## csc stockholm bound?

# RIBBIT TAKES CANADIAN CHAMPIONSHIP

Last weekend saw the First Canadian Computer Chess Championship, or FCCCC, held right here at the University of Waterloo. Invitations were sent out to all computing centres that had chess playing programs. Six entries were received, two from the U.S., and four from Canada, including two from the University of Waterloo.

The original entrants included Chute 1 from the University of Toronto, Dart 4.0 from Dartmouth College in New Hampshire, Hiccup and Ribbit, the two home grown entries, Chaos, from Bell Labs in New Jersey, and Wita, from the University of Alberta. Chaos had to be withdrawn, because of lack of funds to send representatives here. It was replaced by another Bell Labs creation, Tinkerbelle. Bell Labs has written an Operating System

for the PDP 11/45, called UNIX, which we have a copy of. Among the standard system supplied software, such as a program to factor numbers and a spelling corrector for essays (which contains Webster's dictionary) is the Chess program Tinkerbelle. The entry from the University of Alberta could not attend, either, due to lack of funds. They sent us a tape, however, containing the chess program, written in AlgolW.

Activities on Friday included the setting up of the playing area, in room 2017, which is the programming area overlooking the Red Room. Three playing areas were set up, each provided with a 2741 terminal, or facsimile, and a schedule of the five games to be played at each area

# mathNEWS

## july 4,5&6

# PUBS, FRISBEES, PUBS, BAD BREATH

If the past is any indication a freak hail storm should hit Waterloo next weekend. The occasion will be the math society's math weekend-- July 4, 5 and 6. Past history has shown that math winter weekends are accompanied by balmy weather with an abundant lack of snow for the ski trips and other winter activities. As for the summer version the optimistic would concede, at best, rain but most probably hail or something as exotic.

In any event the weekend of festivities gets underway on the Thursday evening with a pub featuring Yukon. The admission for this pub, as for all the others, is 50¢ for mathsoc members, $1.00 for federation members and $1.50 for others. The doors open at Food services at 8:00 and close at 12:30. Friday evening will feature an "Amateur Night" pub at Food services with Fast Eddy. Also scheduled is a "Bad Breath Contest".

Saturday's activities commence with a bike rally (with a 10:00am starting time) to be followed by an Engsoc-Mathsoc beach party at Columbia Field beginning at 12:30pm. Featured will be a three-legged race, potato sack race, frisbee throwing, co-ed slow-pitch, obstacle course and a tug o'war across Lake Columbia between Mathsoc

and Engsoc.

Saturday night will be highlighted by a pub at Food services with Chinook.

## ELSEWHEN

Fragments from mathNEWS' files, Thursday, June 28, 1973, one year ago this week: "...Now that the hot weather is here, everyone likes to wear shorts-- until they reach the Math building. Entering the Math building is like entering a deep freeze..."; "...mathSoc election turnout: 70.2% for 4A (John Dark), 43.6% for 2P (Phil Lanouette), 29.8% for 1B (Calvin Barret, Lyn Stephens)..."; "...As the frontiers of the Honeywell's Command Lib become ever wider (time sharing COBOL?), it seems to be developing a strange and fascinating (if somewhat malicious) mind of its own (or in the words of that fine old aristocrat, Baron Frankenstein: 'We've created a Monster!')..."; "...Summer Week is being sponsored as a joint effort of Mathsoc, Engsoc, and the Federation. It will encompass a wide variety of activities from a 'Boat Race' to a semi-formal and all things in between..."

In the round robin tournament. Team representatives showed up, and speeches were given in the afternoon. The evening featured dinner and an informal get-together at the Heidelberg Inn, where a number of FCCCC participants, including a chess grand master displayed a lack of ability at shuffleboard.

Setting up for the chess games was not without problems. UNIX, which supports Tinkerbelle, had to be brought up. It had been planned to run UNIX on C&O's PDP 11/45, but an apparently malfunctioning memory manager prevented a successful boot. Time was eventually gained on the PDP 11/45 in Engineering, and UNIX was successfully started. There is a phone link to the 11/45, but it was impossible to establish a link by dialling out, and nobody knew the number to dial in, so finally one person was stationed at the 11/45 in Engineering, operating the program, and relaying moves by voice over a telephone line to the playing area.

