Faculty Curriculum Committee

New C. S. Degree Requirements

6-week Drop Period Possible

The Curriculum Committee, at its January 6 meeting, approved the new requirements for a Computer Science Honours degree. These requirements (which need Faculty Council approval) entail the following:

Required CS courses will be math 122A, 132A, 132B, 240B, 314A, 314B, 340A, 340B, 371A, 372B. Four 4th-year half-courses in CS must be chosen.

Required non-CS math courses will be 129A, 129B, 130A, 130B, 229A, 229B, 233A, 233B, 237A, 237B, and two full (four half) courses from 329A, 329B, 332A, 332B, 339A, 339B, 341, 342, 343, 351A, 351B, 363, 408, 436. But 342 and 343 will not both be counted toward the requirements.

These requirements will upgrade the degree and provide more options for CS students.

At the same meeting, Dr. Baker outlined the problems that professors have with a lack of freedom of expression.

The Report of the Curriculum Committee, as outlined in mathNEWS last week, will go to Faculty Council in February. Generally the report (though very vague in many places) has been well received by students. Two areas of complaint are the regulations reducing the drop period to 4 weeks, and the restrictions on the number of courses one can take per term.

However, the Dean and other Faculty members have indicated a willingness to consider a 6-week drop period. It has been generally agreed that an Honours program should require a 70% average, and basing the system on course attempts instead of terms is much preferable. Most of the changes look like a good deal for the students.

If students do get involved, we can get back committee representation. Generally the Dean has indicated we may get three students (one regular, one co-op from each term) for most committees, with perhaps more people on Faculty Council in the future. So if you want more strength, come to the Mathsoc office, MC 3038, and sign up for a committee.

FRIDAY, JANUARY 16, 1976
ISSUE A.1

mathNEWS

COMIT is coming!!

The University and IBM are engaged in a joint project to develop and evaluate a computer-assisted teaching system. Co-op students are working this term with professors, developing course modules which will be available on a trial evaluation basis.

The major breakthrough of the system is the COMIT terminal, based on the Sony Trinitron color TV. The terminal will have a keyboard for character input with 5 character sets; a speaker and earphones for output from audio tapes, video sound-tracks, or a voice response unit; a sonic pen which can be used on the screen with a .001" resolution, or off the screen to trace line drawings; and the screen, which can display color slides, over which graphics and characters can be displayed in any 7 of about 32K colors, or videotape.

Character input and output use IBM's system "ITS", which can be used with minimal training to write interactive training modules. Those with more experience can write almost any interactive program using its dozen standard macros to make coding trivial.

The ITS courses will be stored under VM on the 370, while special features (e.g. videotape libraries) will be controlled by a System 7. With the initial four terminals for evaluation will be a facsimile printer, and one terminal will be portable with a TV projector attached, for use in large classes.

Some students in some courses are scheduled to be using the system starting this fall. The hope is that by the end of 1977, the University will know whether to invest further and IBM will know whether to produce the system commercially.

2,750 abstentions
22 in favor, 6 opposed

The recently concluded Constitutional Amendments Referendum resulted in the amendments passing by a vote of 22 to 6, out of total of 2,778 eligible voters. With the routine approval of the Federation Committee of Presidents and the Fed Council, the amendments should become law by early February. Considering the election was conducted over 24 days (December 1 to 19, 1975, and January 4 to 8, 1976) and the Internal Affairs Director tried to personally hand the sudents their ballots, the 1.07% turnout was very disappointing!

However, it has passed: the Internal Affairs Director has been switched to Education and Mathsoc is in essence operating under the new rules.

Could we do better next time

Also at this time Mathsoc council by-elections are being held. The nominations opened January 14 at 09:30 and close January 21 at 16:30. The elections are to be held at the same time as the Fed elections on January 28.

The positions open are:

1B CO-OP A Stream.....2 seats
2A CO-OP B Stream.....2 seats
3A CO-OP A Stream.....2 seats
3B CO-OP B Stream.....2 seats
Graduate Studies.....1 seat

JJ Long FED REPORT

Lately the Federation has been concerned with the case of LIKE IT IS magazine. On December 2, 1975, Federation council recommended to the University that unauthorized publications, such as LIKE IT IS magazine, not be allowed free distribution on this campus. John Shortall's main reason for this action was that the advertising in LIKE IT IS posed a threat to the Chevron's advertising revenue, and with a decrease in revenue from ads the Chevron would require a higher subsidy from Fed council.

