

let the reader beware:

This is the **INFAMOUS FROSH ISSUE**

This is the third annual Special Issue of mathNEWS in which we try to tell you what it's really like at the math faculty of UofW (or as much as possible without frightening you away). After all, now that you're no longer a C.S.D. or J.M.C. and have become a B.I.U. like everyone else, you have a right to know. Any way it's late for you. This is also (if I can still add ... an ability you lose quickly here ...) our seventieth mathNEWS ever published. With this we conclude our eighth full term of publication. So now, without further ado, we present our Fright-Fraught

Frosh

Issue of

mathNEWS

Special Issue #3
Summer '75

The Who, What, Wherefore
& Why Not:

mathNEWS hi strionics

Two and two-thirds years ago there was no math newspaper. There was a one page pamphlet called "math small" which had little to do with math and occasionally typing and/or writing on both sides. It appeared infrequently, but every few months you might beat one in its race to the garbage container, if you were desperate. As a result mathies were reduced to reading the Gazette (the faculty's weekly) or even (!!!) the chevron (the Fed. of Studs weekly roam thru reprinted radicalism). The other societies had non-weekly papers such as Enginews, a monthly (sexist, racist or just vice, take your pick, it's been called worse) or the Bard, the SciSoc occasionally monthly paper (the best in reprinted cartoons plus engineer jokes). Arts doesn't count, of course, they didn't even have a society. This was changed in early January of '73 by Steve Treadwell (then "caretaker" president of MathSoc) who is now in England taking his Ph.D. The first indication of the change was a deluge of pink posters proclaiming a "math newspaper organization meeting". So Jan. 17 about eight people came out, probably to find out what an "organization" was. Only one of us had any experience and after giving us some invaluable pointers for our first few issues (which we forgot as soon as he left) he left. We intended to use the Administrative Terminal System (ATS) to format everything for the first issue. However, when we tried, we found that it was going down for the night. In desperation we turned to Math's newly installed HIS 6050. A positive JOY to work with!! Since we had no file space to save things, we had to use the same terminal for the entire article whether the terminal worked or the ribbon was dark enough or not. It also meant you had to finish

between system crashes or bye-bye-article (in those days the system went up and down like a spastic yo-yo). We were also stuck with an incredibly primitive text formatter (the thing that right and left justifies the columns). You could tell when the new formatter (ROFF) was installed by reading mathNEWS, that was the issue we started indenting the beginnings of paragraphs (in fact it was 2 years ago in our first special frosh issue).

As for our layout, we don't use newsprint because we wanted a weekly which meant the more professional layout was just too expensive. Anyway the Chevy and the Gazette are still the only other weeklies on Campus and it is distinctive. If the type looks a little small it's because, with our 4th issue, we found it cheaper (and looked better) to have the masters reduced when printing (to 80% actually).

Since those formative days mathNEWS has gone through many minor changes under a number of editors. Steve left us that term to work as V.P. of the Federation and was replaced, by process of osmosis, with John Peables. Marsha Tatebe took over that summer (women's liu strikes again). John then held the post until his graduation last year. Since then the editorship has alternated between the only two active survivors of the original "organization", Dennis Mullin and Randall McDougall. However, despite an almost legendary lack of workers we have turned out a good number of memorable and sought after issues (and sought after by just about everyone too ...). In fact enough people felt so strongly about missing their copy while they were away that we had to introduce a paid subscription (paid, to cover envelopes and postage) last summer. This summer we have well over 50 subscribers.

So now you know something of the what, why and how of mathNEWS. We hope you enjoy it.

Randall S. McDougall

Summer-Editor-by-Default

JJ'S fed REPORT



As Math Federation Rep I'd like to welcome you freshpersons (as official Federation terminology calls you) to Univat. Also I welcome back the returning students and mathNEWS subscribers who have had the enjoyment (?) of reading my regular FED REPORTS for the last year and a half.

You (and that includes upper year students) may wonder what the Federation is. Hopefully the following explanation will suffice.

The Federation is a legal entity incorporated in 1967 to represent the interests of all Waterloo students. It has a Provincial Charter and Articles of Incorporation which outline its goals and purpose and like any corporation must abide by Ontario corporate laws. Besides this the federation has various legal contracts with the university and other legal types and a set of bylaws (27 of them) which form a constitution. These bylaws are passed at general meetings which are held at least yearly where all dues-paying members (in effect "the shareholders") (which includes all full time undergrads) may attend. Your dues to the Federation are a compulsory \$13.25 per term. Also at least once a year, students are eligible to vote and run in general Federation elections for the President (elected at large) and the Students' Council (elected by faculty or college constituents). You can also apply for any appointive position. The Council sets all ongoing federation policy and passes all bylaws and resolutions of the organization. It appoints the executive and, from the Council the Board of Directors is formed. (However, at any time Council's action may be questioned by the students if they call a referendum, general meeting or recall members)

The Executive is composed of the President, VP, Treasurer, Speaker, and Board Chairpersons who run various aspects of the Federation - i.e. Entertainment, Education, Communications, Publications, and Creative Arts. In addition, a number of full or part-time staff, both permanent and temporary is hired to physically run the corporation's daily affairs.

As well each Faculty like MATH, n-jineering, and Arts have a students society to run the affairs of the students in that faculty. They operate on a smaller scale though similar to the Federation. In a sense, Mathsoc would compare to the Provincial Government, though cooperation is much closer here than in the Government.

There are many ways one can get involved in the Federation. Be an employee on a part-time basis; working at the ice-cream stand, be on a concert stage crew; put up posters. You can volunteer; help the Chevron; Radio Waterloo; the Board of Education; or the people in the Federation office. Support Federation activities; concerts, pubs, used bookstore, etc. You can help the Federation, when through NRC, they defend against the attacks the provincial government make on university education. Or you can get involved in Mathsoc. It's on a smaller scale; you can work yourself up gradually and probably have more fun.

After telling you what the Federation is and what you can do, I shall leave it up to Mathsoc President (and fellow Fed Rep) Gary Dryden to tell you why you should get involved in things like Mathsoc and the Feds.

In regards to myself though I say now that my involvement in Federation and Mathsoc activities have made my two years at Univat somewhat frustrating, but more enjoyable and rewarding than they might have been. This has been from working at concerts and Mathsoc pubs in first year and becoming Fed Rep, eventually Treasurer. A final note must be made though. Don't get overinvolved if you want to do well academically. Gary and I can attest to that from experience. I hope this doesn't scare you away. The reason we got overinvolved was people before you did nothing. That doesn't have to happen if you want your society and Federation to survive and do what you expect of it.

JJ Long



Computing Access at Univat

Computing facilities are in abundance at Waterloo. If you don't believe that go look in the pit (red room), or listen to the ringy-tingys on the third floor APL or TSS rooms, or watch all the funny people looking at T.V. with the letters on it. The 360:44 and PDP on the second floor. The 1710 and the 1620 (are these really computers???? nobody really knows for sure.) Chances are a HP65 could out-compute them.) on the second floor DEBUG rooms.