Wita runs on an IBM/360 model 67 at U of A. It was attempted to bring it up on a similar machine, namely our 370 145. The first problem was Wita wouldn't compile. It turned out that AlgolW would only accept up to 512 BEGIN blocks, and Wita has over 700. The compiler was recompiled after being suitably altered, and Wita was now compiled successfully. Execution of the program ran into many problems, including the fact that one of our run time libraries was all zeros. There were several major problems, and though at times we thought we virtually had Wita up, our 370 team finally gave up Saturday night. As a result, Wita had to forfeit all games in the tournament.

The chess action started Saturday morning, with a game between Tinkerbelle and Chute 1. Tinkerbelle stepped on Chute 1 after thirty-eight moves with check mate in the centre of the board. It turned out, upon later inspection, that Chute 1 had a bug with its timer. By dividing by twenty, when it should have been dividing by forty, Chute 1 thought it was running out of time and was cutting back on the lookahead for its moves, leading to some bad moves.

Dart 4.0 played Hiccup in the second game. Dart won after twenty-two moves, when Hiccup forfeited the game by memory fault.

The next round saw Dart 4.0 defeat Tinkerbelle after twenty-five moves. Tinkerbelle resigned when it saw it would be mated in two moves. Chute 1 played Ribbit to a draw in a close contest. The official contest rules limited the time for moves by fixing a maximum number of moves within set time periods. It turned out that during one of the hour intervals, the programs were taking long enough on each move, it looked like one program might win by the other one exceeding its time limit, thereby forefeiting the game. The situation became tense as each machine, in turn, sat there thinking about its move, while the chess clock ticked closer and closer to the hour. Finally, a sequence of three repeated moves forced a draw to the game.

It turns out, that if Dart thinks it's losing (Ribbit does this too), and sees an opportunity to force a draw, it will go for the draw. Chute's checking for repeated situations is not very complete, and it apparently missed this situaution.

In the third round, Ribbit mated Tinkerbelle after fifty-eight moves. Chute 1 took its game against Hiccup in in twenty-two moves.

That evening (Saturday), pizza was brought in for all the human participants and workers, who took it easy after the day's activities (except for the 370 team who were still trying to get Wita to run).

The next day, Sunday, saw, in round four, Chute 1 tie Dart 4.0 after fourty moves with a repetitive situation. Ribbit then took Hiccup after twenty-five moves.

In round five, Tinkerbelle took Hiccup in sixteen moves. The last game featured Dart 4.0 against Ribbit. Both programs were tied for first place with a record of three wins and a tie each. This game was therefore the crucial game. A large crowd turned out to watch this contest. The game went pretty evenly, until a bug in Dart started Ribbit on the road to victory. It seems that Dart rewarded itself for giving its pawns away (a case of reversed sign; in technical terms, it gave itself cookies for losing pawns rather than giving up cookies). After it had lost all its pawns, the game continued as Ribbit mounted strategies on Dart's remaining three pieces. At about six o'clock, Dart resigned, making Ribbit the Canadian Computer Chess Champion. The game had lasted fifty-four moves, lasting three hours and fifty minutes, and had cost $114.33 in Honeywell resources for the Ribbit team.

After the game, awards were presented in M&C 2066. Each program entered received a plaque. Hiccup won third best Canadian entry, Chute 1 won second best Canadian entry, and Ribbit took top honours with best overall entry and best Canadian entry. Ribbit (or Rabbit, if you listen to CBC) now is eligible to enter the World Computer Chess Championship, which will be held from August fifth through eight in Stockholm, Sweden.

Whether or not Ribbit will go is still up in the air. Funds are required to send the Ribbit team of Russell Crook, Ron Hansen and Jim Parry to Europe. Another problem is that of computer hookup. A satellite link has been suggested, as this is what the American teams will be doing. An ocean cable was also suggested, as well as the possiblity of attempting to find a machine in Europe that would support Ribbit.

# CO-ORDINATION WOES?

There will be a Student Advisory Meeting today, Thursday, June 27, at 3:30 p.m. in E2-2318. Anyone who has feedback for the Co-ordination Department, is welcomed to submit complaints, suggestions, etc., in writing to the math society (MC 3038) or is invited to show up at the meeting in person.