After this action become known, opposition started from a number of circles on the campus. It was felt by many that Shortall was trying to stifle the freedom of the press. I really wonder why he thinks LIKE IT IS is such a threat. Most of its ads are of a national scope, as opposed to the Chevron's mainly local ads, and many of the ads in LIKE IT IS would never go in the Chevron because they are paid for by large oil companies.

Also, I do not consider LIKE IT IS to be much of a threat in terms of quality. Though some of its technical articles may interest Engineering and Science students, the general tone of the magazine seems to show more of a high-school mentality. The Canadian University Press, who fear competition from LIKE IT IS, should have no problem if they get off their asses and produce a good-quality magazine.

LIKE IT IS has been called an "apologist for big business" by the CUP, and it may well be, but if students want that point of view in a free magazine they should be able to get it and not be denied it because the Federation tells them so. If you feel strongly either way on this matter you should see someone in the Federation or write to the University Senate or the President, since it will be Burt Matthews who makes the final decision.

The Science Fiction club has just received recognition from the Board of Entertainment. This club, formed in November, already has 60 members (20 of them off-campus). The club has been very active in their short existence and should do more now since they have a grant from C&D to operate a Scific magazine and the permission of the Board for their monthly quality Scifiction movies (Fic Flics). The Board of Entertainment also discussed what philosophy they should follow in the area of concerts and Art Ram announced the joint resignation of himself and Carl Chaimovitz, to take place after the Garfield concert. The B of E also made a motion to charge 50¢ to WLU students at Fed and Society pubs. This is being done to try to get WLU to change its discriminatory policy against UW students at its pubs.

If you were ever able to get Radio Waterloo, you may have noticed that it is not broadcasting. This is because the CRTC would not let it on Grand River Cable without an over-the-air license. Currently you cannot even hear them in the student lounges (which was difficult even when they were operating). Full-time co-ordinator Dave Assmann has told me that he is working in a joint bid with Conestoga and WLU (in this area we co-operate) to get a small transmitter and license for a University radio station.

The next Fed council meeting will occur this Sunday at 19:00 in Needless Hall 3006. Once again I have not yet received an agenda. If you would like to see me regarding any Fed matter I have mailboxes in the Mathsoc and Fed offices and can be reached at extension 2324 (usually) or 745-0977 (when I am rarely home). Remember the Fed Presidential elections and Mathsoc by-elections occur on January 28. For President ALL students (full or part-time, grad or undergrad) can vote. So whoever you support, get out and vote in this important election which could have an effect on the future of the Federation!

JJ Long

Math-Arts-ESS Week 1976
February 2-7

MONDAY, February 2
- 12:00 Tug-of-war — Arts quadrangle
- 19:00 Duplicate Bridge Tourney — Math lounge MC 3002

TUESDAY, February 3
- 12:00 Spelling Bee — Humanities lounge HH 280
- 20:00 Wine & Cheese — Math faculty 5th floor lounge MC 5136

WEDNESDAY, February 4
- 12:00 Slide Rule Contest (8-foot slide rules) — Math lounge MC 3002
- 18:00 CC Pub — free admission for Mathsoc, Artsoc, and ESS members.

THURSDAY, February 5
- 12:00 Toboggan Races and skating — Outside Conrad Grebel
- 20:00 Games Night cards & darts — Math lounge MC 3002

FRIDAY, February 6
- 11:30 Broomball Tourney "Milk and Cookies" — St. Clements Arena

SATURDAY, February 7
- 20:00 Semi-Formal with Full House — Concordia Club
  - 20:00 Veal dinner
  - 21:00 Dance

All tickets for all events (when required) may be purchased at the Mathsoc (MC 3038), Artsoc (HH 178A), or ESS offices.

Semi-Formal	$10/couple Arts, Math, ESS; $12/couple all others.
Wine & Cheese	50¢/person ESS, Math, Arts; 75¢/person all others.
Broomball	$5/team.

Ticket prices and event dates are subject to change.

T-SHIRTS ARRIVE

Co-op Math, Rene Descartes, and ordinary (unspecialized) Math T-shirts are now available in the Mathsoc office, MC 3038, for just $2.25 each! mathNEWS T-shirts will also be available ... when they get here ...

Friday deadline for adding

You have one more week to ADD courses: the deadline is Friday, January 23.

The deadline for dropping is Friday, February 27.

To be or not to be, that is the

BURLOAF

Last week's Burloaf was supposed to have three sections, but the last two were accidentally lost. This week, therefore, I will begin with what was supposed to be in issue A.0.

