD IN A BRAZILIAN CITY  
 37) A FAMOUS WORD FINDER  
 38) WHAT GOES HIPPIITY-HOP THRU THE MUD? \_\_\_\_\_ PIG  
 41) A (SCRAMBLED) HOSE  
 42) STRAIGHT FORWARD TYPE OF COBOL  
 43) \_\_\_\_\_ IT ALL  
 45) MATH 235  
 46) A CRAZY FASTENER  
 48) DENOTES CONDITIONAL PROBABILITY  
 49) A GUILLOTINED SICKNESS  
 51) BOSTON'S #4  
 52) ABUNDING WITH RUNNING WATER  
 54) STUDENT EXCLUDING ORGANISATION  
 56) HIMSELF (LATIN)  
 59) NOT NEIGH  
 60) NIXON ADDS THESE TO THE FIRE  
 62) THIS MOON'S PERIOD IS 15.9 DAYS

- 64) A LINE OF STAY-OF-EXECUTIONS IS A LIFE \_\_\_\_\_ /6/3/  
 66) PERTAINING TO AN IMAGE  
 68) INSEPARABLE PAIR  
 69) EGYPTIAN ORACLE  
 71) CHAD'S INTERNATIONAL S.W. SIGNAL  
 73) A LEADING R  
 76) SAME AS 59 ACROSS  
 78) DENIAL (E.O)



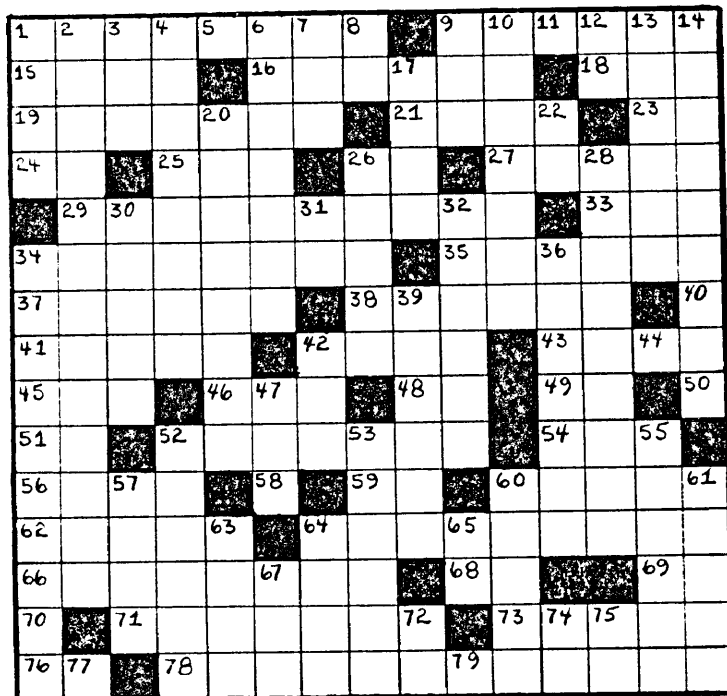
DOWN

- 1 backward type of cobol  
 2 a type of binary  
 3 oral roberts university  
 4 venus  
 6 elington tickled these  
 7 the quality of not being  
 8 european remedy  
 9 johnny seven  
 10 stats assignments suffer from it  
 12 3rd person object  
 14 a mathematical lumberjacks tool  
 13 for creamy skin  
 17 french high command  
 20 resisting pressure  
 22 wool(scot)  
 26 many times  
 28 a solid rock  
 30 a cipher in arithmetic  
 31 a for vowels  
 32 to convert into an aeriform fluid  
 34 a dry spell with a for hi  
 36 some have his complex  
 39 a foundation of science fiction  
 42 to eat in the past  
 47 why, famous cowboy, at  
 52 the senate in the irish free state  
 53 a lumberjack's computer  
 55 east indian timber, pertaining to it  
 57 post