# THE RIBBIT STORY

As you probably know by now, Ribbit, the CSC Chess program won the Canadian Chess Championship. Ribbit was originally the product of Ron Hansen, who was doing a project on Artificial Intelligence as part of his Graduate work. After he was done, Jim Parry got the Computer Science Club to take up the project. The program was eventually named Treefrog, because it used a tree structure to search for moves, and because it "frogged" pieces (such as turning a king into a pawn). The term "frog" was invented by the 'Bun boys to describe something that gets modified into something it shouldn't be by unauthorized peice of software. One example is when you sign on as "japublic", but get "frogged" into "1w%p*#bp!>s;" by the system. This means all your files become unaccessible (you can't save anything), but you don't get your resources updated when you sign off.) Later on, Jim Parry took a liking to the name Ribbit (the sound a frog makes. You probably thought the sound a frog makes was a croak. Don't believe it. Frogs ribbit.). No one opposed the name (?) so now it is officially called Ribbit, and is registered in the Chess Federation of Canada as Ribbit. Although Ribbit has had it's problems, such as the way it used to try and force a draw if it thought it was losing, even to the point of avoiding the chance to mate it's opponent, the CSC chess project now has a reasonable, but resource burning, computer chess player.

# SPOOK RETURNS
## (yet again)

NOTICE: For those who may have been fooled by its excellent camouflage, a new (or should I say used) /360 has arrived downstairs (blends right in with the walls of the pit doesn't it?). Presumably this is the suped-up '44 that we should be expecting..... at least it looks something like a '44 and, personally, I can't see anything else getting here without an incredible financial review first. This, of course , probably means that the change-over of APL is imminent.... along with resulting system problems. Fortunately(?) the general lack of people during the summer combined with the lack of general use accounts, slackness of assignments (and probably the cracking of the MAIL systems as well) has resulted in an unusually slack period for usage.
TO MARK: That's right
TO CATHY: I hope y   ke donuts because that's what we    f pizza.
TO SUE: I hop        inted!

ANCE

at tomorrow, June
dropping spring

Well, we took first place in the Chess tournament last weekend. (We wouldn't have held the tournament in the first place if we knew we weren't going to win, you say. Maybe so.) It was interesting to note that, except for the Honeywell 6050, Tinkerbelle, on the PDP 11 was the closest computer to the playing site. But while lines to Toronto could be connected straight into the tournament area, we were unable to get a terminal for the PDP 11 hooked up. Therefore we had a user sit over in engineering and relay the messages by voice.

If you've thrown a glance into the Red Room lately, you'll notice our new IBM 360-44 is here from U of T. It has red panels that blend in with the floor and walls of the room, and can make the machine look "not there" if you give a quick glance. The Computing Centre decided that the 44 they have just didn't make a viable alternative to a computer for running APL, so learning from experience, they rushed out and bought another 44. Meanwhile, a number of programmers upstairs get to try their luck on the old 44.
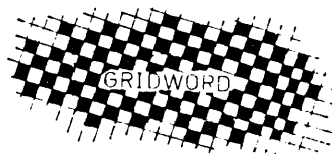
Two weeks ago, the Chevron published an issue featuring an ad for the Dairy Queen. In big lettering it said something to the effect of "coupon offer -- BIG brasier - cheese, fries and small shake only $1.49" However, if you read the fine print, it described how you could get a Scrumpdillyishus burger, shake and fries, "all for only 00¢!" Certainly an offer not to be passed up. Whether the DQ would actually have given you the food for free is debatable, though (especially if you walked into their store with a pile of Chevrons.)

People who design the posters that get put up all over the campus must be faced with a dilemma. If you make a poster dull, no one reads it. So you want to make something that catches the readers attention and holds it. However, if the poster is too eye-catching, people rip them off because they look neat and want to wallpaper their rooms. A notable case was a poster last term entitled "March to Victory", which advertised a trip to Victory Burlesque Theatre in Toronto. These posters had a half life of about three days.