* * *

The following is an eight by eight magic square, created by Benjamin Franklin.

```
52 61  4 13 20 29 36 45
14  3 62 51 46 35 30 19
53 60  5 12 21 28 37 44
11  6 59 54 43 38 27 22
55 58  7 10 23 26 39 42
 9  8 57 56 41 40 25 24
50 63  2 15 18 31 34 47
16  1 64 49 48 33 32 17
```

It has the following nice properties: All rows and columns sum to 260; the first or last four numbers of any row or column sum to 130. Also, if you sum along a path that goes diagonally up four cells, then diagonally down four cells, you get 260. Any four cells that lie symmetrically about some point (horizontal - vertical symmetry) sum to 130. This means all two by two subsquares sum to 130.

It might be noted, that while a rather easy algorithm exists to make magic squares of any odd size, there is no known method that produces any magic square of an arbitrary even size.

* * *

The first INTEGER_OF_THE_WEEK for 1976 is

36

36 is the first triangular number larger than 1 (the trivial case) that is also a square number. 36 is the 8th triangular number (36 = 1+2+...+8) and is the 6th square number. 36 is the square of the perfect number 6, and it also factors into the two square numbers 4 and 9. A word on the Honeywell 6060 has 36 bits in it. As well as being the sum of the one triangular number 36, it is the sum of the two triangular numbers 15 and 21, and the sum of the three triangular numbers 10, 10, and 6.

* * *

Now, on to this week's stuff.

Nothing is sacred from the eye of scientific research. This year is the three hundredth anniversary of the discovery of the sperm cell. Shortly after the Dutchman Anton van Leeuwenhoek invented the microscope, a medical student named Ham, using one of Leeuwenhoek's primitive microscopes, discovered the sperm cell. The year was 1676.

* * *

This week's INTEGER_OF_THE_WEEK (the second one for 1976) is

341

If you try dividing (2 ** N) - 2 by N for some values of N, it will seem that it divides evenly if and only if n is prime. ("**" represents exponentiation) For example:

2 divides 2**2-2 = 2,
7 divides 2**7-2 = 126,
31 divides 2**31-2 = 2147483648;

but

4 does not divide 2**4-2 = 14,
6 does not divide 2**6-2 = 62, and
18 does not divide 2**18-2 = 262142.

In fact, this "if and only if" relation would probably hold for all the values of N that you tried, and you might conclude, as the ancient Chinese did, that N divides (2**N)-2 if and only if N is prime.

This conclusion is incorrect. N always does divide (2**N)-2 when N is prime, and sometimes when N is composite. The smallest composite number which destroys the hypothesis is 341. (2**341)-2 is a 103 digit number, so I guess it is reasonalble to expect a person not using a computer to give up before reaching 341, and use engineer's induction (it's true for the cases I tried, therefore it must be true) to come to the incorrect conclusion. (Burloaf used Unix to verify that (2**341)-2 is divisible by 341).

The decline and fall of

THE ANSWER BURLOAF

Dear Burloaf:
There ain't no such word as "irregardless".

Dear :
Your use of the double negative implies that the word does indeed exist which is what I implied by using the word in my column last week. Anyhow, I don't pay much attention to unsigned letters with things that are not words in them (e.g., "ain't"). Probably the next thing you'll tell me is that I'm a crayfish (which I'm not).

Burloaf

COMPOTATION

Waterloo Students In Toronto
WEEKLY WEDNESDAY GET-TOGETHERS

For locations and information Phone 789-9660
Pre-recorded message available
24 hours per day until April 30th, 1976.

This experiment funded by U of W Math Society
Organized by Hexad.

Waterloo pubs were previously held on Thursday nights, but this year Hexad has switched them to Wednesday.

The date and location of the first pub was published in only one issue of mathNEWS, but on January 7 there were some 80 celebrants at the "Nick". A true example of the breadth of readership!

Computing Centre Courses
for Winter 1976

The Computing Centre is offering a program of non-fee, non-credit courses to assist those wishing to extend their knowledge of computing facilities and programming languages available.

If you wish to register for any of the following courses, please send your name, departmental address, building code, and a list of the courses you would like to attend, to Dianne Hart, User Services, Computing Centre, MC 2008. You will be informed of the room number for the sessions via inter-office mail.

Additional information can be obtained from Clive Knowles, MC 2002, extension 3524; suggestions about the courses should go to him also.

Enrolment may be limited; classes may also be cancelled due to low response. Avoid disappointment: register early.

Introduction to APL and Applications Packages

APL offers an extensive library of applications programs. These include programs for statistics, numerical methods, plotting, annuities and cash flow, and linear algebra routines. These programs generally require little knowledge of APL to use. This course will cover: a brief introduction to APL, APL commands necessary to access the library and documentation, and APL commands necessary to save the results of a program.