Great, we got computers all over the place, and in hundreds of places you never see. It's probably safe to say not one person really knows for sure how many computers there are on campus. But nobody has told you how to get onto them, to actually do some computing. Well there is a way.

On the Honeywell TSS system, you have a USERID on the system if you are a Math student, and are taking a computer course (M122 or M132A for most first year students). It simply is your initials and surname, run together and truncated to 12 characters. For example, if Math Faculty knows you as H. J. Q. Rinckleberry, you would be known as HJQRINCKLEBE to TSS. If you are John H. Smith, you are JHSMITH. Simple, go to M&C #3018 and ask for help in getting signed on.

In your computer courses, your Prof. will give you an account number for the DEBIT terminals, which are little more than a reader, printer and operator hooked up to the 360:75 or the 370:158, giving you a whole 2 seconds (optionally 3) in the memory of the blue boxes. The format of this account will be given to you in class. There is a possibility that your account number will be good for batch, down in the Main I/O room, but with the money situation (lack of it) prevailing, it is doubtful unless you can get your prof to change it (and for that, you need a reason).

There is also a slush fund somewhere to get such exalted things as accounts on VITS, VYLPUR, CMS, ATS (ugh!), APL/360, and APL/VS, if Compute Centre bought the package from IBM. Good luck, keep reading mathNEWS, and keep your eyes open. Computing can be fun, when and if you get on.

BURLOAF

Welcome to the University of Waterloo. For the first few days, you'll probably suffer quite a comedown, as you find out that this is not the place of milk and honey like your Campus Day or Computer Science Day guide told you. Now that you've paid your money for knowledge, the people upstairs will lose interest in you and you have to fend for yourself.

A few things you may notice: Access to computing facilities is a lot harder than you were probably given the impression of. Because of recent changes in the economics of things, access to the Computing Centre is virtually (on the /370 anyway(?)) impossible. About the most you can do is run tiny programs that won't take long to do what they're supposed to do on compilers specially designed to make sure you do absolutely nothing illegal. The nature of the system is batch oriented, which means you punch your programs onto cards, and then run the entire deck through. A little while later, you get a printout of the program and its output. The Math Faculty (distinct from the Computing Centre) owns a Honeywell machine. It's a time sharing oriented system which means you type your program, make corrections and run it from a terminal, a device like a typewriter. Time sharing allows you to be interactive, which means your program can talk to you if you like. You still probably won't be able to work with very large programs, because all programs are stored in the computer, and your allocation of space to store your stuff will probably be rather small. However, there is a wider variety of things you can use to get work done. You will probably find, that if you use the machine to any great degree, that time sharing is much better than batch as far as getting useful things done.

U of W is a noted entity in the field of computing. Many advances have been made here. For instance, U of W people have invented a highly efficient form of Chinese Water Torture. It is called by many the "Debug Terminal". The water has been replaced by a thing called "Cobol", though the torture remains as excruciating. Often, you will see poor students trapped late at night in this chamber of horrors, trying to get their Cobol programs working after only four straight days of failure, programs that would have been working inside of an hour had they used a decent programming language.

I don't think it's true that Cobol is a communist plot to set free world computing back 10 years. It's just that Cobol was designed with all the wrong reasons in mind. It was made to look attractive at a casual glance. However, prolonged usage of the language leads to inefficient programmer output as the programmer battles with the language instead of solving his original problem. It could be wondered why programmers don't opt for decent programming languages (they do exist, but they are few and far between). This is probably because lack of exposure to the good way of doing things leaves them thinking the good way doesn't exist.

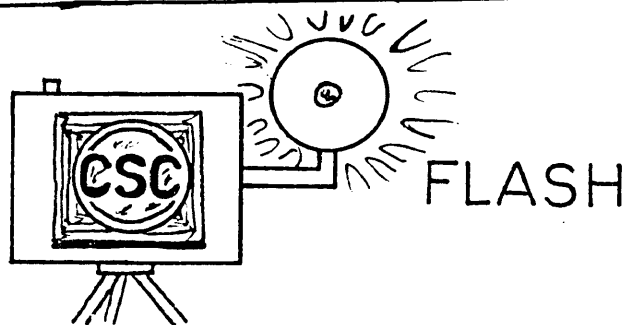
Each year, a few people become infected with a computer bug, and they end up spending most of their free time talking to the machines.

One group of people hangs around the Honeywell a lot. They are referred to as the "Hacks". Apparently Hacks are a rare thing, only a few universities have Hacks. These people sit at terminals for long hours trying to make the computer do all sorts of wonderful things. After seeing some of the things that Hacks do, the management wonders about their usefulness. Although they tend to improve the system by writing things to make the machine more versatile, they get into all sorts of places they shouldn't be, and do things that they shouldn't do. (Such as "crash"ing the system, i.e., rendering it inoperative)

Each week, this column presents an INTEGER_OF_THE_WEEK. This is an integer that we believe you will find useful in your years ahead in life, so watch this space, and collect the whole set. This week we had planned to publish the largest known prime number, but due to space limitations, we can't (it takes almost two pages). So instead, this week's INTEGER_OF_THE_WEEK is the smallest known prime number. Here it is, this week's integer:

2

It might be argued that -2 is also a prime, and smaller, however, we are not interested in associates, but rather just prime numbers in the classical sense. It might also be argued that 1 is prime, but 1 is sort of special, and isn't really as prime as 2 or 3 or 5 or ...



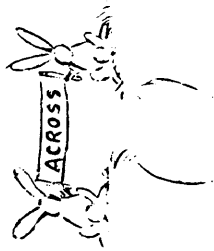
The Computer Science Club at the University of Waterloo is an organization whose purpose is to aid students in furthering their knowledge of computer science. It meets about once every two weeks, usually having a guest speaker who gives a talk on some topic the membership has requested.

The CSC also possesses a large (>300) number of manuals capable of answering nearly any problem one might encounter, and if they fail, there is always the CSC membership itself—there are few questions indeed that no one in the CSC has not previously encountered and conquered.

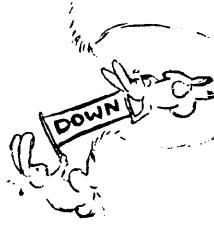
The CSC also sponsors (usually) a trip to some outside computer-related site. The destination is decided on by the membership at large as to what they want to see. For example, the previous trip was to Westinghouse's computer terminal assembly plant in Hamilton.

Finally, the CSC lends its support to obtaining computer resources for people who wish to develop their skills by tackling a computer project of some sort in any range of difficulty desired. For example, there is a group of CSC members now using a TV camera belonging to the Computer Communications Network Group to do some experimenting with computerized picture processing.