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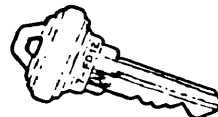
# *****ACROSS*****

01 fishy distribution
08 what a horny frog says
13 power
15 ozone
16 College Athletic Association
17 dy/dx
19 1/2 (English Farewell)
20 statisticans favourite greek
   letter
22 what Victoria was
23 a type of sine
25 work
27 Transylvania Railroads
28 Grand Turnip Organization
29 kick
30 the one who gets the money
32 see 15 across
33 light refractor
35 conditional conjunction
37 Sandy's famous saying
38 Permuted fount
40 head of BOE
42 eschew
43 other(latin fem.)
44 looney
45 misspelled French king
46 Justice League of America
47 Friday's beat
49 Bond's boss
50 problem with large ears
52 Association for the
   Salvation of Turnips
53 St Nick's monogram
54 crone
55 __ be or not __ be
56 Independent Iterative Analysis
58 singular of buttocks
59 foundation
60 ___can

61 folks
63 employ
64 feathered
   constrictor
65 is not(contract)
66 James Bond's
   halfwit brother

## )))))) DOWN (((((

01 shape of home plate
02 animal-drawn wagon
03 type of beer
04 lye_____
05 see 60 across
06 complex Theban king
07 N 22.5° E
08 wander
09 University of
   Turniptown, Utah
10 uninhibited
11 checking out data and
   results
12 what the toe truck did
14 depend upon
15 eggs

18 getting it _____
21 Limit rule minus L
24 see 18 down
26 castrate
30 another type of sine
31 Rural Free Delivery
34 a French king
35 large American corporation
36 principle key of Pastoral Symphony
39 Chest Expanders
41 Yo ho ho drink
42 platitude
46 yes(german)
48 land measures
50 artist's stand
51 a cheer for the Nads
54 a spooler
57 appropriate
59 buttocks
60 Turnip Biters of Ontario
61 Circumference/Diameter
62 where bad folks go
67 ego(english)
68 most used letter
69 a social insect

GRIDWORD

(filled solution grid:)

```
I S O C L I N E . O N E I L L
S P R Y . V O R D M E . T O O
N E U T R O N . I A G O . T G
A C . H E R . O E . L O G I A
. T A E N I A F U G E . I O R
P R U R I E N T . A C O B N I
O G E T S . E A S T E R . T
O S H A E . A N S I . D A S H
A C T . N U T . I F . I L . M
B O . S T R E A M Y . P T A
I P S E . P . N O . F U E L S
T I T A N . S A V E R S R O W
I C O N I C A L . Q U . F O
O . B A L A F O N . T S A R R
N O . O E N A G A T I O N E O
```

NAME _____

PHONE _____

July
Monday
08

# this ∑ THEOREM week's

GIVEN: The set of positive integers, and the set of real numbers between 0 and 1.

REQ'D: Prove that there are the same number of positive integers as real numbers in the interval from 0 to 1.

PROOF: Two sets have the same number of elements if we can find a one to one relationship between the two sets. For instance, (1,2,3,4,5) and (A,B,C,D,E) have the same number of elements, because we can relate them as follows:

```
1 -- A
2 -- B
3 -- C
4 -- D
5 -- E
```

Now, let us define the following relation: For every element of the set of integers, take the digits of that number, reverse their order, and place a decimal point in front of them. This new number lies in the range of reals from 0 to 1. A few examples...

```
   1 -- .1
   2 -- .2
  10 -- .01
 364 -- .463
1024 -- .4021
```

This matching, for any integer, gives a unique real number, and vica versa. Therefore, for every positive integer there corresponds one and only one real in the 0 - 1 range. Therefore, there are the same number of positive integers as there are reals in the 0 to 1 range.

$$- QED -$$

$$\int_1^{mower} \frac{dx}{x} = \ln\ mower$$
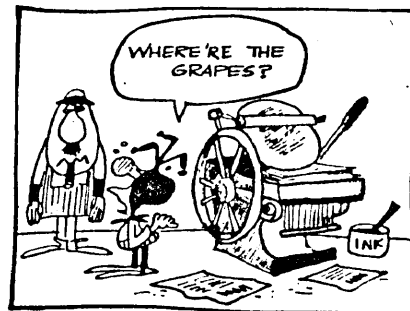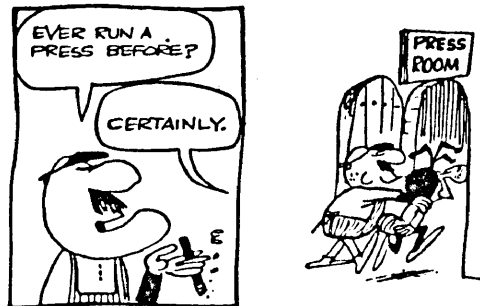
$$\int 3\ ice^2\ d\ ice = ice^3 + C$$

