

Math Society

The Mathematics Society is the official student organization representing both undergrad and grad math students. The purpose of the society is to promote the welfare and interests of the math community in athletic, cultural, social and academic activities as well as being a voice on other campus organizations. If you are registered with the math faculty and have not taken back your society fees then you are a member. The voice of the society is council (mathsoc) whose members are elected from each academic year in the co-op and regular programmes. The president, vice-president and treasurer are elected executive by all members and there are 8 appointed positions; speaker, social director, education director, administrator, internal affairs director, publications director and two mathletic directors. Society members are encouraged to come to the regular meetings of mathsoc to voice their opinions and to speak with their reps.

Mathletics: Teams are supported in the intramural athletics programme which includes basketball, baseball, hockey, broomball, touch football and waterpolo. Recreational team sports such as co-ed broomball, baseball, volleyball and innertube waterpolo are supported. These teams are open to all society members.

Social: Mathsoc sponsors trips, pubs, clubs, weeks and weekends filled with various activities, including a semi-formal. These are a few

examples and more can be done just by asking.

During September an orientation programme is run for those unfamiliar with the campus especially the first year students (frosh). This is a chance to meet the faculty, other students and attend all types of activities.

Publications: Mathsoc publishes annually the Anti-calendar, a compilation of facts and student evaluations of lecturers, text books, material, lectures and the significance of each course offered by the faculty. Anti-cal is provided free to all society members and faculty (first come basis).

One of the best news rags is **mathNEWS**. This is a free newspaper put out weekly if possible by a group of interested students wishing to tell it like it is. These volunteers collect news and happenings in the world of mathematics and are offered the means to present this material.

Education: A computer science club exists with an office, MC3037, in which information can be obtained and resource people found. Many necessary projects are done by the club members, meetings are held and trips arranged.

The mathsoc office is across the hall in MC3038, ext 2324 (or 886-0510). Many things can be found here like cards, chess sets, outdoor games, scissors, staplers, hole punch, pencil sharpener, telephones, mail boxes for mathsoc reps and groups, campus directories, T-shirts, information, consultation or just conversation and

lots of other stuff. If we don't have it we will get it for you. If this is not enough we can even supply card players from one of the many mathsoc residents.

Lockers are supplied at the beginning of each term and are cleaned out by us on the last day of exams each term. There are not enough lockers for everyone.

There is a lounge on the third floor of the Math & Computer Building. A Coffee & Donut Stand is operated in the Non-smoking side weekdays. Besides coffee and donuts, subs, kaisers, soups, tea and hot chocolate are sold. A manager and assistant are selected through applications to run the stand. Then workers are hired to look after it each hour. All positions are paid. For entertainment, music is piped into both sides of the lounge from the MathSoc office where a selection of tapes and records can be found.

Spend a few minutes, hours or all day in the office and get to know us; we want to know you. Know what Mathsoc is and what it can do for you. Participate! We can channel complaints, we can initiate action, we can provide information and entertainment, we can... but we need you and to know what you want. Visit, phone, write—complain to us, complain about us, congratulate us, ask us for help, anything but don't ignore us. The more you do, the more we can do and it is all up to you.

Frosh issue #5
August, 1977

math NEWS



WATSFIC

The University of Waterloo Science Fiction Club, better known as **WATSFIC** has been in existence for well over a year now, and is already beginning to fall apart. The idea was first conceived during the fall of 1975 by Mike Wallis, then editor of SciSoc News, who thought that a university this size really ought to have an sf club. In January of 1976 the club finally got going and until this last summer was quite active. The club is a member of **OSFiC: the Ontario Science Fiction Club** and the **DRACO Film Society**. The purpose for our existence is basically this: *to promote an interest in science fiction on campus and to*

facilitate interchange between sf fans.

One of our activities is sponsoring sf movies with a discount on admission for our members. To date we have shown *City Beneath the Sea*, *Silent Running*, *War of the World*, *Westworld*, *When World Collide*, *Day of the Triffids*, *No Blade of Grass* and others. This is one of our most popular activities and if someone comes around to get it going we will continue it this fall.

We have also published a club fanzine called **Starsongs**, the 3rd issue came off the press sometime last fall/winter. The fourth issue sort of fizzled out, the deadline date was

extended, and extended until it was canceled.

We try to hold regular meetings throughout the term at which we discuss sf, make plans, decide what movies to bring in, produce **Starsongs**, find out about local sf related events, and every now and then we buy-sell-trade sf books (this usually happens when someone going out on a work term realizes they have too many books to take with them). Our first meeting this fall will probably be during the third week of September if anyone can be bothered to put up posters for it.

CSC TRAMP

A Guide to Frosh Computer Services



...or...

All the Computers You Could Want and Never Use

I am sure there are a lot of you out there who are coming to the U of Waterloo because of the *great* computer services we have a reputation for. Well, as a frosh you won't see much of them. In first year you will get the dubious privilege of a **WIDJET** account...as any person who has made it past first year will tell you, one of the worst systems around. It is a bunch of terminals hooked up to a PDP-11 which you edit your programs on and then send to the IBM 360/75. You will find that you will spend most of your time waiting in a queue to have your job run or waiting for your job to be stored on disk (you will not be using cards). For some strange reason your programs, instead of being stored on disk connected to the PDP-11, are stored on the IBM. All the programs you can run from WIDJET are *debug* jobs; in effect this means you can't get any useful amount of time or paper. If you are really lucky you might even get your account valid for *batch* (batch means you submit your job to the computer and it will execute it whenever it gets time, as opposed to time-sharing where you are talking directly to the computer and when you tell it to run a job it starts running it while you wait and you can even talk to it as it runs.) on IBM. This is unlikely, but if you talk to your teacher it is possible. This is more useful, since you can run any OS job, not just a restricted subset. However, your job limits are still so low as to be useless. Besides, with all the timesharing systems around, who wants to run in batch?

If you get a batch account this means that usually you will get an account on **WITS** (for Waterloo Interactive Terminal System), another useless interactive system with a useless editor (an editor is a program through which you type your program into the computer rather than using a keypunch. Your program is stored directly on disk, and the editor permits you to correct errors in your program without having to get a card deck, find the right card(s), correct it, et cetera) which will only let you submit batch or debug jobs to the IBM. In all likelihood you won't get an account until second year on **WYLBUR**, yet another interactive system on the IBM. This on the other hand has a half-decent editor, verbose as it may be.