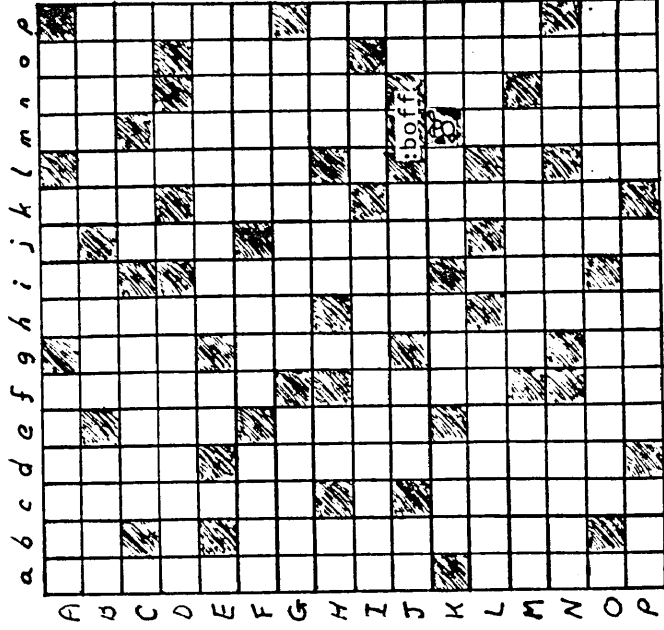
The first meeting of the fall term will see a new executive elected.
GET INVOLVED!



Aa honeywell (2 wd)
 h pre-exam study
 m directed
 Ba cow skin
 f musical instrument
 k procedure
 Cc waif
 j unity
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 l sodium
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 Fa crude shelters
 f flesh-eating monster
 k mournful
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 Ja legal aid
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 Gg the official student beverage
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 Ha a pungent vegetable
 h say it again
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 Gc a metamorphic rock
 j mike,davy,micky,peter (they sang)
 Pa 1000/7 stone
 e a monkey
 l not human



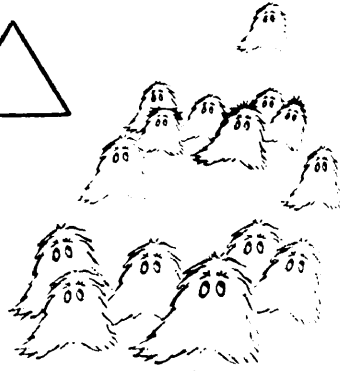
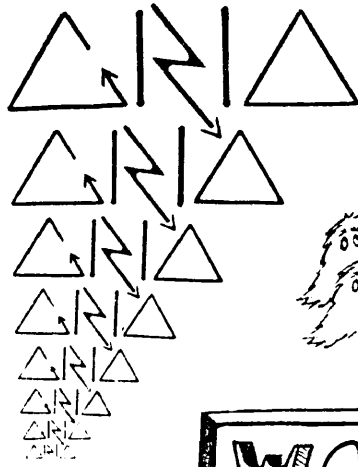
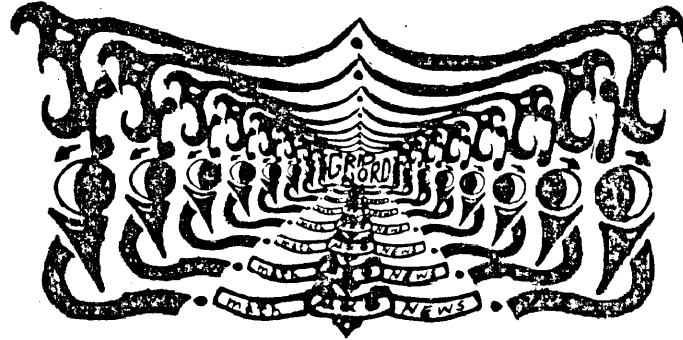
Aa pensive
 b hello
 c alleged purpose of university
 d our noble leader
 f what santa said (3 wd)
 h spouse
 i regarding
 k a male human
 m fortran operator
 n 3 vowels
 o a Village keeper
 Bg basic income unit
 l survey
 p stair post
 Ce used in billiards
 j fool
 Dm vinegary
 Ei a dammed animal
 k C H O acid
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 o fold under
 Fb micturition
 d literary greeting
 Gg sport
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 j I see (latin)
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ALIVE?

ALIBI?

ALIAS?



WORD



GRID COMMENT



As you read this, I am sure that many of you new mathies (And you'd better be mathies, because possession of this paper by a non-mathie is punishable by a fine of up to \$1.39 and/or imprisonment in the n-jineering lecture hall for up to six months or life, whichever is lesser) aren't really sure what this paper is supposed to be. That isn't to say that I know either; I've been working? for this paper for several terms (one loses track) and I still have no idea how or why this manages to get to the presses. However, I can attempt to explain how you can win free and/or valuable prizes with little or no effort on your part.

You may have noticed a strange looking crossword puzzle (called a gridword) elsewhere in this issue. Through the simple process of filling out a correct solution and either handing it in to the Mathsoc office (MC 3038) or dropping it into the mathNEWS mail box on the third floor (You or your seeing-eye dog should be able to find it without too much trouble, as it is the only grey box with a slot on the top of it, across from the lounge on the third floor of the math building). Assuming that your entry was correct and that you had it in before the deadline (September 10 for this "frosh issue") you will now have approximately one chance in "n" of being picked as the winner of the gridword (note the fancy mathie-type terminology: "n" means the number of correct solutions we have on hand). Once (if?) you have been declared the winner you are afforded the awesome privilege of having your name published in the grid comment, and if you or any of your friends? happen to notice it, only one small but insurmountable obstacle remains between you and your free and/or valuable prize. This being the pursuit and capture of the mathNEWS editor, Randall S(for scarce) McDougall. Beg him for your free and/or valuable prize. He can usually be found in MC 3011 on Tuesday evenings, nights and Wednesday mornings til about 7:49 (that happens to be the time we put this paper together). During the term the paper appears sometime Friday and you have til about 4:30 on the following Tuesday to hand in your solution.

This column is usually devoted to commenting on the previous issue's gridword; insulting submitters; and publishing the gridword creator's idea of a correct solution. Incidentally one other way to win a free and/or valuable prize is to create a gridword. The rules are minimal: the grid should be at least 15 by 15 and no more than 20% of the squares should be blanks.

A Day in the Life of a Typical Math Student

- 8:35 get up for 8:30 class
- 8:50 arrive at math building
- 9:00 find class
- 9:01 leave class for coffee
- 9:19 look at blackboard
- 9:20 wake up
- 9:30 arrive at C&D
- 12:30 finish eating doughnuts -- start on subs
- 2:00 C&D closes -- move to 'oun room
- 2:01 'oun crashes -- decide to go to 1:30 class
- 2:20 finish writing mid-term
- 2:30 go to campus centre pub
- 1:30(an) leave campus centre pub
- 1:50 arrive home -- start on next day's assignments
- 1:51 fall asleep



As a public service your Mathematics Society supports the distribution of caffeine and sugar fixes to the frequenters of the math building. Cunningly disguised as coffee and doughnuts (to mislead the ever wary RCMP skulking the halls) these drugs are sold in 10 and 15 penny packets for easy consumption. Connections can be made in the third floor math lounge - non-smoking side - known widely as C&D lounge and less romantically as room 3001.