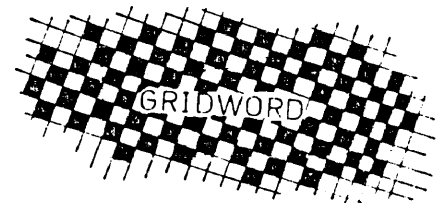
LAST WEEK'S

This Gridword is by MIKE COOPER



This Gridword created by DAVE McDONALD

- 60 \_\_\_\_\_ cose -resembling a shrub  
 61 frodd's famous one was called sting  
 63 african river  
 64 money holder  
 65 operator  
 67 what soup comes in  
 72 no(scot)  
 74 sol(music)  
 75 same as 31down



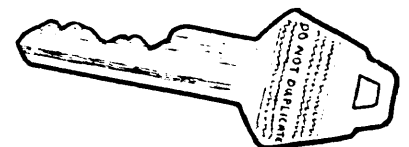
across 40, 50, 51, 70 and down 5, 11, 44, 77, 79 - scrambled solotempt

GRIDWORD COMMENT

Due to lack of terminals only part of this page is typed( in case you didn't notice).

There is NO gridword winner for issue 5.2 All 7 entries were incorrect. Norbert, Jim, Dave and Jim had the distinction of making only 1 mistake. Better luck with this one.

We need a gridword for 5.4 and willing to trade a T-shirt for one. So why don't you create one?



NAME \_\_\_\_\_  
 PHONE \_\_\_\_\_

MONDAY  
 JUNE  
 24

# BUNGLING (MATHSOC STYLE)

Last week several students walked into the mathSoc office (when it was open), and then walked out with 2 cashboxes, 500 dollars worth of T-shirts, one record player, 4 decks of cards, ten chess sets, one clock, a terminal, five chairs, three desks, two phones, an electric pencil sharpener and 65 feet of pink tie.

Was this loss noticed by the mathSoc members on duty at the time? No. Because there was no one in the office even though the door was wide open. Fortunately, the students were very honest and returned everything. If mathSoc is not careful, one day it is going to find that the only thing left in 3038 is a pink wall.

How would you like to be treasurer of mathSoc? All you have to do is take this simple test.

(1) In keeping the books the ability to add is

- (a) very important
- (b) unimportant (if you have a calculator)
- (c) who cares?

(2) If you have a bill for \$88.23 how would you enter it in the books.

- (a) \$88.23
- (b) \$89.00
- (c) \$88.00

(3) To balance the books you need

- (a) correct entries
- (b) a fudge factor
- (c) an eraser, to help juggle the figures.

(4) If you issue a cheque you should

- (a) enter it in the books
- (b) enter it in the books if you feel like it
- (c) write yourself a reminder to put it in the books

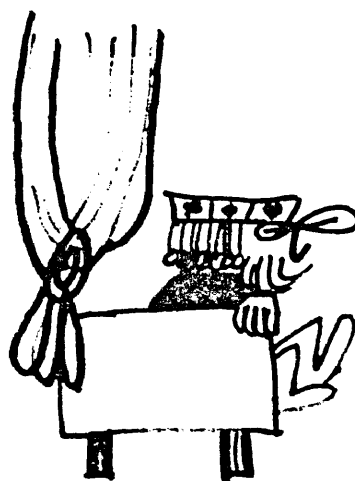
Give yourself '0' points for (a), 10 points for (b) and 25 points for (c). The higher your score, the better qualified you are to be treasurer.

The above test is just to underline the fact that you don't have to know anything about accounting to be mathSoc treasurer. Last fall and winter mathSoc's treasurer was somewhat inexperienced with the net result that at the start of this term there was a discrepancy of \$750 in the books.

We have a well-qualified treasurer this term but I think it should be a requirement that for a person to become mathSoc treasurer they must know some accounting.

FEED  
BACK

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.

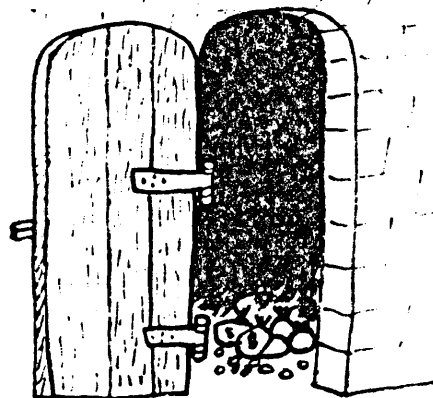


Where's the  
royal  
accountant?