This space was reserved for a diagram illustrating how the PDP 11/45 mated the IBM/370-145 in the Chess Tournament, however, diagram was unavailable at press time.
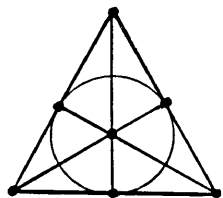
28.
ter

# W'HAPPENING

# ADS

5

# THE WINE MAKER

Professor Lee Dickey was born in Newcastle, Pennsylvania on April 3, 1939. For a while he lived in Arizona, where he used to do a lot of hiking. It's hot all the time there, with about as much opportunity for outdoor life as here, only with the roles reversed--you don't spend much time outside in the summer sun.

He obtained his B.A. (1961) and M.A. (1963) at the University of Arizona, and started teaching when he was a grad student. He finished his PhD. in 1970 at the University of Wisconsin. His thesis was about finite geometry, which is a study built up about carrying intuitive ideas to finite systems. (see diagram)



The dots symbolize points, the lines symbolize lines, and the circle is also considered to be a line. Thus, you have seven lines and seven points.

There are three lines through each point, three points on each line, every pair of lines meet in one point, and every pair of points lie on one line. This is the smallest example of a finite projective plane.

Finite geometry is a relatively new study, since about the '40's and '50's. Bibliography, however, can be enormous; there are literally thousands of books and papers written since that period. The subject is closely related to "block designs" in combinatorics, which experimenters use to design experiments. (The above example is also a block design with 7 blocks and 7 points.)

Prof. Dickey is married with three children; they enjoy camping, picnicing. His son, the youngest, is enthusiastic in sports (unlike his father), and does well in soccer. Kathy likes to play the piano, and Sonja does ballet. They all like to swim. He is an amateur wine-maker, and comments that it doesn't last long, because it is difficult to wait a year for it to mature. He also enjoys photography, and plays the oboe.

His wife, Carol, is a nurse and has just started working at South Waterloo Memorial Hospital as infection control officer. She keeps statistics on hospital acquired infections and makes quarantine decisions. He jokingly says that Carol would be really excited if she could detect a social disease epidemic in a mens ward carried by a night nurse.

Prof. Dickey obtained his job in an interesting way. He talked about the results of a paper of his at a conference.

After it was over, a fellow asked him about his work. They were good questions, and it was clear that the paper was understood, and there was interest. Prof. Dickey asked his name, and found that he was chairman of Pure Mathematics here. The professor had seen some of the chairman's work, and he tried to get hold of him later during the conference, but couldn't do so.

This was the first he'd heard of U. of W., so he wrote to the university. The chairman replied, asking him to come here for a talk.

During this time period, he was being interviewed for various jobs, often in depth. Here, he was not asked personal questions, was taken out for dinner, gave his talk. He saw that people were interested in his research and his work, not his personal life.

So Prof. Dickey kept waiting for a reply from U. of W., stalling other schools. Eventually, he had a phone conversation with the Dean, who assured him of a job here.

Prof. Dickey is on the Senate Teaching and Learning Committee, Faculty Executive Committee, and has been on the Promotions Committee, where he has seen a lot of special cases. The computer Usage Committee (of which he is also a member) talks about the computing budget, and charge-out systems (in the past year mainly). Sometimes they make recommendations about equipment to be purchased. They were consulted about negotiations with Honeywell.

This brings up a Story: When the Math Faculty was looking for a computer, Honeywell didn't have a suitable APL package (a time-sharing system). Honeywell said they would fix up a system: they weren't planning on writing it: they hired another company to do so. At the same time, this company was supplying service to U. of W. via long-distance phone lines. Some people think this company was slow in providing software because they were making money selling us time on their machine. The end result was that Honeywell's APL did not meet specifications, and now some U. of W. undergrads are writing it (Bill Ince being the "prime mover").