C&D was started years ago to augment, supplement and supplant the vending machines which were beginning to take advantage of a monopoly situation by raising prices and lowering quality. It has expanded from a deficit operation dispensing coffee & doughnuts (and pens - but that didn't last long) to the addition of high quality subs and kaisers, tea, instant soup and hot chocolate. Math's C&D stand was the first and has since been copied by the dastardly n-jineers, the artsies and various sciences. Ours has never been surpassed in price, quality or service (and never shall) and the end-of-term-sale-to-lose-money-so-that-we-can-still-be-a-non-profit organization is a great event for the entire campus as they take advantage the good patronage shown us by our wonderful clientele.

The business has turned into a massive and successful conglomerate employing thousands (well 18 or 20 anyway) of starving math students doubling as paid volunteers - latest rates were \$2/hour - now under review. The manager and assistant are salaried, chosen by MathSoc for individual terms a term ahead of time (a small competition is held). Employees are picked by the current manager for several qualities (all user defined). I look for a responsive and pleasing personality, and a neat appearance (It helps if I already know you too!).

Stand hours are 0815 to 1600 hours weekdays at present and thought is being given towards extending hours and the line of goods traded. Complaints and suggestions should be directed towards the manager or my staff (read lackies). Just lumber down to MathSoc room 3038 and leave words (preferably in script (MathSoc has no Fair Witness in residence)), or buttonhole myself or space mail RJHIPFNER (for 'oun users). And try to make it to second year, it's getting lonely being old...

(hexad)

Q-pon FREE

1 cup of coffee ^{and} 1 donut

To the C&D Person: This coupon is good for the purchase of 1 coffee & 1 Donut, by the holder of a MathSoc-stamped ID card during the fall term, 1975. The purchase price will be refunded to the manager of C&D as a part of Orientation. Any other use of this coupon is fraud. Void where prohibited by law.

son of Full Duplex:

HALF DUPLEX

Well, congratulations. You have been "promoted" from B.I.U.'s on the hoof to real B.I.U.'s at the University of Waterloo. Now that we have your money, I am free to tell you about the Faculty of Mathematics as it really is. Firstly, for those who were impressed all to hell with the computers here you will find out that your access to them will be far more restricted than you were led to believe. Getting resources for anything but course work on the Computing Centre's "equipment" is all but impossible. You'll have to put up with turnaround time of Debug jobs of several hours (If the machine doesn't die first) during peak times (i.e. just before an assignment is due). And, if a high-school class is here for a Computer Science Day, you get bumped. After all, they already have your money.

Then you'll find out that there is more to computing here than (snarl when you say it) Debug. Wandering around, and assuming you've managed to heist an account somehow, you may find some real-time interactive typewriter terminals connected to VM ((Virtual Memory)) and CMS systems on the Confusing Centre "computers".

Then, as you become more worldly, you will find that there is another computer in the Math Building-

the Math Faculty Computing Facility Honeywell 6050. Getting access to this machine is considerably easier than the Computing Centre equipment. There are typewriter terminals on the third floor, as well as a dozen fast cathode-ray-tube (TV) terminals. One soon finds that far more useful work can be accomplished in an hour on one of these terminals than in a day at Debug. This may change for the worse, however. The 6050 (or 'bun) is already operating at nearly maximum capacity, and it may reflect this in poorer response time.

There is an additional hazard on the 'bun, however. You are trespassing on the territorial grounds of the computer "hacks". These creatures are rarely seen by daylight (

thank God), and are most easily recognized by their vocabulary. This bears a superficial resemblance to English, but is actually closer to a cross between FORTRAN, COBOL, MAP, and WATMAP. Other identifying characteristics are: ability to read at 120 characters per second (maximum terminal speed), a skin colour indicating they haven't seen the sun in a year or so (they haven't), bloodshot eyes, general avoidance of humans, and an obsession with using a computer. Not usually found south of the third floor, or north of the fifth, these creatures have been dying off in recent years, with their number dwindling due to the UNIX virus, with conditions slowly becoming more hostile in their native habitat contributing as well. Also, they have trouble foraging for food - nothing is open for their typical 9 to 5 hours - 9 pm to 5 am.

These beings have high territorial instincts, but will usually run from the sight of humans. Non-violent, unless you disturb one of them in his religious detente with the computer through the aforementioned 1200 baud (i.e. 120 character/second) terminals. They have been known to turn on people savagely in this case.

Doubtless you have heard of the Waterloo originated compilers, WATFOR, WATFIV, and WATBOL. Did you ever stop to think why they haven't tried to write an ALGOL compiler? Seems that the people downstairs (the Computing Centre), despite their confidence (and profits derived thereof) in WATBOL, WATFOR, and WATFIV, just couldn't bear to call it WATCOL. Might be striking too close to home.

Finally:

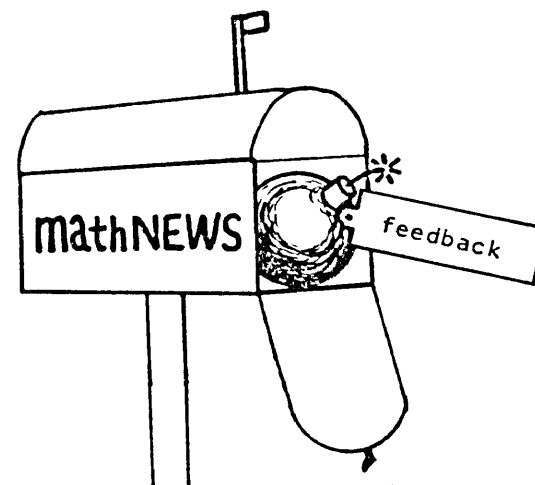
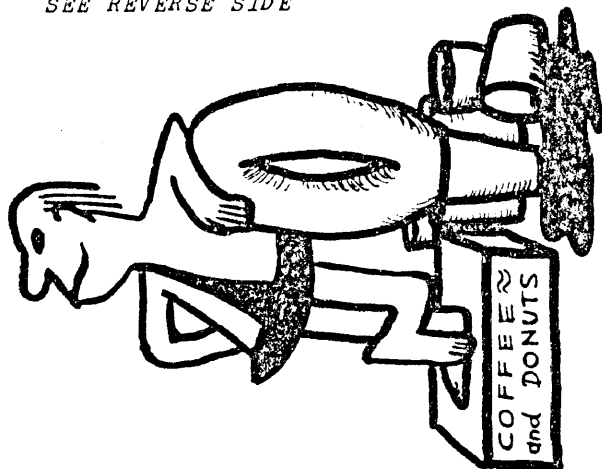
TO MY GHOSTWRITER: Thank God it's the end of term.

TO ALL CONCERNED: Good luck at Uni'wat. You'll need it.