You may get to use something called **APL** (*Yuk!!*) on the IBM 360/44; there are general use accounts on it (oops...I am told that these accounts have been locked out (i.e. you can't use them)...stingy Computing Centre). But then, even for those who like APL (strange people) this system is running an old version, and I hear rumours that they want to get rid of it. Of course, there is **VM APL** running on the IBM 370, but you are guaranteed not to get a VM account until third year, and not to get one with sufficient resources to do anything until (unless) you become a grad. VM is quite a good system. What it does is simulate a *virtual machine*, it is as if you had your own IBM 370 running exclusively for you. But wow, does VM ever burn up money.

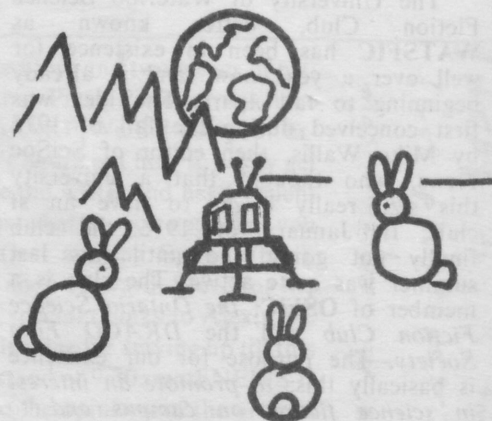
I suppose you are getting tired of hearing about IBM. So there is the most widely used time-sharing system on campus, the **Honeywell TSS** system (perhaps better known as the *bun* (for *honeybun*)). This is the system you will use constantly after first year (you might be able to get your teacher to get you an account). You will use it considerably even if you don't go into Computer Science. It runs on this useless operating system **GCOS** (for General Comprehensive Operating System). Tss is a kludge (a kludge is a form of a patch, it is an extremely stupid and dumb way to do something, you will hear a lot about them in connection with GCOS) it is a batch job running under GCOS. However, you will seldom hear people complaining about the Bun; they will tell you about how it is the state of the art in hardware (We have a new version that hasn't been released yet; we got it for all the programming we have done for Honeywell).

And now we come to a half-decent system (I might even say Great?). This is **UNIX**, an operating system with all kinds of great things that you probably wouldn't understand about if I told you. It is definitely the best system at Waterloo; you won't get a class account until year four, if at all. However, if you go there and find someone in charge they will probably give you an account. (But I hear that they are starting to clamp down on these accounts). Unix, incidentally, is connected up to the Bun and the IBM; you can get and send files and run jobs on them without ever leaving your UNIX terminal.

About all that is left now is the minicomputers in the minicomputer lab. You definitely won't be using these until fourth year, so there is no need to hope.

I might as well tell you about certain people called **Hacks**. These are people who love computers and spend every day of the week playing around on them. If you come in in the middle of the night, on a weekend, or during the day, they will be there, working on their programs and telling people that they are not using the *one true brace style*. (This is in reference to the style of formatting your programs; the one you are taught is **not**, repeat **NOT** the one true brace style. If you wish to get anywhere in computers you must forget the method you are taught (except for assignments) and use the one true brace style.) Anytime you wish to know anything just ask a hack. Unfortunately, these people are found only on the Bun and UNIX; IBM used to have them until the Computing Centre's *charging policy* came in so that students couldn't do anything much on it any more.

And I will just add a plug for the CSC while I have your attention. CSC (in my name at the top of this article) stands for the Computer Science Club. It only costs a buck to join, and we will probably even be able to get you Honeywell accounts this semester. We also have a library of computer manuals and hold regular biweekly meetings presenting Big Names from all over North America. The more people that join, the easier it is to ask for money (of that seventeen fifty you pay to the Feds, some comes to us).



Due to time constraints, we were unable to obtain articles from the Faculty. The following articles are reprinted from last years frosh mathnews.

the Dean of First Year Math

As Director of First Year Studies in the Faculty of Mathematics, I would like to extend a warm welcome to all of you as you embark on your freshman year at the University of Waterloo. We are fully aware that your first few weeks on campus can be rather hectic ones as you adjust to a totally new environment. However, we also hope that you will take advantage of the opportunities to make things as pleasant as possible for yourself. OPERATION MATHSTART, in particular, is intended to assist you in coping with registration and scheduling problems that often face new students. It is also a chance to meet other students and Faculty members in an informal social atmosphere. In addition, your Orientation Package contains all kinds of useful information, and I would hope that you take the time to read through this material with considerable care.

At a large university it is easy to get the impression that nobody really cares about you, and as a result, you can become very much a "loner". I would urge all of you not to fall into this trap. There are numerous people around the Faculty and the campus-at-large who are more than willing to help you get started on the right foot. However, with so many students, it is *your* responsibility to make an all-out effort to meet new friends, contact Faculty members for assistance, and become involved in campus life.

The amount of work facing you in the next few months is probably greater than most of you have ever encountered before. Nevertheless, if you plan your time carefully, you should be able to give your academic studies their fair share of your hours and still have time left to devote to social and recreational activities. There are innumerable activities on the campus to suit everyone's tastes. The secret is to find a good mixture of enjoying yourself and doing justice to your studies. The actual blend in this mixture will depend largely upon individual interests and academic ability, and these vary considerably from one person to another. Nevertheless, it is vital that you devote some of your time to both scholastic and social activity if you are to have a rewarding time at university. I urge you not to delay. **Get involved and start working right at the beginning of the year. Don't wait until 'later'. 'Later' may just be too late!!**

P.C. Brillinger

and the Assoc. Dean of Math

We welcome any opportunity to pass along a word of greeting to our incoming freshmen students and we appreciate the

space given to us by **mathNEWS** for this little message.

Our first comment concerns the Math Society. The Mathematics Society is the official representative of the students of the Faculty of Mathematics, and as such, deserves your interest and support. Its aims are to coordinate the social, cultural, academic and athletic activities of its members. You will be hearing more about MathSoc upon your arrival on campus. Why not get involved?

The Math Society also sponsors the publication of this paper, **mathNEWS**. The Administration of the Faculty often uses the columns of **mathNEWS** to promulgate information of importance to undergraduate students —new course offerings, changes in regulations, new regulations, deadline reminders, etc. **mathNEWS** also keeps an eye on goings-on in the Faculty and provides considerable student comment. This was especially in evidence a year or so ago with regard to a proposal to change the name of the Faculty of Mathematics to 'Faculty of Mathematical Sciences'. So keep reading **mathNEWS** and, if you have a literary bent, volunteer to help with its publication.