DATE: January 21

TIME: 2:30 to 3:30 p.m.

INSTRUCTOR: Dave Burkett

What is a Computer?

Computers play an ever-increasing role in the lives of everyone. They aid in billing you for your credit-card purchases, control the traffic lights on the streets, and help guide astronauts on their way to the moon. Unfortunately, many people believe that computers are too complex to be understood. The course "What is a Computer?" is designed to give non-computer-oriented people an insight into what a computer is and how it can be used. The main purpose will be to remove some of the mystery currently surrounding computers. Topics will be presented at a basic level and the assumption will be made that you have no previous knowledge of computing.

DATES: January 19, 21

TIME: 12:30 to 1:30 p.m.

INSTRUCTOR: Shirley Melen

Introduction to CMS

CMS (Conversational Monitor System) is an interactive terminal system operating on the 370/158. Its conversational mode of operation, and the fact that it is a time-sharing system, make it ideal for text preparation, program development, debugging, and execution. CMS has an easy-to-learn command language, and a simple file structure. Of particular interest to some people is the fact that CMS does not have many of the restrictions imposed on BATCH programs on the 360/75, such as the limited availability of main storage. Most language processors and applications packages are available under CMS. In addition, FORTRAN H Extended, PL/1 Optimizer, Basic, and SPEAKEASY are available only through CMS.

This course consists of two sessions in which the command language structure and the creation and manipulation of files are explained and demonstrated. A terminal will be available to show how a program can be typed in and executed with the resulting output being displayed on the screen.

DATES & TIMES:

Section I:	January 20, 22 2:30 to 3:30 p.m.
Section II:	February 2, 4 10:30 to 11:30 a.m.
Section III:	February 17, 19 1:30 to 2:30 p.m.
Section IV:	March 1, 3 3:30 to 4:30 p.m.
INSTRUCTORS:	Paul Snyder (Section I) Shirley Melen (Section II) Sally Riggs (Section III) Martin Wiseman (Section IV)

Introduction to SPEAKEASY

SPEAKEASY, which runs under CMS, is an interactive, easy-to-learn language that was developed at the Argonne National Laboratory. It is intended to provide novice and experienced computer users with the means of quickly formulating a problem for computer processing and for obtaining answers in a minimum of time. After only one session with SPEAKEASY you will be able to easily solve problems in a desk calculator mode. SPEAKEASY also has many built-in functions making it simple to use for plotting, statistical analysis, integration, interpolation, matrix algebra, and many other applications.

SPEAKEASY has a vocabulary of over 400 words, each of which performs some specific computational function, and all of these are explained in HELP documents which are part of the language. Tutorial sessions are also included for helping new users to learn SPEAKEASY.

Each session will be an introduction to the basics of using SPEAKEASY, including how to use the HELP files and the tutorials. Since SPEAKEASY is so easy to use, the main part of each session will be spent demonstrating the various capabilities of the language.

DATES & TIMES:

Section I:	January 22 10:30 to 12:00 a.m.
Section II:	February 5 3:30 to 5:00 p.m.
Section III:	February 16 3:30 to 5:00 p.m.
INSTRUCTORS:	Sandy Hemphill (Section I) Malcolm Robinson (Section II) Paul Snyder (Section III)

Another neuro-toxic

{ GAME of the WEEK }

game #1 : (SPROUTS)

Brief history :

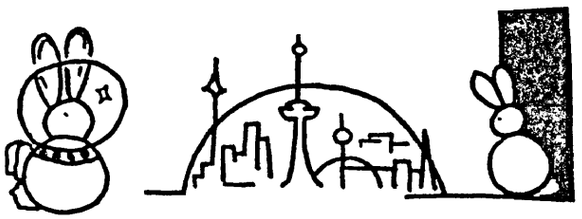
Invented on the afternoon of Tuesday, February 21st 1967 by John Horton Conway (inventor of "life" and other diverse diversions) and Michael Patterson, after having tea in the common room of the mathematics department at the University of Cambridge.

How to play :

Starting with n spots (for starters try n = 3 or 4) players take turns joining spots and then marking a spot anywhere on this line. These lines must follow these rules : (1) a line must not cross itself or any other line, nor may it go through a previously created spot; (2) no spot may have more than three <3> lines coming from it. < ie. it must always be an undirected planar graph where no vertex has valency greater than 3> The winner is the last person to be able to construct such a valid line.