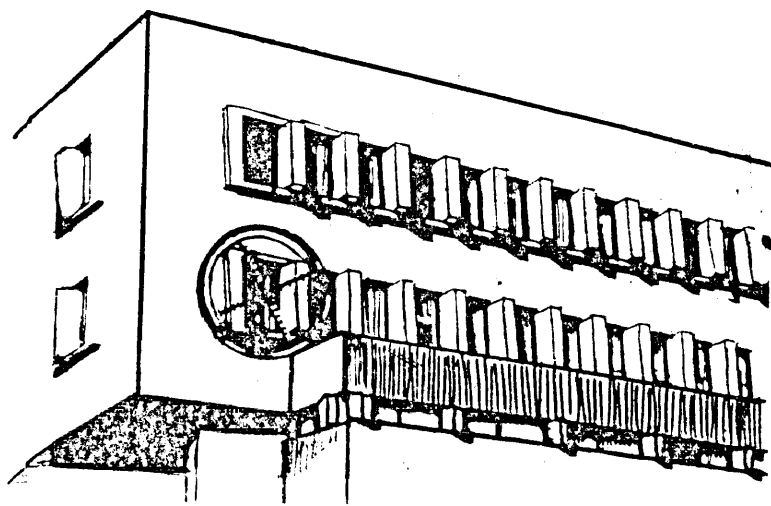
Ludwig von Zopfball

SEE REVERSE SIDE

O.P.O.R



mathNEWS welcomes your criticisms, comments, suggestions, etc. All letters should be signed, but if requested, a pen name will be used. Put your Feedback articles in our MAILBOX on the 3rd floor outside the lounge, or mail it to us on the 'Bun (userid mathNEWS), or take it to M2C3038 and have it put in our mail slot or put it in the mail addressed to mathNEWS, M2C3038.



FROM THE DEPTHS OF THE FIFTH

COMMENTS FROM THE DEAN'S OFFICE - K. D. FRYER,
ASSOCIATE DEAN

We welcome any opportunity to pass along a word of greeting to our incoming frosh and we appreciate the space given to us by mathNEWS for this little message.

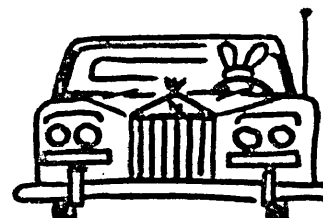
Our first comment concerns the Math Society. The Mathematics Society is the official representative of the students of the Faculty of Mathematics, and as such, deserves your interest and support. Its aims are to coordinate the social, cultural, academic and athletic activities of its members. You will 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 mathNEWS to inform undergraduates of such things as new course offerings, changes in regulations, deadline reminders, etc. mathNEWS also keeps an eye on goings-on in the faculty and provides considerable student comment (definitely). This was especially in evidence last year when there was a proposal to change the name of the faculty to "the Faculty of Mathematical Sciences". So keep reading mathNEWS and, if you have a literary bent, volunteer to help with its publication.

We also commend you to 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 undergraduates, runs the week preceding the start of classes and 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 doughnuts available and an opportunity to chat with other math students, old and new.)

Finally, you have already been sent much information 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

FROM THE DEAN



I am most pleased to accept MathSoc's invitation to say a word of welcome in this special edition of mathNEWS. During this first confusing year, you will find mathNEWS a helpful way to keep up with the happenings around Faculty.

Please feel assured that, despite the bureaucratic endurance test of registration, you are most welcome in the Faculty of Mathematics. We try hard to provide an environment where all Faculty members, students and professors alike, can share common interests and goals, and we hope also that you will share our pride in belonging to this faculty.

Deans and the like are strong on platitudes and advice and there will be more of the same when we all meet together on Thursday, September 11th at 3:30 p.m. in the Arts Theatre. I hope you will be able to find your way there (Instructions will be given) so that, at least, you can meet some of the people you will be dealing with. I also hope that you are in the process of learning more of what it means to be at the University and that you are liking it. In the words of the limerick:

"There was a young lady from Kent,
Who said she knew what it meant,
When men took her to dine,
Gave her flowers and wine,
She knew what it meant, but she went."

Anyway, I hope that you will show similar initiative, creativity and adaptability to the requirements of University life. Good luck and, again, welcome.

W.F. Forbes

W.F. Forbes

listing these items and where to find them. We recommend that you read them since they are designed to ease entry into the faculty and to make sure that your first year is a profitable one.

- Honours vs General Math courses in first year
 - pp 5-8 in the pre-registration package
 - pp 7&8 in the circles booklet
- Operation Mathstart
 - Orientation package
- Standings and promotions regulations
 - pp 17-21 in the circles booklet
- Early credit examinations
 - Detailed summary
 - pp 9&10 in the circles booklet
- Textbook list
 - orientation package
- Course drop/add deadlines
 - orientation package
- Frosh orientation meeting
 - orientation package
- Streaming in computer science courses
 - p 9 in the circles booklet
 - p 10 in the pre-registration package



UNIVERSITY OF WATERLOO

In this special orientation issue of "mathNEWS", I am pleased to extend a sincere word of "welcome to Waterloo".

Your first days as a freshman at Waterloo will no doubt be confusing and certainly busy. But very soon you will be settled in your living quarters, have completed your registration and will settle into the routine of attending classes and private study.

I hope you will make full use of all that the University has to offer both in the classroom and in extra-curricular activity. In both areas of activity much depends on you as an individual.

Our faculty members in Mathematics are highly qualified and have a sincere interest in you as a student. It is up to you as a student to make full use of them. Do not hesitate to seek out their advice and assistance.

I congratulate you too on your choice of study. To a remarkable degree, mathematics has become a central discipline in our society. Automation and the techniques of manipulation of data can, quite rightly, be recognized as one of the major developments of the past two decades.

It is certain that the application of mathematics in every aspect of our daily lives will intensify. As graduates of Waterloo in the next three or four years, you will be prepared to play a significant role as mathematicians through the remainder of this Century and beyond.

To each of you I say a sincere "welcome to Waterloo".

B.C. Matthews
President

FEDERATION OF STUDENTS

Fellow students,

Welcome to all of you for whom the academic year 1975-76 is your first on the University of Waterloo campus. Math is what first attracted me to this campus and, as you well know, Waterloo is renowned for its Math Faculty.

You will also find one of the best intramural athletic programmes in Canada and I am sure Mathsoc's orientation programme along with that of the Federation will introduce you to many of the other opportunities open to you both on and off campus. A large number of these are provided for you by your peers as part of the ongoing programmes of student government. Whether it is through one of the many clubs and organizations, Mathsoc or the Federation of Students, I hope you will recognize those contributions made by others and find it in yourself to make your own contribution.

I wish you a successful academic year and I hope you are able to fully participate in some of the many extra-curricular activities.

See you in September!

Yours truly,

John M. Shortall
President
Federation of Students

MATH

Dear Frosh,

By now you've probably read all those articles by persons such as Burloaf, Ludwig Von Zopfault and the Torch. These people(?) seem to think that nothing goes right around this faculty. Well it's time that the truth was bared. These people are really ARTSIES. Yes, ARTSIES! A group of degenerated commie warpos who occasionally break out of the Arts library and try to down-grade the all-mighty Math Students of this University by verbal slurs. You didn't really believe that Math students had names like that. You're lucky you registered in the right faculty because the university literature won't tell you about the menace of an Arts education.