Prof. Dickey is managing editor of a journal called "Aequationes Mathematicae", and his major duty is to decide who shall be the referees for the papers submitted to the journal, and pass their reports back to the authors. (He is helped a lot by a good secretary).

He enjoys geometry most: he teaches projective anc complex geometry, taught second year linear algebra for many years, and is co-ordinator for that course (ie., he has to choose the text, among other things).

He used to have a book that both teachers and students liked (published 1971). They used it one year, then it went out of print. He wrote to the publisher and the author. The publisher said no, he would not reprint. The author said that the letter received by U. of W. proved the publishing company still existed: he hadn't received answers to his letters for

(WINEMAKER, cont'd from previous page)
months. The result: a new text.

In Prof. Dickey's opinion, U. of W. is a fine place because he can see many other visiting mathematicians from other universities--he finds this rewarding.

First year students are especially enthusiastic. He enjoys teaching 129 because of this fact: however between first and second term, some lose their enthusiasm.

A helpful hint for mathNEWS: We should put in historical notes. EG. Did you know?...that at age four Gauss told his father he had made a mistake in making out the payroll for his brickyard.

(Also, they kept his brain when he died, because they believed if you were a genius, there was something different about you.)

# MATHSOC MEETS

Math Society social director Christine Charlebois reported at Tuesday's (June 25) mathSoc meeting that approval has been granted for the five permanent pub licences sought for U. of W. This announcement was made at a recent Federation Board of Entertainment (B. of E.) meeting. Also from that B. of E. session, Charlebois informed mathSoc that it was decided to centre this year's orientation around a circus theme. In another move the B. of E. agreed to grant $600 towards Engsoc's semi-formal.

Other footnotes from Tuesday's meeting:

--Peter Lee reported that work on the anti-calendar is progressing with the tentative deadline for completion for August 1. A new feature of this year's anti-calendar will be the responses of the the profs to their ratings.

--Ideas and volunteers are being solicited to plan September's orientation.

--MathSoc's key holders were urged to spend as much time in the mathSoc office as possible due to complaints about the office being often closed.

# a comment

In case you didn't know, it has been proposed that the library reduce the service hours and close at night.
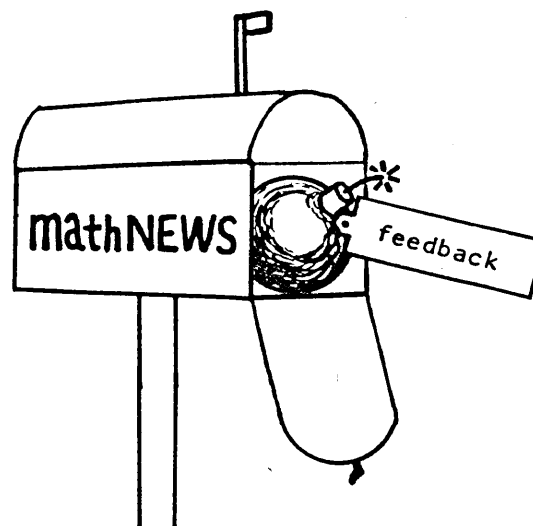
The proposed changes would mean that circulation service would close at 5 p.m. on Saturdays and 11 p.m. on all other days. (This would result in a savings of about $12,000 in salaries.)

The changes, if put into effect, would also close down the Arts and EMS libraries between 2 a.m. and 8 a.m. (It was felt that closing down would affect few people -- between Oct. 1973 and Feb. 1974 an average of 17 people entered the Arts library and an average of 20 people entered the EMS library each night).

These changes may be implemented in the fall if the senate gets around to approving them.

How do you feel about these changes? Silence means consent.

# mathsoc replies

mathNEWS:

I am writing in response to your editorial in the last issue of mathNEWS: "Bungling -- MathSoc Style" (June 13).

The quality of that article illustrates convincingly how hard up mathNEWS is for "filler" and is not at all typical of the quality we have grown to expect. It was grossly unfair to the past treasurer of mathSoc and I believe -- no, I demand that you publish an unqualified apology to the person to whom the criticism was leveled.