We also commend to you the **Operation Mathstart** programme, based on the fifth floor of the Math and Computer Building, and designed to help you during your first two or three weeks on campus. The programme, staffed by senior undergraduate students, runs the week preceding the start of classes and during the first two weeks of classes. If you have any questions regarding course changes, courses in general, the Faculty, the University, or Kitchener-Waterloo, come to **Operation Mathstart**. (If you come during the week before classes, there will be coffee and donuts available and an opportunity to chat with other math students, old and new)

Finally, you have already been sent **considerable information** prior to admission, upon admission, regarding pre-registration and registration, etc. Possibly we sent you too much to be comfortably read. *However there were certain items among this information that are particularly important and that should be read and completely understood.* We conclude by listing these items and their location and exhort you to study them. They are designed to ease your entry into the Faculty and make sure your first year is a profitable one.

- (1) Honours vs. General Math courses—pages 7-9 in the pre-registration package. Pages 7 & 8 in the Circle Booklet.
- (2) Operation Mathstart—Orientation package (wine-coloured page).
- (3) Standings and Promotions Regulations—Circle Booklet (3rd article).
- (4) Early Credit Examination—Orientation package (dark blue page).
- (5) Textbook List—Orientation package (yellow page).
- (6) Course Drop/Add Period—Orientation package (green page).
- (7) Freshman Orientation Meeting—Orientation package (pink page).
- (8) Streaming in Computer Science

courses— page 9 in the Circle Booklet, pages 10-11 in the pre-registration package.

K.D. Fryer

and the Dean of Math

I am pleased to have been asked to welcome you, the incoming freshmen students of the Faculty, to Waterloo.

I am not sure how much you know about the Faculty, but hope that you will be pleased with what you see, and that you will find that senior students, faculty and administrators will be glad to assist you in whatever way they can. There are many things of which we are proud of in the Faculty. For example, our students have won the Putnam Mathematics Competition in 1974, which is written by some 375 Colleges and Universities in North America, when Harvard placed 6th, the University of British Columbia 5th, MIT 4th, CALTECH 3rd, the University of Chicago 2nd, and the students from our Faculty placed 1st. Last year we came 6th. You might also not know that this Faculty won the North American Computer Chess Championship! Perhaps more down to earth, and particularly for those of you who are thinking of taking Actuarial Mathematics, you might be interested to know that half of the top prize winners of this year's Actuarial Examinations were students from our Faculty. Also, for those of you who are interested in the Chartered Accountancy Programme, you might be interested to know that in 1975 all our candidates were successful and 13 of our 19 students were ranked in the first quartile of candidates in the C.A. examinations. There are other things to be proud of, but we are particularly pleased this year that your particular group represents the best group of first year students in Mathematics we have ever had, on the basis of Grade 13 marks, and that your average Grade 13 marks were greater than 80%. Hence, we are expecting great things from you and are delighted to have such an excellent group of freshmen students.

Before too long, various people will impress on you the need to avail yourselves of the many opportunities which are available to you in this faculty and to make sure that, if you have any difficulties, you see someone who can assist you. However, at this time I would merely like to welcome you again, and wish you all a successful and enjoyable time as you begin your studies at Waterloo.

W. F. Forbes



Zap! Zapppp! zzzzzzap!! argh!

LANDSCAPES

To prepare yourself for University the best thing you can do is to go see the movie **Star Wars**. In attempting to see the movie, you will experience what a student at U of W spends most of his first week in: lineups. Everywhere you have to go there will be a lineup. There will be a lineup for registration, the book store, the bank, the loans desk, and the pub.

There is a standard procedure for waiting in lineups at U of W. First stand near the end of the line staring casually at the funny looking buildings or the strange looking people. Soon a person of the opposite sex will join the line. Walk up and join the line. After about a minute, attract the attention of the person of the opposite sex and say something like "How many times have you seen **Star Wars**?" or "What a lovely day, and have you seen **Star Wars** yet?" An old favorite in this situation is to look at them as if you know them, and acting as if you recognize them say, "Artoo Detoo! Haven't seen you since the War of the 12 planets!" (but this is not strongly recommended because it lacks originality). During the two or three hours you spend trapped in the lineup you will undoubtedly strike up a conversation. As you get to the front of the line and find the place actually closed 1/2 hour ago you can make a suggestion like, "How about joining the lineup at the pub?" or, "How about joining the lineup at food services?" or "How about joining the lineup at my bed?" (this last suggestion only works in exceptional circumstances).

Everyone's favorite first lineup is registration since at the same time as paying your enormous fees (you can pay by cheque) you get your Student I.D. card. To establish the "You are one of 100 million people" feeling Universities are famous for, the University gives you an 8 digit number which is your student identification number. Next best lineup is the bank. There is a Bank of Commerce at the Campus Center. Remember that it takes at least 10 days to transfer funds

between any two banks, no matter what the sexy chick at your hometown bank says.

Every frosh wonders what the first day of lectures is going to be like. After seeing the masters of verbal wit the University sends around to snow helpless high school students, one's expectations rises to a level far exceeding actually fact. Therefore presented here is a sceniario of what your first lecture could and probably will be like.

Remember the packed film theater to see **Star Wars**? Well your class is much worse than that, resembling the subway during rush hour. Everyone waits expectantly. Through the door comes an old, worn out man. He wears a pink shirt, brown pants, grey and blue plaid jacket, black shoes, and purple and white spotted tie. He is slightly bald, smokes a pipe, is 30 pounds overweight, and picks his nose. He speaks with a heavy Eastern European accent and even though you are in the second row, you find it hard to hear him, and impossible to understand him. "Welcome tooes Myth vone dirty. I am professor Yack Villams. Your text bok is Come-plex Analysis by Ervin, Vight and Sumerset. It cost ninee-teen doll-ars and nightie five cents at your bok store. Your first a-sign-ment is pages eh-tee vone tooes eh-tee tree. Reads chapters vone tooes four. Today vi vill cover Diffy-rent-tal theree." For the next fifty minutes he scrawls at a mad pace on the board, babbling with his back turned to the class. Unable to follow his mindless antics, you decide to read the book and figure out what he is talking about. Little do you know that the book is worse, seemingly totally written in ancient greek.

Not all first year professors are this bad; only about 60% of them are. To teach first year is considered a horrible insult and is only reserved for the

driftwood, burned out minds, or lower caste of the faculty. If you get an incompetent fool for a course, switch into another class. But be forewarned, in only about 50% of the courses will you get a better professor than the last.