Reference : Martin Gardner's Mathematical Games column of Scientific American (July 1967).

The University of Waterloo Science Fiction Club



There is a new club on campus! The UCW Sci Fi Club, alias WATSFIC, received approval from the Fed's Board of Entertainment on Tuesday. The organizational meeting for this term was last night (Thurs. 15 Jan. at 7:00 pm in CC 135). But since I am writing this Tuesday night I don't know what happened (will happen?). The purpose of the club is to promote an interest in science fiction on campus and to facilitate interchange between SF fans. Some things we hope to accomplish are: the production of an SF newsletter/fanzine, regular showings of quality SF movies (NOT Godzilla meets the Swamp monster), and to maintain a list of SF books available for loan to members. There will be regular meetings of the club every Thursday at 7:00 pm in Rm. 135 of the Campus Centre.

comment on game #0

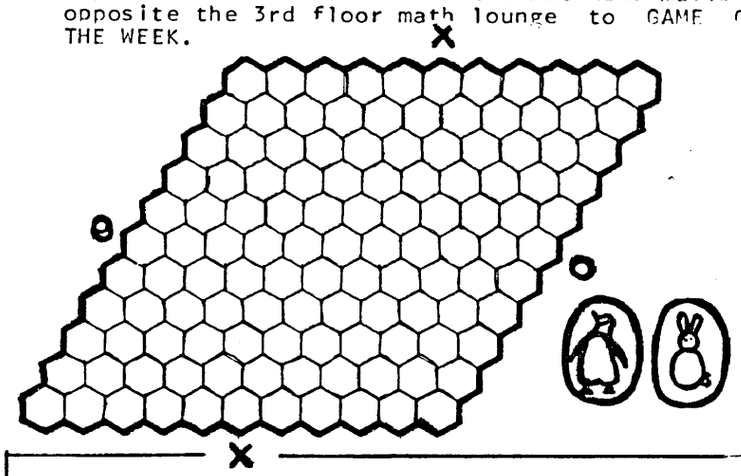
As you will have realized by now, the fundamental problem with HEX is that you need lots of Hex sheet blanks. Either you can xerox yourself copies of the blanks that follow, or you can buy a pad of n for about n/2 cents printed by 3M and available at Toronto's Mr. Gameways and elsewhere we hope.

Please realize that HEX is not as trivial as it may seem at first sight. Only after game approx. 100 do you begin to see the depth. Many confuse it with GALE (alias BRIDGE-IT), which has been completely solved (and is thus uninteresting). HEX, however, on the 11 x 11 board defies solution, although there is an existence proof that the first player wins.

HEX ON !!!!

Although there is no t-shirt prize for GAME OF THE WEEK, we welcome all comments critisisms suggestions for other games, mail-bombs etc. . If you dont understand something, or want to learn more contact us, or use our mentioned references.

WHERE : Mail userid mathNEWS on the 'bun or deposit scribbles etc in the mathNEWS mailbox opposite the 3rd floor math lounge to GAME OF THE WEEK.



The University of Waterloo Student Chapter of the Association for Computing Machinery

The Computer Science Club is going to hold its organizational meeting for the winter term of 1976 on Tuesday, January 20, at 7:30 in MC 3006.

At this time, a new executive will be elected and memberships will be handed out. As usual, it will cost you a dollar to join. Possible things that the club might consider doing will also be discussed.

This term, a trip to the University of Toronto is planned to see what is going on there in terms of computer generated graphics. When we go depends on when arrangements at the U of T end can be completed. The trip was originally scheduled for last term, but due to bad planning, had to be called off at the last moment.

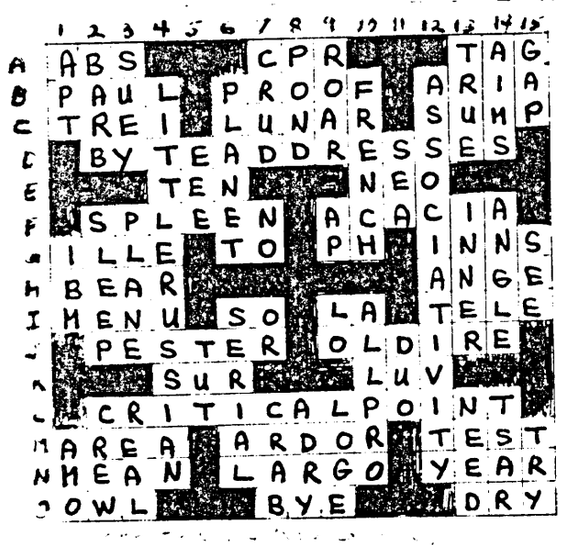
Last term didn't see the CSC do any activity such as go on a field trip. Perhaps this term we can do better. It depends a lot on how involved the members get. The CSC did operate a library of computer manuals and papers, which members could sign out. The CSC, after getting tangled up in a few bureaucratic procedures, even managed to give out a few Honeywell userids. Also, if you choose to join the ACM, the CSC will chip in a dollar (your membership fee) towards the ACM membership fee.