MathSoc's treasurers, past, present, and future, make no claims on perfection. They attempt only to keep track of expenses, see that bills get paid, and keep orderly books to pass on to a complete stranger who fills the post the following term. Last year's treasurer did an outstanding job and should be commended, not criticized for it. During the month of April (and final exams) new books had to be initialized for the fiscal year starting 1 May 74. A discrepancy of $750 is extremely easy to create -- due to the multiple accounts that we must keep track of (including mathNEWS). The problems multiply when spending estimates from various sources do not match those in the books. mathNEWS, for instance, submitted an erroneous billing report.

We both know how difficult it is to get students to participate in anything on this campus. You recently published an appeal from me for volunteers to aid mathSoc in organizing math weekend, anticalendar, and orientation. We received one response.

Judging from the quality of the last issue, you too are having problems enlisting volunteers -- even though you bribe the population with promises of pizza. Discouraging, isn't it?

MathNEWS should not, therefore, level criticism on those willing enough to come forward and offer their services, as this can do nothing but discourage potential volunteers. A little pay raise, when due, is far more effective than any form of criticism.

I repeat my demand for an unqualified apology for the editorial in the last issue. Failure to do so would be an admission of being an irresponsible editor. An irresponsible editor should resign. Either that, or substantiate your claims of mathSoc bungling with facts. The president of a bungling organization should resign, too.

Paul Armstrong
mathSoc president

Author's Reply:

In the article the only comment we made about the past treasurer was that she was inexperienced. We did not level criticism at any of the past mathSoc treasurers. Our intent was to point out the fact that there are no mathSoc regulations concerning the qualifications of the mathSoc treasurer (who handles over $10,000 a year).

As for mathNEWS' "erroneous billing report" we would very much like to see it.)

# bungling

(NOTE: This article was submitted by an irate reader)

BUNGLING (MATHNEWS STYLE?)

Would you like to be editor of mathNEWS? All you have to do is take this simple test:

(1) Feature Articles should be
(a) Items of interest to all mathies
(b) Items of interest to some mathies
(c) the crossword puzzle

(2) mathNEWS should be
(a) the official publication of undergraduate math students, expressing their opinion on faculty and campus-wide issues
(b) the official publication of some undergrad mathies, pointing out both sides of all issues of interest to math students
(c) the editor's publication of his opinions

(3) The editor of mathNEWS should be
(a) responsible for the journalistic quality of all articles that are published
(b) responsible for getting a paper issued every other week
(c) able to eat his own weight in pizza

(4) mathNEWS editorials should
(a) have a positive outlook: give credit where due, and offer constructive criticism when needed
(b) have an apathetic outlook: report the news, but that's all
(c) have a negative outlook: forget the good things that are being done, and destructively criticize everything else

If you answered (a) to all the above, score 25 x 4 = 100 points. You should be editor of mathNEWS.

If you answered (b) to all the above, score 10 x 4 = 40 points. You have definite potential -- you either are a past editor of mathNEWS, or else you, in time, could become one.

If you answered (c) to all the above, score 0 points. You are probably the current editor of mathNEWS.

The above test is just to underline that you don't have to know anything about journalism to be editor of mathNEWS. You need only be interested enough to participate.

The same is true for any position in every organization on campus... Treasurer of MathSoc, for instance. So let's not criticize persons for unfortunate incidences -- unless it is due to out-and-out incompetence -- but give them credit for their willingness to participate.

Yawn.... a new day approaches... its been a tough nite... 7 pages and no way to cut it down to 6 so....we had to create a few items which is very hard to do at 2am...(we were going to get rid of 'this week' to give us 6 pages but we decided that it would be a very unhealthy move)... Some odds and ends which might interest you....you'll find mathNEWS in the EMS library located between Talespinner and India Weekly....coming soon...there is a move afoot to replace the nice white paper in the terminal rooms with some brown stuff (which one source called "toilet paper")...why??...because it costs 1/7th that of the white stuff.

This issue was produced by 6 people who consumed an average of 5.83 donuts over a period of 8 hours...they also drank their fill of coffee over a period of 10.04 hours.... They were PETE RAYNHAM...our master of prose;RANDALL McDOUGAL.hmmmn;INGRID(rubbing off and on)SPLETTSTOESSER;PAUL LEAR(mastermine of correction);JOHN PFEBLES and DENNIS MULLIN to the dreary end. Our next smashing issue is in MC3011 on Tuesday July 9th. Join us.

**time sharing off at 3.45C on 06/26/74

architect