People in University tend to enter one of three groups. The only group the faculty pays attention to are the people like them. This group of people think of their degree as a stepping stone towards their Masters or Phd. The second group are there to get their degree, as a method of getting a good job, while having a good time (and/or getting married). The third group flunk out.

In my considerable time here I have noticed that the main cause of people flunking out is emotional reasons. Life at University is a time of great growing up. For many it is the first time away from home for a long period. The stresses of piles of work, exams, money problems, and personal troubles will affect one's physical and emotional health. Whether one gets his degree in University is not only a matter of intelligence but a matter of how well one handles the stresses of University life.

Where one was rated exceptionally smart in high school, one here is only highly intelligent. Fifty percent of the Math students entering have an average above 75 percent. Trying to impress you professor in a class of 300 other smart people is a no-no. And if you think the mid-terms are a walk, wait till you try the finals.

I hope you enjoy your stay at the University of Waterloo. Don't get too disappointed when you find the ivory towers are not so white inside. Be seeing you.

-mjd

Welcome to the gridword page. Only *frash* can win this contest this time.

Rules: Fill in the gridword as best as you can (filling it in correctly is your best bet!). Then you submit the grid (or copy thereof) to **mathNEWS** by one of the following methods.

1) Mail it to:

mathNEWS,
MC 3038,
University of Waterloo,
Waterloo, Ontario.
N2L 3G1

2) Stick it in our mailbox on the 3rd floor of the Math & Computer building across from the lounge.

3) Hand it in at the mathSoc office on the 3rd floor (M&C 3038).

The deadline for submissions is September 20, 1977. The winner will be selected at random from all correct entries. The winner will then select their free t-shirt from the mathSoc supply.

DOWN

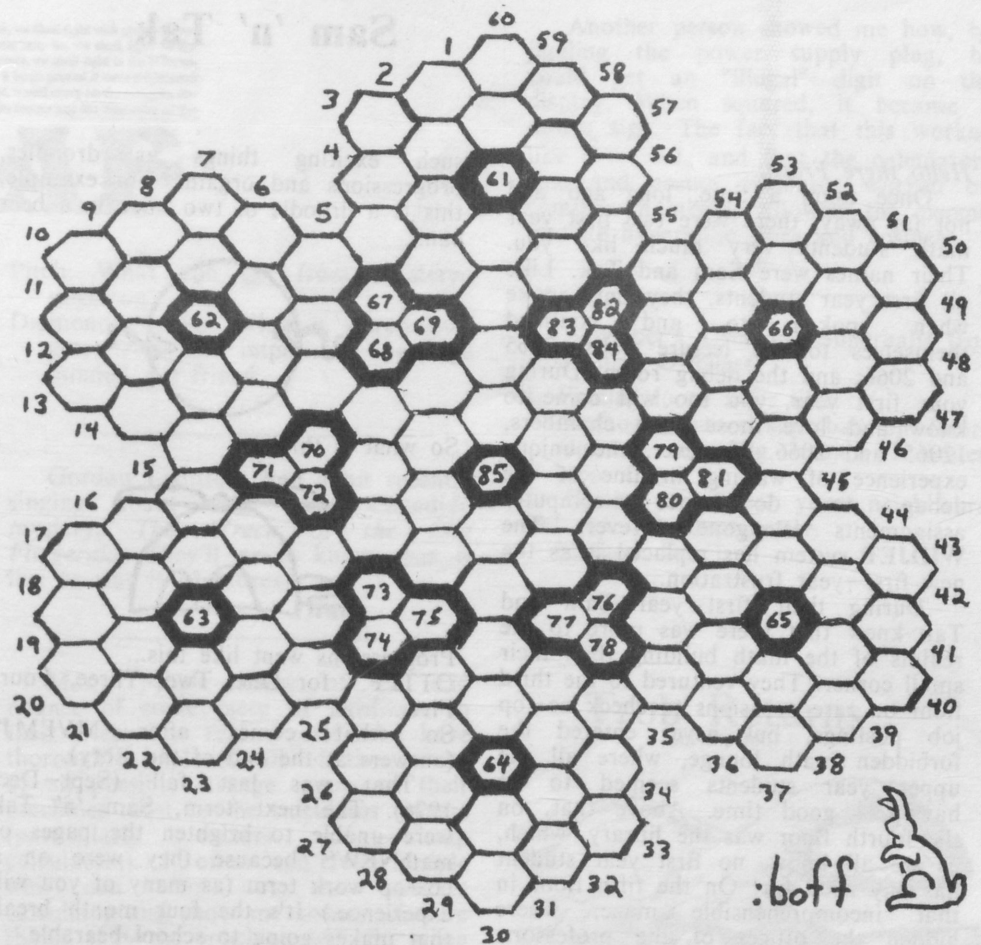
- 1 helping of pineapple
- 2 equal (prefix)
- 5 Toward The End
- 6 morally lax
- 8 experience
- 9 apartment
- 15 is a registered nurse
- 16 a measure of yarn
- 44 stamp
- 45 useless faculty?
- 51 sainte
- 52 derby, kepi, fedora, ...
- 55 computer game
- 58 sad—deranged
- 59 down memory _____
- 61 cookee
- 62 serves
- 64 see 33(UL)
- 66 river in Zaire
- 69 a type of fall
- 71 boating implements
- 72 grain
- 74 supersonic plane
- 75 elevator company
- 78 all right
- 80 age—deranged
- 81 European vipers
- 83 banyon, acacia, linden, ...
- 85 a scheme

UP

- 23 atomic weight 73
- 31 brick oven
- 37 atomic weight 22
- 61 exists
- 62 behold
- 66 atomic weight 58
- 73 3/5 of Italy
- 76 ox command
- 81 THE _____ IN GOD'S EYE

DOWN RIGHT

- 1 Patty's gang
- 3 computer operation
- 4 type of gin
- 5 over
- 8 often
- 9 level



- 10 _____ Loyalist
- 11 a place to sit
- 12 Old Testament priest/judge
- 15 of French gold
- 16 what the Englishman said
- 17 least squares
- 18 ages
- 19 he likes picnics
- 25 decline
- 26 expression of disgust
- 61 no do not remove "o"s
- 62 harden
- 63 balance
- 65 half a french head
- 66 the other half of 65(DR)
- 68 skin opening
- 69 tee—deranged
- 70 weed
- 72 native ending
- 75 genetic acid
- 76 sacred Egyptian bull
- 78 the most
- 80 airy
- 81 boy
- 82 promissory note
- 84 Honeywell fault
- 85 incites