To combat this and other groups of helplessly insane individuals (there are others such as Engsoc, the jocks, SciSoc) the faculty was forced to start its own army.

As a cover this group of fierce, loyal and lovable Mathies formed MathSoc. MathSoc pretends to be interested in activities like course curriculum, computer availability, locker distribution and much more. They even send delegates to all sorts of faculty and university councils to ensure student rights. But the real reason for its existence is as a training ground for our MathSoc gorillas. To finance these operations, MathSoc sells at cost "official MathSoc T-shirts". Our gorillas are trained for battle in strenuous co-ed sports like Broomball, Soft-ball, and Waterpolo.

If you are interested in stemming the communist tide and having a good time come on out to Rm. 3038 and get involved. We always need new frosh warriors to replace the ones who have fallen in battle.

What is MathSoc

MathSoc:

- (1) distributes lockers free of charge to Mathies
- (2) lends chess sets, checker sets and playing cards
- (3) sponsors and supplies equipment and T-shirts for all athletic events
- (4) pipes music into the lounges
- (5) runs on an "at cost" basis a Coffee & Donut stand on the 3rd Floor
- (6) sponsors pubs
- (7) sponsors the Math Semi-formal
- (8) sponsors MathNEWS
- (9) will sell you at cost (\$2.50) official MathSoc T-shirts
- (10) represents the student interests on all faculty and university committees
- (11) produces "antical", a course and professor evaluation handbook

.....
MathSoc needs people to do all these things. When nominations for Frosh representatives to MathSoc council open, volunteer your name so that we may have a strong council and get things done. Remember we have \$15,000 of your money so take an interest in seeing that it is well spent.

Commander in Chief
And President MathSoc

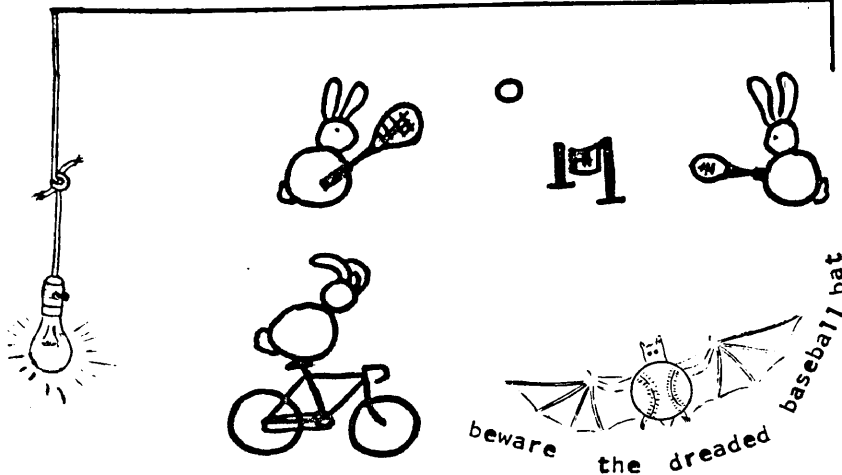
FIRST YEAR FOLLIES

A Welcome Address
by
P. C. Brillinger

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 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 get you 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 on 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 social and scholastic 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!!!



ORIENTATION ORATION

Dear Frosh,

Your Mathematics society, located in Math & Computer (MC) 3038, local 2324, welcomes you. Feel free to drop in at any time; the people there are always friendly and usually need an extra player for hearts. You will need your ID card stamped at the office to take advantage of all the benefits that MathSoc offers. To encourage you to seek us out, we'll have free coloured rulers waiting for you. Also, we are running a Mystery Frosh Contest. We have picked ten numbers, n_i , $i=1, \dots, 10$ from the numbers 1 to 900. The n_i th frosh to have his or her ID card stamped will receive a free coloured T-shirt.

Week of September 8.

Math Film Festival-

5 S(tar) movies:

Sci-fi, Spies, Satire, Super Marionation and Sex(?).

Time and place to be announced -- watch the Math building bulletin boards.

Saturday Sept 13, afternoon

The Federation of Students is sponsoring a track & field/team sports competition. There will be soccer, football(touch?), tug-of-war, softball, etc. Come out and join a math team or watch the fun. Show that n-jineers are no match for athletes.

Sunday Sept 14, 1 p.m.

Co-ed slowpitch -- on the Village Green.

Come out and play against the pros.

Afterwards:

Ride to Laurel Creek Conservation Area for a wiener and corn roast, and maybe swim.

Wednesday Sept 17, & Saturday Sept 27

Wine and cheese party

Two nights to eat, drink and shoot the s... with your 1st year pros. Also meet your student reps. Location: MC 5158 (faculty lounge)
Time: 8pm

Have fun, and good luck this year.

Brad St. Pierre, Orientation chairperson (for)
Selma Sahin, social director.

MATHLETICS



Mathletics is the title all the athletic events sponsored by MathSoc run under. Some of the teams MathSoc sponsors are Co-ed Baseball, Co-ed Inner-tube Waterpolo, Co-ed Broomball, Flag Football, Basketball & Volleyball.

Traditionally our teams have been stocked by frosh as they seem to have the most free time and the need to meet new people.

About the 1st week of classes team lists will appear on the glass outside the 3rd floor lounges. If you're interested, sign the lists and attend the organizational meeting that will be announced later.

If you have any questions about these sports, what they are or what Co-ed means, come by the MathSoc office (room 3038 in the math building) and accost anybody there.

"The Coach"

the Social Lowerarchy of UniWat

As newly accepted Mathies at the University of Waterloo, you have just received a confirmation of what you suspected since you momentarily occurred (Mathies don't just get born), that you are indeed a real somebody.

The Faculty of Mathematics at Waterloo is unique in Canada. There is nothing else which can compare to the brilliance shown by students of this faculty. However, the lesser mortals they allow into this University seem to have trouble comprehending this, and being totally confused all of the time, they send a never-ending barrage of criticism (all of it unjustified, I assure you) our way.

Contrary to what even they believe, there is a reason for their existence. This is, simply, to act as guinea pigs for the profs to perfect new styles of teaching upon, and to give the many profs a look at the lesser beings of the world, in order that they more fully appreciate what the ultimate honour is: To be allowed to pass on their limited knowledge, in a feeble attempt to satisfy the typical Mathies' thirst for meaningful knowledge.

In order to easily determine the source of these dull 'insults' the cretins are continually throwing at us, it is recommended you study the following list of character traits.

ENGINEERS: Definitely the lowest on the evolutionary scale, with a level of intelligence just barely ahead of pine trees, this beast will sexually attack anything it thinks is female. Since it doesn't think too well, this leaves a lot open. Lock up your girlfriends, daughters, dogs, cats and goldfish. The University Administration, after one frightening experience, has decreed that all n-jineers shall be locked up underground, in n-jineering lecture hall, on each occurrence of the full moon.