GRIDWORD

Bk they are classified
Cl the racer's edge
Dc rub out
 g radio band
 m texas tea
Eb yield
 f chemical balance
Fa new reversal
 e tough luck
 h almost a friend
 k you (latin)
Gg over the shoulder boulder holder
 i wicked
 l shelter
Hm jested
 n Israeli gulf
 o color of phantom's beard
Ie three in ki down
 k gold
Ja swoop
 b madness
 c tolkien troll
 f ensnare
 j a short honey-maker
Kd urban guerilla group
 g beam
 i 10 for a down
Le somewhat deranged group of whales
 h zest for life
 k a dull hog
 o limbs
Mj wager
 n part of a word
Nc i (object)
 m apl storage area

Aa one who swops
 h lie
 l tube
Ba spring drainage
 h thought
 m hooker
Ca neuter
 d a tribe
 h cables
 n 2/3 of a simian
Dc recedes - "b"
 g rock up a pole
Eb terminal
 f trudeau
 i fifty twice ?
 l math color
Fa riches
 j and (latin)
 m leninist youth army
Ga dud car
 g neck apron
 k we
Ha seen backwards
 f a favour
 l open slightly
Id heinlein's forte
 g connector
 k positive pole
Ja guerilla group
 e -- deum laudamus
 j threw off
Ka a cocknev's time units
 f bluenose country
 i you
 l a german no plus one
La naked
 k young flower
Ma a local continent
 d a month
 j feather snake
 m exist
Na bike makers
 e campus library
 j audio beetle with hair
Oa having vision
 f prison
 j meetings

Aa deck a tree
 b a dull furrow
 c article
 d without a doubt
 e newts
 f slightly deranged umpire
 h replenish
 i desired perfection
 j snoopy is one
 m high
 n crevice
 o a kansas city



This Week's ANA GLIMPSE

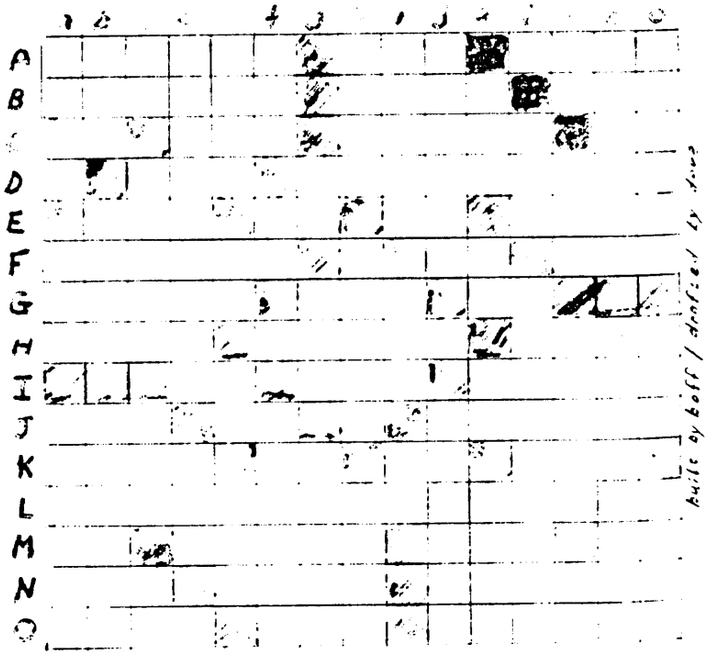
Would you believe that it took seven flips of three coins to "randomly" choose this week's grid winner. Of the eleven submissions, approx. 72.72% were correct. After Dave McDonald won the toss four times, and Dave Newell had won it three times, the latter gave up and so this week's winner became

----> Dave McDonald <----

or if you prefer, Dave McDonald became this week's winner. Either way, he can come to any production meeting (MC 3011, Tuesdays at 7:30) to pick up a coupon for a T-shirt.

Yes folk, there were a few missing clues and whatnot in last week's grid (but what would a gridword be without such aids?). However this week we have an acting gridword editor by self-appointment. Unfortunately (or fortunately) he wishes to remain un-named; so if you have complaints, don't.