On  
vacation  
sire ...



**TREASURY**



... 156  
157  
158....

## ACCLAIMED

A by-election, originally planned by the Federation of Students for this week in order to fill four vacancies on Students' Council, will not be necessary. As nominations closed last Wednesday, June 5, four applications for positions had been received -- exactly the number required to fill each of one Math (co-op), one H. K. & L. S. (co-op) and two Engineering seats. Acclaimed as Math's co-op rep. was Jerry Linders.

# WHAPPENING?

June 13 - 16 Fed Flicks. "The Abominable Dr. Phibes" 8 p.m. AL 116

June 15, 16 Federation of Students Conference (somewhere comfortable)

June 17 Senate meeting. 7:30 p.m. Needles Hall 3006

June 19 Terror in Latin America. 8 p.m. AL 124

June 20 Travel Lecture Series. Phyllis Forsyth speaking about Greece. 8 p.m. Physics 150

June 20 - 23 Fed. Flicks "The Anderson Tapes" 8 p.m. AL 116

June 21 - 23 First Canadian Computer Chess Championship (Math and Computer building)

June 25 mathNEWS production nite. All welcome. 6 - 12 p.m. MC 3011

## ADS

(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.)

Pub-Dance: with "Fast Eddy" at the Transylvania Club Kitchener (3 blocks south of the K-W Hosp.) on Fri. June 14 at 8:00. No jeans; admission - \$2.00. For tickets or info. phone Peter at 743-4263.

## stats proposal CO-OP MASTERS

The Department of Statistics at the University of Waterloo plans to begin a co-operative masters programme in applied statistics in May, 1975. This will involve

two work terms with an employer in government or industry, and at least two terms on campus during which the normal academic requirements for a masters degree will be met. The aim will be to prepare students for statistical practice rather than for theoretical research. Course offerings will emphasize practical methods of data analysis. Students will undertake a project based upon their work-term experience, under the joint supervision of the employer and a faculty member. In addition to providing valuable training for the students, these projects will give employers access to statistical expertise and computational facilities at the University of Waterloo.

The following paragraphs describe the proposed programme in more detail. Please note that these are proposals only, and that comments and suggestions for improvement are most welcome.

### Prerequisites:

Before being admitted to the co-op masters, students would be expected to have background equal to that of a graduate in Honours Statistics at the University of Waterloo. Waterloo graduates have completed at least ten half-courses in Statistics, including half-courses in multiple regression, design of experiments and sampling, and full courses in probability theory and inference. They must also be able to programme in Fortran or APL, and have a satisfactory knowledge of linear algebra and advanced calculus. Students who are lacking some of this background can expect to do one or two makeup terms before being admitted to the Co-op Masters programme.

### Schedule of Terms:

The minimum requirement is for two work terms and two academic terms, exclusive of any makeup terms required. The programme will normally commence in May and terminate in August, 16 months later.

Spring-first work term

Fall-first academic term (course work)

Winter-second work term

Spring-second academic term (course work and project)

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Well tonite it was sabotage to the right and sabotage to the left and bungling down the centre .....the net result being the fact that we have only 6 pages this week instead of our hoped for issue of 10.....we hereby suggest that math240a assignments be due on fridays instead of on wednesdays....said assignment hogged the terminals as well as reducing the work output of several staff members who had aforementioned assignment due. As for bungling down the centre we are keeping the evidence to prove that a certain special staffer typed in a 2 page article and then managed to erase it without anyone noticing until around 2am.....oh well, at least our old headline pens worked (after I bought new ones).....and does anyone want a piece of pizza.. we still have a bit left over....thanks for the letter Roy...we needed cheering up... This week our depleted staff (staff is defined as anyone who shows up and does something constructive in producing tison) was SUE BOND and CATHY POTTER (co-pizza editors); PANDALL McDUGAL and MARK SHIELDS (you corrected something??!!); PAUL (mathNEWS vs M240) LEAR; the phantom; INGRID (next weeks winemaker) SPLETTSTOESSEP; JOHN PEEBLES and DENNIS MULLIN (to the bitter end). Don't forget to join us in M&C 3011 on Tuesday the 25th at 6pm.