UP LEFT

- 33 with 64(D) quirk
- 34 margarine
- 48 plate armour
- 49 pronoun
- 55 spoke

UP RIGHT

- 4 libidos
- 5 dirty

- 11 space ship
- 12 me
- 13 2 Easy
- 14 shoemaker's form
- 15 chemical ending
- 18 put the cap on it?
- 19 tiger tankers
- 21 not one
- 22 with 36(UR) African fly
- 25 turf
- 26 type of gun
- 28 Chinese prefix deranged
- 29 burning crosses anybody??
- 36 see 22(UR)
- 61 alc. anon.
- 62 coral island, non—redundant
- 63 melody
- 65 rotcod road
- 66 used in similies
- 67 long times
- 69 primary color
- 70 mimic
- 72 _____sky
- 73 pedigree
- 75 brain record
- 76 girl
- 78 on the bounding main
- 79 dog
- 81 native ending
- 82 made in name ???
- 84 scratch it!
- 85 Honeywell command

DOWN LEFT

- 42 it is a dead giveaway
- 63 atomic weight 88
- 64 pronoun
- 65 thunder sound

Sam 'n' Tak

Hello there Frosh:

Once upon a time, long ago and not far away, there were two first year math students very much like you. Their names were Sam and Tak. Like all first year students, they only spoke when spoken to and confined themselves to the lecture halls, 2065 and 2066; and the debug room. During your first year, you too will come to know and love those echo chambers, 2065 and 2066. However, the unique experience of waiting in line at the debug to do your computer assignments is gone forever. The WIDJET system has replaced it as the new first-year frustration.

During their first year Sam and Tak knew that there was more to the realms of the math building than their small corner. They ventured to the third floor on rare occasions to check co-op job postings, but never entered the forbidden math lounge, where all the upper year students seemed to be having a good time. Above that, on the fourth floor was the library, which, as we all know, no first year student has any need for! On the fifth floor in that incomprehensible maze, where hidden the offices of the professors. But as you all know, no first year student can muster up the courage to go talk to a prof in his office! Who knows what was on the sixth floor! (except the inevitable pigeons).

It was during the first that Sam met Tak and vice-versa. They both managed to complete a successful but uneventful first year. (as most of yours will be.)

Nothing much happened in second year except **STATS** and the fact that Sam and Tak both managed to muster up the nerve to enter the math lounge, which they realized in retrospect, was no big deal. You might as well try it in first year!

In third year, they became even more daring! After reading a number of uninspiring issues of **mathNEWS**, they decided that they could do a better job. Thus was heralded the birth of *Sam 'n' Tak!* A new era in **mathNEWS** had begun. Their two-year mission was to boldly go where no **mathNEWS** columnists had gone before; to seek out and explore new formats to tickle the readers' fancies.

Their first column was entitled *Kiddie Korner*. It was an instant smash success, because it was directed at the level of intelligence of the entire Math Faculty. The column contained

such exciting things as doodles, progressions and orgami. For example, this is a doodle of two mice in a beer can...



So what is this?



Progressions went like this... OTTFF... for One, Two, Three, Four, Five,...

So what comes after MVEMJ? (answers at the end of the story).

That was last fall (Sept-Dec. 1976). The next term, Sam 'n' Tak were unable to brighten the pages of **mathNEWS** because they were on a co-op work term (as many of you will experience.) It's the four month break that makes going to school bearable.

The return to campus in May 1977, marked the beginning of a new chapter in the life of Sam 'n' Tak. Not only did they start a new column, but they also got up the courage to go into the Math Society (MathSoc) office, which was also no big deal. As frosh, you might want to drop by if you have a free moment, which you undoubtedly will. The office is in room 3038, on the third floor. You'll find the people there are friendly and you might even be able to lend a hand.

Now back to our story. Sam 'n' Tak had outgrown Kiddie Korner, so they decided to write *Dear Sam 'n' Tak*, a column of advice to the mathie lovelorn. But, alas, the intellect of the math faculty remained at the kiddie level. Needless to say, the column was not a success.

So they returned to the trivial level with *Sam 'n' Tak's Trivia*. The column covered trivia in such fields as Television and sports. Here is an example of mathematics trivia... What colour is the math building?

What colour is it when it's wet?
What is the red room? What colour is it?

What happens when it gets wet?

That brings us up to the present. We've come a long way from nobodies in first year to being nobodies in

fourth year, but working for **mathNEWS**. As you've probably guessed by now this is Sam 'n' Tak. (after all who else would write a story about us!!) It gave us great pleasure to hear that no frosh issue of **mathNEWS** would be complete without a contribution from us. We hope this article will allay your fears and even inspire you to come out to a **mathNEWS** meeting. Who knows? In three years, you might be able to write your life story for a future generation of froshes. Good luck in your first year!

Sam 'n' Tak

answers: the doodle is a fat lady washing the floor. The next letter in the progression is S for Saturn.

CAVEAT PUELLAE

by Richard Felton

"Beware of Engineers!"
Said mother in tears.
Her daughter, she ignored what she had heard.
"They'll adhere to your rear!
They will grab at your brassiere!";
But the daughter thought her freedom now secured.

At her mother she did sneer;
To the campus she did steer;
Then she drove on to the residences there.
Not being too austere,
Her see-through blouse was sheer.
Outside her car she wouldn't have a prayer.

Now news travels quickly here
Through the campus atmosphere
And before her foot was even out the door,
Each and every engineer
Who did the female form revere
Was off and running faster than a meteor.

The next day, all they found
Were the marks on the ground
Of thoses student's tongues which had been trodden on.
Then there was one other clue
Which I shall relate to you;
That's the smile you've seen on engineers anon.

We shall go on to the end, we shall fight in France, we shall fight on the seas and oceans, we shall fight with growing confidence and growing strength in the air, we shall defend our Island, whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender, and even if, which I do not for a moment believe, this Island or a large part of it were subjugated and starving, then our Empire beyond the seas, armed and guarded by the British Fleet, would carry on the struggle, until, in God's good time, the New World, with all its power and might, steps forth to the rescue and the liberation of the

BURLOAF

Reality is an illusion brought on by a severe deficiency of alcohol.

The world of stereos and music reproduction systems is replete with big important sounding terms which are all probably very confusing. To help clear things up, here is a short glossary of hi-fi terms.

Hi fidelity: What the stereo buff gets from the new sound system with which he is preoccupied.

Low fidelity: What the stereo buff gets from his/her mate while being preoccupied with the new sound system.