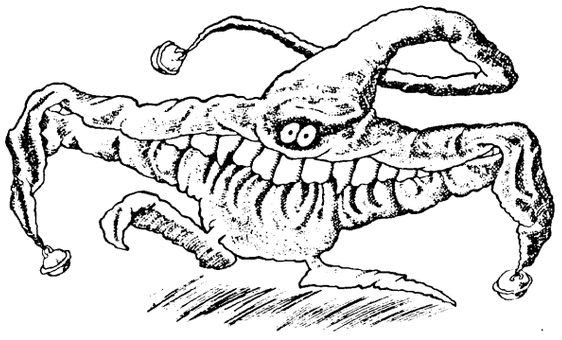
For jwbmacauley's set of comments we take pleasure in giving him the following advice, "non urinare ventum", he needs it. To Owen Leibman: "stuff it up your sleef (sic) ." To Steve Thompson: not this week, but if you try really hard and wear your best jockey shorts, maybe you can be grid pest next week.



built by boff / drafted by jmf

d. signature
si ig (s)
(title:

FEEDBACK



To mathNEWS:

HAPPY BIRTHDAY!

For those of you who don't remember, mathNEWS was started 3 years ago when 8 brave and unsuspecting students showed up at an oganizational (sic) meeting.

Since that time mathNEWS has produced 90 issues, spent over $6,500, gone through 5 editors, and drowned over 100 staff members in 200 gallons of coffee.

Not bad for the only weekly paper on campus with an all-volunteer staff.

Dennis Mullin

Editor's note:

Of those 5 editors, 4 were at the original oganizational meeting. If you can count, you may note that the original 8 of us will all soon be gone ... hopefully mathNEWS will not die away when the last of the old-timers leaves next year, but we do need interested people NOW!!

Dear mathNEWS:

Concerning the recent faculty proposals on course drop/adds:

An "add" period of 3 weeks is acceptable, but barely. There should be consideration for those unable to obtain the signatures quickly, or who have other bugs in their scheduling but were clearly active in the course already.

A "drop" period of 4 weeks is totally unacceptable. The student ought to have realistic feedback before it's too late to drop a course. The rumour I've heard is that the faculty dosen't want to teach "for free"; but I think that paying the initial fee should entitle one to as much "education" as one wants or can handle.

Students should be allowed to preregister for more than 6 courses, as this is sometimes the simplest way to see what combinations of courses are available. This could also give better information to those planning teaching situations, number of classes, etc.

Students should be allowed to attempt more than 6 courses with a far lower criterion than 75% in the previous year. Again, it's largely a matter of the student trying to plan his academic career and taking his own risks. Sometimes, the only way to catch up on a failed or missed credit is to take an extra course, rather than correspondence courses or an extra term. If a student wants to lower his average but gain more credits, he should be allowed to try.

Mike Dehaan

Dear mathNEWS:

Re the suggested curriculum changes:

I am in favor of the proposed curriculum changes (with one small excention), and particularly in favor of raising the required average for the Honors degree.

To understand that position, it might help to know why I am at Waterloo, and why (I suppose) many other people are here.

I am here to STUDY mathematics and to acquire a degree upon finishing my studies here. Since I am interested in doing something with the mathematics I will hopefully have learned, it is important to me that my degree be worth as much as possible (i.e. esteemed as highly as possible, "worth" as much as possible) so that my range of options is as great as possible: more graduate schools I am able to enter, more institutions who trust my degree as a certificate of qualification, and the like.

I support the changes because, as far as I can see, they will make my University of Waterloo Bachelor of Mathematics degree worth more. By making it more difficult to get through, the changes will make the degree more valuable to those who do get it.

It has occurred to me that the people in charge, who are an ambitious group, may be trying to move the UW B.Math. degree up a notch on the prestige ladder. I do know that in the face of what appears to be a society-wide rush to lower standards and values, the powers-that-be are raising standards: a positive move, beyond a doubt. The only possible "negative" result that I can see is that fewer people will be able to get Honors degrees, but for the people who are "displaced" there is always a General degree, or an Honors degree at another school.

The only bad feature I found in the curriculum changes appeared in the top left corner if page 6 of the mathNEWS coverage of the changes. My objection is to the undefined and arbitrary power granted to the Standings and Promotions Committee ("A student will normally be REQUIRED TO WITHDRAW ... ... if he ... is unlikely to profit from further study in the Math Faculty (in the opinion of the Standings and Promotions Committee).").