ARTSIES: This form of life is generally not too bad, although rather dimwitted and dimwitted. Spends most of its time hauling books from point A to point B, for no apparent purpose. Although literate and decently cultured, most Mathies find their company dull.

JOCKS: Generally a very large and physical beast, these forms of life aren't what an Artsie is i.e. literate and cultured. Although it takes quite a bit to provoke these things (hit them once to get their attention, then again to provoke them), once provoked, they put a mad grizzly to shame. Generally, they are harmless.

PLANNERS: Classify these guys as Artsies, they hate it but are so dominated by the Mathie, they never do anything.

INTEGRATED STUDIES: These things want the best, but aren't bright enough to become Mathies, so they enter this 'Faculty' in hopes of taking as many math courses as possible. Tend to infiltrate math classes as unobtrusively as possible, and are rarely successful. Rest assured that you are far and away superior to any of them.

SCIENCE: These mad maniacs of the 'laboratory' accomplish little, as is to be expected. However, madness occasionally fosters a short flash of semi-brilliance, and in one such flash, managed to infiltrate the fourth floor (behind the library). To date, we haven't kicked them out because they aren't worth the trouble.

PINKIE LIVES ?

The Pink Tie was chosen as the symbol (mathscot) of the math society shortly after its founding (circa 1966) in honour of Ralph Stanton, the first Dean, who often wore garish ties.

It reaches from the top of the math building to the ground, though it has not been flown often in recent years.

The pink tie is an honorary member of engsoc, where it has been held on several occasions. Though the Karl Fredrich Gauss Foundation were the last to craveatnap it.

A movement is now afoot to have Pinkie laid to his final rest but at the time of writing, no substitute had been found, and Pinkie was still alive, if somewhat aged, and living somewhere near MathSoc (in spirit).



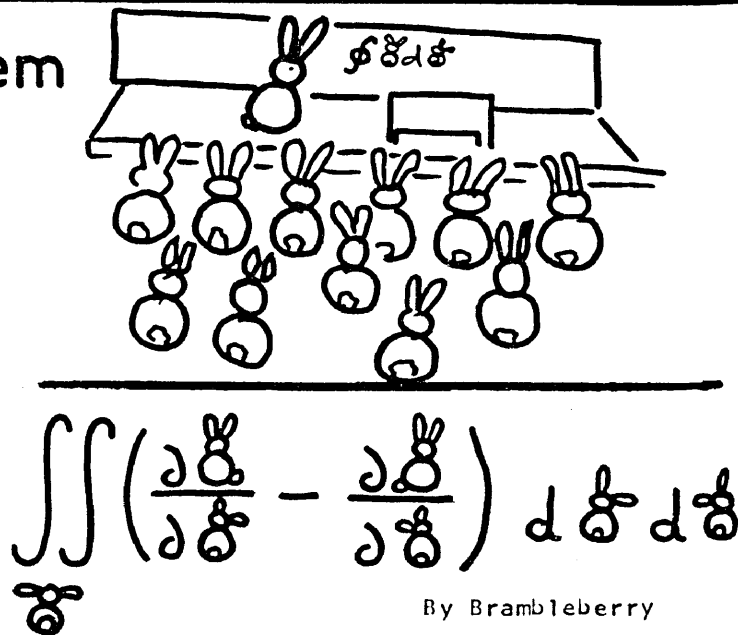
This Week's (rabbit) Theorem

The theorem of the week for this special frosh issue is one dear to most undergraduate rabbits in math at UniWat. Math 237 B(unny) treats Green's theorem as extremely important, as indeed rabbits are deeply concerned about greens, and other vegetables as well. The key result follows:

GREEN'S THEOREM IN THE PLANE FOR BUNNIES.

$$\oint \text{bunny} \, d\text{bunny} + \text{bunny} \, d\text{bunny} =$$

NEXT ISSUE - Binomial theorem for bunnies.



By Bramleberry

WHAT IS mathNEWS?

mathNEWS is the only weekly paper on campus staffed entirely by volunteers (students or otherwise). The audience it tries to serve are mathies (since that's where most of our staff and funds come from).

The aims of mathNEWS are to keep mathies informed of events and activities which are of interest, to provide some light entertainment(!) and to provide a forum for mathies to express themselves.

These aims have met with varying degrees of success in the past. One of our early issues had core-dump on the front page! The success mathNEWS attains depends entirely on the involvement of the student population.

If you haven't guessed by now (and the way I write you probably haven't) this message is an attempt to indicate why you should JUMP at the opportunity to be a mathNEWS staff member. Maybe the best way to look at it is as a job description. (Those of you in the Co-op program will be seeing at great deal more of such descriptions).

JOB NAME: mathNEWS Staffer

NUMBER OF POSITIONS OPEN: m (as in many)

QUALIFICATIONS REQUIRED:

- must be able to breath
- have the ability to show up in M&C3011 on a Tuesday night (or VERY early Wednesday morning).

OPTIONAL QUALITIES:

- able to type faster than 2 words/minute
- able to write (or print)
- ability to use scotch tape
- skilled at thinking up ways causing the n'jineer's rigid tool (n'jineer's mascot) to disappear.

ADVANTAGES OF JOB:

- a chance to meet interesting (?) personalities, like JJ or Kathy-X or the roving action BURLQAF (You'll never forget them --- try as you may)
- an opportunity to sit down to learn and use some of the systems on the 'Bun (also called the Honeywell 6050)
- an opportunity to write, print or draw, and have over 1000 people as an audience
- a chance to use an alias
- offers the possibility of letting you see the sunrise
- an opportunity to learn a lot more about what's happening on the fair (?) campus of Waterloo.

DISADVANTAGES OF JOB:

- the opportunity to drink free mathNEWS coffee.

On September the 3rd the first autumn issue of mathNEWS will fall together. Our office hours will be from 6pm to 6am (Wednesday to Thursday) and we will be located in room 3011 in the math building. Everyone, (especially you) is invited to drop by (if only to taste our coffee).

So if you're on campus on the 3rd be sure and drop by M&C3011. An opportunity not to be missed!

Dennis Mullin

mythNEWS

By Mythrandir



PANIC! You have been taken in! Once again many students, such as yourself, have fallen for the hoax perpetrated this time every year by the University of Waterloo. By now you have probably said goodbye to at least \$50.00 you will never see again. For the simple truth is: The Faculty of Mathematics does not and has never existed. It is all an elaborate ruse on the part of UniWat. I mean, really, have you ever heard of a faculty of mathematics any place else? Of course not! This is just a technique UniWat uses to attract and ensnare slaves to effect its own sinister activities.