Loudspeaker: A person who talks while stereo is on.

Woofers: A dog who talks while stereo is on.

Tweeter: A shade stronger than tweet.

Bass: A fresh water fish.

Tuner: See Bass.

Amplifier: What you get when you ignite an ampli.

Ohm: Where a stereo buff sets up equipment.

Pickup: Someone to listen to the stereo with.

Wow: Listening to the stereo with loose pickup.

Flutter: Reaction during wow.

Resistor: What you should do with a loose pickup.

Pitch: What you get from a stereo salesman.

Diamond Needle: What a stereo buff gets from an impatient, marriage minded girl friend.

Gordon Lightfoot had a hit recently singing about that great Canadian mystery, *The Wreck of the Ella Fitzgerald*. They'll never know, was it live or was it Memorex?

Many people know of an odd nuance of some piece of hardware in their lives. The real experts who have thoroughly explored all of the results of all possible strange inputs to their machines must be the calculator owners (particularly owners of cheap calculators). I often run into people who can whip out their pocket calculator and show me sixteen obscure things that the machine will do when fed in sequences of keystrokes the manufacturer never dreamed of.

One person explained how, by hitting the square root key at the point where it was obviously a silly thing to do, the multiplication constant became an additive one, and the display could be gotten to alternate between *HELLO* and *LESLIE* by tapping the minus sign.

Another person showed me how, by jiggling the power supply plug, he could get an "illegal" digit on the display. When squared, it became a minus sign. The fact that this worked like $i^2 = -1$, and that the calculators sine and cosine evaluator worked on complex numbers, allowed the person to take hyperbolic sines and cosines.

Arpepper's Uses for Superballs (for Apartment Dwellers)

1. Finding loose floor tiles.
Method: Bounce superball on floor. *Rattling* sounding bounce indicates loose tile.

2. Getting to know your neighbours and superintendant better.
Method: See 1.

Trob Returns (in the fall)



1,1

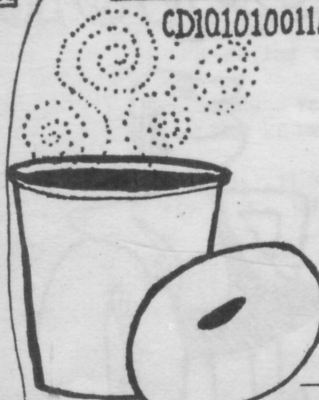
LEFT BANK OF LAUREL CREEK - BANQUE DE LA RIVE GAUCHE LAUREL

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VECTOR SPACE OF DONUT X COFFEE



C&D

NOT LEGAL TENDER FOR ANY DEBTS, PUBLIC OR PRIVATE
OFFER VOID AFTER SEPT. 15

A Long
GOVERNEUR

WATERLOO
1977

Kandry
KERNEL



QUÉBEC
RESIDENTS
ADD
10%
PROVINCIAL
SALES
TAX

FROSH COUPON

1,1

PAY TO THE ORDER OF 1 FROSHIE ONE DONUT AND ONE COFFEE UPON DEMAND.
ANY OTHER USE OF THIS COUPON CONSTITUTES FRAUD AND IS PUNISHABLE BY DRINKING
5 CUPS OF DRY-OLD C&D COFFEE.

1,1

J.J. Long

Most of you have never heard of the Federation or fed rep J.J. Long. Therefore an explanation of the Federation and the political situation on campus is needed to prepare you for the coming events over the next few months.

The Federation of Students is a non-profit corporation that serves as the students' union at the University of Waterloo. All students are members of the Federation though only full-time undergrads pay fees. The Federation is governed by a Students' Council that is elected from the various Faculty constituencies. Various different groups and caucuses try to elect their candidates to the council, though there are no official political parties. The Math Faculty has five reps on Fed Council. Besides myself there is Doug McDougall, Steve Risto, the soon-to-be-retired Bruce N. Mills, and Ron Hipfner (who also serves as acting president).

Over the past year controversy on this campus has concerned the once-free, now \$15300 Chevron. The Chevron is the so-called student newspaper of the Federation. It was supposedly closed last September 30th by the Council led by then-President Shane Roberts. At the same time the paid positions of two Chevron employees were terminated. The people who worked on the paper decided to produce a paper without student

money. The Chevron people though, soon wanted money so they demanded *reinstate-investigate*. This demand entailed paying for the salaries of some of the workers of their paper and the Federation paying the back debts of their paper.

This conflict raged on for nine months. During this time Shane Roberts was recalled (removed from office by petition) mainly because of the work of Chevron people. The people producing the unauthorized paper occupied Federation offices, were removed from the offices and later reoccupied the offices. A new president Doug Thompson, and his Campus Reform Group were elected to council on an anti-reinstatement platform in February. Due to opposition pressure, mainly from the acclaimed Chevron people on Fed Council the CRG ran into trouble. Eventually the Chevron people received their reinstatement with a \$15300 payment and with AIA (a communist party on campus) member Niel Docherty as editor. Thompson left the presidency in July forcing an election in the fall. As Thompson left it was not known whether he quit or was fired.

One reason for the original closing of the Chevron was AIA influence on the paper. Since the paper was "closed" however, AIA strength has grown to the extent that they may be able to elect a sympathetic Federation president this fall. Hurting the AIA though is their far-leftist policies, and the fact that the two biggest and strongest student societies on campus, Math and Engineering oppose them. However the Engineers also oppose the Federation. Not unlike Quebec their president talks of seceding from the Federation. They also want Federation fees to be refundable instead of compulsory for

full-time undergrads as they are now. As for the AIA, I would not like them to take over the Federation; I often wonder about their level of intelligence. In regards to refundable fees, they may be a good idea, but I would not want to rush into them headlong. This fall there will be elections for Federation president, at least one Math Fed Rep, and on whether to have refundable fees. I hope you will vote and get involved in these elections, and not be like the apathetic students of the past. After all, to work the way you want it to, your Federation needs your help.

It's only for one year (Hopefully!!)

Don't worry about being a froshie as it only lasts for a year. And remember all those who aren't froshies were, but as they get older their minds fail them so they don't remember the good times of first year. When there's no work and plenty of pubs to attend where you meet everyone. At first, with the big classes, weird profs and no familiar faces around, it can be disheartening. Just remember that everyone in your class (well, almost), is just as lost as you are.

I hope you enjoy your terms and if you get bored, lonely and want something to do come into the MathSoc office (MC3038) and meet some weird and wonderful people (that's how I got mixed up with this bunch!!). Their main occupations are playing cards, and pubbing so it won't be hard for you froshies to fit right in here. See you in the winter.

Samm

C&D



C & D (Coffee and Donut) stand, is a club under MathSoc which provides food and refreshment for students and faculty. It is a non-profit organization, run entirely by students. It currently provides: Donuts @ 15¢, Beverages including coffee, tea, hot chocolate and soups @ 20¢, subs @ 95¢, kaisers @ 70¢ and soft drinks @ 20¢.

During orientation week and the end of each term, C & D normally offers a buffet which is open to all math students.

For students who are interested in picking up a little extra dough, C & D provides part time jobs for \$3.00 per hour.

C & D is located in the third floor Math Lounge. Don't be afraid to come in here, and as an Introductory Offer to frosh, here is a coupon for one (1) free coffee and one (1) free donut.

Q.P.O.R



SEE REVERSE SIDE

DEFINITIONS

In the next few months you will hear of many words and names. Most of you will not be at all sure of their meanings. So **mathNEWS** has provided this glossary of commonly used words at Waterloo.

Federation of Students: U of W student union, all students are members.

Math Society: Great organization representing students in the Mathematics Faculty.

Engineering Society: Similar organization for Engineering students, major rivals of Math students.

(Most other faculties have their own societies or "socs")

Chevron(free): Paper produced from last October to June by workers of the chevron newspaper.

Chevron(Real): Paper produced from last January (?) to June by Feds to compete with the Chevron (Free).

Reinstigate—Investigate: Slogan yelled by members of free chevron staff.

Remonstrat—Instigate: Slogan yelled by those who hated the Chevron (Free).

Chevron(\$15000): Radical student newspaper paid for by Federation of Students, yet controlled by the AIA.

AIA: Secret left-wing Maoist organization affiliated with the Communist Party of Canada (Marxist-Leninist).

CPC(ML): Communist Party of Canada (Marxist-Leninist). Members tend to make a lot of noise.

Neil Docherty: Chevron editor and AIA member.

Doug Wahlsten: AIA spokesperson and Psychology prof.

Shane Roberts: Federation President during the "closing" of the chevron, later recalled.

Recalled: Removed from office by a petition of the students.

J.J.Longe: Pen-name for veteran Federation and Mathsoc rep J.J.Long. Also known as the nose. Currently in 2L semester.

Doug Thompson: Recently retired Federation president. (also known as Thug Thompson)

Ron (*Hugh* or Hexad) Hipfner: Math student who is interim Federation President.

mathNEWS: What you're reading now, financed by Math Soc. Pretty bad if froshies don't come out to help us.

Engnews: Off-colour monthly newspaper produced by Eng Soc. Obscene and rascist. (but good to read).

Gazette: Well-written UW Administration newspaper.

Hot-crossed Bun: The Duke of Earl of Bunwich when he is criticised.

Duke of Earl of Bunwich: Title of Bruce N. Mills, the anti-social director of Mathsoc.

N-Juneers: The number of Juneers (also known as engineers) one must put together to get a functioning brain.

C&D: Name for "non-profit" food stand operated by Mathsoc, that earns over \$200 a week.

John Lee Hooker: Nickname of John Lee, a Science Grad student, who edits the SciSoc news and sometimes writes for **mathNEWS**.

C.C. Pub: Major drinking establishment on campus, located in the Campus centre.

Chevrag: What most students think of the Chevron.

Sam 'n Tak: **mathNEWS** writers Sam Veffler and Rick Takashima.

Samm: Nickname for Mathsoc executive Rosanne Ristitch.

Larry Smylie: Well-known 47 year-old student council rep from Renison College.

Quite Frankly: Two of Smylies most commonly used words.

CSC: Computer Science Club.

CSC Tramp: Pen-name for A.R. White, a CSC member.

Free Photon: A phototypesetter donated by the Star.

Real Photon: The phototypesetter that **mathNEWS** is typeset on.

Hack: Person who spends more than thirty hours a day on a computer.

Fed Hack: Person who spends more than thirty hours a day in politics.

Bombout: What happens to all MathSoc events due to lack of attendance by frosh.

MTHel 100: A bird course.

PHIL 140: A used-to-be bird course.

Bird Course: A course that a bird could pass. Also known as a Mickey-Mouse course.

Prez-Ass: Presidential assistant. More often known as a presidential ass.

Acclamations: Elections in which only one person runs for each seat. Usual for all MathSoc positions.

Fortrash: Computer language, obsolete but still used by people not smart enough to learn a decent language.

Watifv-S: See Swatifv.

Swatifv: Disgusting perversion of fortrash.

APL: Not a decent language.

B: A cheap version of C.

C: A decent language. (nearly).

Crash: What computers do.

Down: What computers usually are. This usually means an extension of your computer assignment.

Johann George: 17 year old student, **mathNEWS** editor and hack.

The 75: Popular name for IBM 360-75 computer.

Red Room: Large room on first floor of Math Building where the 75 and other large IBM computers are kept.

3-sickly: Affectionate name for the 360.

Unix: Computer system on sixth floor running on to a PDP 11-45.

'Bun: Popular name for Honeywell computer located on the third floor.

WIDGET: Too awful. I don't want to talk about it.

Watiac: Worst computer ever simulated. Interpreted by a COBOL program. Grinds terribly.

Grind: What computers do when you run big, stupid slow jobs that want a lot of CPU time.

CPU time: What grinding jobs want.

All-nighter: Spending all night to do your assignment.

%%&%&%\$: Swear words. Usually used during an all-nighter.

Anti-Cal: Also known as Cal⁻¹. Tells everything you wanted to know about a course. Put out by MathSoc.

Tutor: Someone who mixes you up.

Food Services: Rip off joint, main product is money (to them, not you). Recently implicated in a tainted meat scandal.

Food Services Steakette: 100% cereal. Guaranteed not a trace of meat by-products.

%&%&%&%\$: What you eat in the village or at food services.

Withdrawal: What you can no longer do after the drop date when you find that you are failing too many courses.

\$\$\$\$: What you need to remain at university.

cccc: What you will get when you finish.

Referendum: To tell the federation what you want.

Boycott: To tell the federation that you didn't tell them what you told them.

RJB: Who you should not criticize if you wish to keep your 'bun account.

Apathy: What all students except fed hacks have.

Kanteen of Kanada: the company which supplies the vending machines.

Vending Machines: Perhaps better known as the Third Floor Gambling Machines. Probability of getting what you try to buy is 30%.