But what, you say, what of those glossy photographs of the Math & Computer building? What of the glowing write ups re math departments etc? LIES ALL LIES! The "Math building" shown in the high school brochure is in reality a 10cm x 10cm x 5cm clay model kept for such purposes in the administration's vaults. In reality the math building is a sparsly appointed barn rented from a neighbouring farmer. The glowing write-ups are entirely fictitious. A department of "Combinatorics and Optimization"? Come now, you really can't have fallen for that! What of the Internationally acclaimed computer science facilities? Again, the truth is far simpler. The university "Computing Centre", which has to keep up appearances, seems to have large (if IBM) and extensive hardware. On further inspection, however, we begin to understand why the computing centre allocates no less than 85% of its annual budget to papier mache and paint. Also, so called terminals are in fact merely IBM selectric typewriters with fake "lcl / com" swithes glued on them. What of the "Faculty of Math" computing facility, allegedly a Honeywell 6050 running timesharing under GCOS? You are led to believe this computer is in a closed back room with no windows and locked doors. Sounds suspicious already, doesn't it? In reality many (and in this case actual) terminals in one location are simply hard wired on a 2-way communication line with other similar terminals in another room. People (?) known as "hacks" are chained to these other terminals and try to reverse Turing's intelligence proposition by imitating a computer. This system (known as "the 'bun") has to be a candidate for the best hoax ever. So what now, you ask? Now you have become part of this never never land that my 2B calculus prof. called a "shadow existence". So soon you won't believe it you will be alarmingly familiar with M&C, C&D, the 'Bun, and many other living (if Complex (or at least Imaginary)) myths and legends of "Math" at UniWat.

where to go when MathStart Stops:

M	MATHROOM 3023	R
A	-wanna change an elective?	O
T	-check master schedule?	O
H	-honours to general?	M
	-sharpen pencils	
	-scotch tape, staples, et c.	
	-talk	

UNCLASSIFIED

GAUSS LIVES

mathNEWS will print your Ads FREE of CHARGE. Just jot them down on a piece of paper and put it in our mailbox on the 3rd floor across from the C&D lounge, or take it to MathSoc and have them put it in our mail slot, or put it in the mail addressed to mathNEWS M&C 3038, or send them in the mail subsystem on the 'Bun to userid mathNEWS.

Wanted: Typists, any size, any shape, any colour, any number of fingers. Unreasonable hours, no overtime, come to think of it, no pay. You will work ridiculous hours trying to decipher JJL's handwriting, and others, in a desperate attempt to get a student newspaper out (name: mathNEWS). Being insane not necessary, but definately an asset. If interested, production meetings are Tuesday nights, M&C 3011, from 7 pee em until your guess is as good as mine.

Wanted: Writers, qualifications optional, same time, same place.

Wanted: Any one who is not in the above two categories, and wishes they were, or have given up hope. We can find a useful purpose for you. Same time, same place.

Wanted: People wanted insight on a dynamic, real life career of how a business operates! See how our undaunted Editor fights hell, high water and lack of sleep to get a newspaper out before Graphic Services opens at 8:30. See how he fights for more money cause we might go over budget (definately a real life situation!). M&C 3011, 7 pee em Tuesday until sometime Wednesday, hopefully before 8:30.

Wanted: Dependable earlybird to take completed newspaper (we hope) to Graphic Services at about 8:30 Wednesday mornings. Weekly. applicants please show up about 7 pee em Tuesday nights for screening. No pay. This job made necessary because our Editor usually passes out at about 5 en emm.

Yahoos need not apply (all n-jineers are yahoos, along with some others).

A DEAN Leaps tall buildings in a single bound, is more powerful than a locomotive, is faster than a speeding bullet, walks on water, gives policy to God.

A DEPARTMENT HEAD Leaps short buildings in a single bound, is more powerful than a switch engine, is just as fast as a speeding bullet, walks on water if the sea is calm, talks with God.

A PROFESSOR Leaps short buildings with a running start and favourable winds, is almost as powerful as a switch engine, walks on water in an indoor swimming pool, talks with God if special permission is given.

AN ASSOCIATE PROFESSOR Barely clears a Quonset hut, loses tug-of-war with a locomotive, can fire a speeding bullet, swims well, is occasionally addressed by God.

AN ASSISTANT PROFESSOR Makes high marks on the walls when trying to leap tall buildings, is run over by locomotives, can usually handle a gun without causing self-inflicted wounds, can dog-paddle, talks to animals.

A LECTURER Leaps through low windows, knows a locomotive when run over by one, uses blanks, can stay afloat with a life-jacket, talks to anything that will listen.

A GRADUATE STUDENT Runs into buildings, recognizes locomotives two out of three times, is not issued ammunition, doesn't usually drown in a bathtub, talks to walls.

AN UNDERGRADUATE STUDENT Falls over doorsteps when trying to enter buildings, says "look at the choo-choo!", wets himself with a water pistol, plays in mud puddles, mumbles to himself.

A SECRETARY Lifts buildings and walks under them, kicks locomotives off the tracks, catches speeding bullets in her teeth and eats them, freezes water with a single glance, is God.

mathNEWS is a weekly publication (fortnightly in the summer), published on campus at graphic services. mathNEWS is financed by MathSoc fees, but is independent of MathSoc, and views expressed represent those of our staff and contributors only.

mathNEWS is created Tuesday nights from 7:00 p.m. onwards in M&C3011. All contributions, feedback, ads, or help putting it all together is welcome... if you're around drop in...

Circulation this issue is 1000 with souvenir copies to our workers, and 52 (paid) subscribers... the next mathNEWS will be created on Sept 3rd (Wednesday) and everyone out there is invited to help... our organizational (sic) meeting will be held sometime the following week in all likelihood... that issue should appear on Monday some 3th...

This issue was put together over a period of 3 days, due largely to the lack of about 5 articles (we're still missing 2), of course we couldn't have finished anyway since the Math Faculty Confusing Fallacy (alias the 'Bun) crashed early Monday morning after hanging off and on all night Sunday...

You may notice only 1 MathSoc article in this issue, don't let it keep you away, MathSoc NEEDS you (that should be obvious)... Since our articles are mostly signed (and we have a lot of them) we'll only give specific mention to our workers, who were:

Rag White by virtue of typing in 2 articles a week or 2 about...; King Lear for typing in the half page of adjectives describing our "life matters"; Mike Leclaver who deserves special commendation for decoding JJ; Jim (the torch) "antle" who passed through for a couple of hours on the way to Toronto; Ron (hexad) Hipfner (who carried the torch to Toronto?) (!!!); Ludvig Von Zonfault who doesn't like his Mother's; Jeff and Bonnie (an "have?) our gridlock rabbits; PPPAYWHAM, who will get it in a later issue (ha ha); What's Bahard (reflexive); C&D/Biddle (divish act UR); the Gov; adyden (our late coming president...); Russell Crook the late staying librarian; Jean Sterner our Monday worker (happy zeroeth anniversary to you too, soon); and of course Randall S. McDougall the (as of this paragraph) EX-editor.

Low as a civilian I'll just add that it has been a weird term, but with your help, next term will be even weirder!!! and a special welcome to our special freshperson, who has some idea what's going on... we're looking forward to finally meeting you...