Third Floor Lounge: Also known as the Third Floor Gambling Casino.

Klingon: What you fight when playing Star Trek.

Star Trek: What to play on the 'Bun when you are bored.

CRG: Campus Reform Group. Perhaps better known as the Chevron Removal Group.

Drop Date: Date by which you must drop a course before. Methods of dropping courses after this date are few, most involve spending several months in the hospital.

CSCFLASH

The CSC is the Computer Science Club. It is two clubs in one, the CSC itself, and a student chapter of the Association for Computing Machinery (ACM). The ACM is a learned society concerned with aspects of computer science. It publishes many journals which you as a frosh might find too advanced, but will be useful in upper year computer science courses.

The CSC has an active speaker programme, and has six meetings planned for the fall term.

At our first meeting of the term on September 15th we elect the executive. We hope to have Professor J. B. Moore giving a talk about Computer Aided Instruction (CAI). Prof. Moore is in charge of a local CAI project concerned with university level instruction. The CSC is able to get some of the important names in the field of Computer Science as speakers. We have an agreement with the Computer Science department that allows us to invite some of these interesting people.

Aside from its speakers series, the CSC encourages new people on campus to become familiar with the computing facilities available for use apart from first year course work. This fall, we will be able to obtain Honeywell timesharing system accounts for members. We encourage learning in the Computer Science area, and to this end we have some project ideas for members to carry out in their spare time.

We hope to have a CSC field trip some time in October visiting Air Canada's computerized facilities. These include flight simulators, and an automated baggage retrieval system.

The CSC has its office in MC 3037 across from Mathsoc. In the office we have many manuals and periodicals which can be borrowed by members. At our first meeting memberships will be given. The charge is \$1.00 for the term. This is used to defray the costs of coffee and donuts at CSC meetings.

During your first week here at UW, come down to the CSC office. Meetings are usually held every two weeks. Look for posters on the 2nd and 3rd floor advertising upcoming meetings.

"But I don't want to go among mad people," Alice remarked.

"Oh, you can't help that," said the Cat: "we're all mad here. I'm mad. You're mad."

"How do you know I'm mad?" said Alice.

"You must be," said the Cat, "or you wouldn't have come here."

Welcome Froshies!

Many of you, as frosh, do not realize that upon entering the Faculty of Mathematics at the University of Waterloo, you are walking into one of the most prestigious societies in Canada, for just not anyone can become an *official* University of Waterloo *Mathie*.

However, the initial shock could be terrifying if you are expecting a normal, free and easy, lifestyle. So heed ye all of these precious words of wisdom. One of the first obstacles you will encounter is yourself. You are a frosh and there is no lower form of life on any campus than a froshie. But be consoled in knowing that you are a *Mathie* frosh and that places you in the 'high' of the low of campus life.

Your second most deadly encounter will be the engineers here. These beasts of burden have been programmed and/or threatened into a life of egoism, beer, sex, and women (in that order). But don't worry. As you gain experience in the *Mathie* life you learn that these poor assholes are only looking for attention. Sometimes during the term you will be given the opportunity to teach an engineer to count to three without his calculator during *Be Kind to Engineer* week. This past summer, a few good samaritan type mathies succeeded in giving some engineers the experience of smelling pretty again. Rumour has it they've quit Waterloo U. and gone back to their old ways on street corners in big TO. You will also meet artsies, jocks, sci's, environMENTAL sci's, and integrated studs on campus (not to mention the AIA, CPC(ML)). No advice is needed here as these groups are potentially harmless with exception to the radical, political parties, and most have severe respect for *Mathies*.

The next rude awakenings you will meet are MC2065 and MC2066. These monstrosities are merely 2 lecture rooms in the Math and Computer Building. This being your frosh year, most of your classes will be held in these two rooms, amidst millions of other frosh (would you believe 300?). You are only an occupied seat to the master of assignments and midterms, commonly referred to as a professor. But don't let this person intimidate you. Professors have been known to exhibit human-like Characteristics, and they're approachable.

Your fourth warning: Beware of WIDGET. Widgets are terminals you will be using to complete your computer assignments. They are generally friendly creatures, but have recently undergone conflicts with the great red pit (Computer Center). As a result, you will be spending many frustrating hours with WIDGET this term.

And so these few select warnings should prepare you for the worst. If you come across any difficulties, do not hesitate to drop into your all too friendly *MathSoc* office on the third floor.

If you take an immediate dislike to a class, check the antical in the Mathsoc office. This Calendar is a summary of course evaluations done by students who have already taken these courses, grading them by course content, professors and expectations. Also if you're planning on getting involved in any form of physical fitness, be on the lookout for times that lockers are given out at the PAC. It is done on a first come first serve basis.

So straighten up those shoulders, suck in that gut, hold that head high as you are now representing the *Math Society* and that surely is a feat that time only will test.

Diana Flis
1B Class Rep.

Something to think about

I married a widow who had a grown up daughter. My father, who visited us very often, fell in love with my step-daughter, and married her. Therefore my step-daughter became my step-mother and my father became my son-in-law. Several months later, my wife gave birth to a baby-boy, who became my father's brother-in-law, my uncle as well. The wife of my father, who was also my step-daughter, also gave birth to a baby boy. As a consequence, I had a grandson and at the same time a brother.

My wife is my grandmother since she is the mother of my step-mother. Therefore, I am my wife's husband and at the same time her grandson. In other words, I am my own grandfather.

All you frosh must have a pretty bad impression of what university is like. Well your impression is fully justified. No, seriously folks, there are a lot of interesting people to meet, and things to do (like working on *mathNEWS*). Come in to a production meeting sometime. They are usually held on Tuesday nights at seven o'clock in *MathSoc* (MC3038). Thanks to Andy KF Mueller, one of the few presidents who gave in an article. David (Boff) Newell, Peter (Flash Puff) Stevens, Sam C. Veffler 'n' R. H. takashima, Allison (Canowlan), for her pretty drawings, and Steve (Spie) Harvey for his, J.J. Long for his biased article on student politics.

Kandry Mutheardy for teaching us about survival in the wilderness and for his signature on the C&D coupon, Rosanne (Samm) Ristische, I really like Rosanne much better, Diana Flis, for being the only one to turn up with her article when she told us she would, Glen Ashton (wanna go see *Star Wars*?), and Peter Raynaham, after a long absence, it was good to see you back. And thanks to R2D2 and C3PO for breaking down before they could make any more blunders. Have an enjoyable frosh year and don't forget to drop in some time.