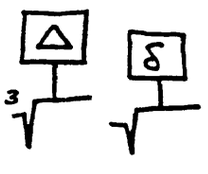
Generally, though, I think that the changes are good, and should be instituted.

James Hodges
1st year regular honours math
Renison College

Dear mathNEWS:

When will the clock in the No Smoking, C&D half of the lounge be fixed? It's nice to know when you've slept too long and missed your classes.

P. A. Nash



Lifshitz clarifies C&D policy

As manager of the C&D stand on the 3rd floor Math lounge, it has come to my attention that some people misinterpreted last week's article about the operation and start of our little enterprise. I wish to, honefully, clear up these misconceptions this week.

First of all, I think I should explain about our first week: I tried, for the first time in C&D history, to open the stand during the first week of classes after only spending less than 2 days organizing it. Fortunately, I have been successful, in that C&D managed to pay not only our suppliers, but our workers, too! As far as pay goes (and the farther the better), it too has risen to meet the high cost of beer - the workers now get more than $2 per hour (not much more than $2, but still more).

Also, I think that I should explain something about our pricing policy: Coffee and Donuts is not out to make a profit!!! Our reason for existence is to provide a service to the faculty, staff, and students of the Faculty of Mathematics. However, we do not hold back our service to non-Mathies, because we have discovered that we are used and liked by members of other faculties who have a pleasant alternative to other eating places in and around the campus. Furthermore, since we are a service, we are not out to make a profit! In fact, we add very little to our cost of supplies (e.g. kaisers and subs) because we only wish to make enough to pay our suppliers and workers each week.

If, however, C&D does manage to make some money (and that has happened before), this money is usually redistributed to Mathsoc to help them out IF NECESSARY and to help improve the functioning of Mathsoc (e.g. sports events and parties, etc.). What in fact I am trying to get across to you is this: C&D raised its prices to you only because our cost was raised by the suppliers - and they too raised their prices because they realised their operating costs had risen 28% whereas their prices had only risen 3% in the last year.

So, in conclusion, I wish to assure you that all is well with C&D from an operating point of view; that our price increases are justified; and that any and all suggestions and complaints about the service, kinds of donuts or the content of the subs and kaisers will be gladly accepted (in writing) in the Mathsoc office.

P.S.-In case you didn't realize it, I was the author of last week's article.

Joe Lifshitz

Federation Presidential Elections

On January 28, 1976, about 25% of you will vote in elections for the person to preside over the organization that spends about $275,000 of your money (at the rate of $12.50 per term in the form of a compulsory fee paid by each full-time undergrad). Yes, the Federation is holding an election for president. This is a key election which will set the direction the Federation will follow in the years to come, but (barring an unexpected stampede to the polls) 4,000 students, at the outside, will vote out a total of over 16,000 undergrads, grads, full-time and part-time students on or off campus.

As mathNEWS went to press a few hours before the close of nominations, there were three declared major candidates with the possibility of one or two others. Here is a description of the three declared candidates.

PHIL FERNANDEZ is a third year History student. He was founding member of the Renison Academic Association in 1974, and is currently president of the International Students Association. He has also been an active member of the Anti-Imperialist Alliance.

SHANE ROBERTS is the current director of Education and External Relations, a post he has held since 1974. Until the summer of 1974 he was a student in Integrated Studies (and before that Physics). He is now a full-time employee of the Federation's Board of Education. He is a former Federation President, having served for four months in 1972-1973, and a former council rep (1973-1974).

BRUCE RORRISON is the President of the Arts Society and an Arts undergrad rep on the Fed council. Currently he is a third year Drama major and sits on the Arts Faculty Council. He has held other positions with the Arts Society and formerly sat on the Campus Board.

It has not been confirmed whether MARK WILLS, an Arts rep on Fed council and a member of the Anti-Imperialist Alliance, has decided to contest the Presidency.

All the candidates will speak at a Forum to be held Wednesday, January 21, at 1 p.m. in the Campus Centre Great Hall.

All candidates are invited to write a brief description of themselves and their platform (with maybe a photo) for next week's mathNEWS. We reserve the right to limit submissions to 100 words.

It is 9:35 Wednesday morning and although I am typing the masthead the issue is not yet fiinished... howeever, the missing headlines cannot be produced until TSS returns at 10:00... contributions came from Loe, Joe that is, Lifshitz; Hexad; Clive Knowles... Gary Prudence points out that people wanting to work behind the scenes or in polling booths in the Federation election should go to MC 2065 at 4:30 on Monday... Randy Morrison proclaims that "Some Uneasy Problems" will be back next week, and asks for problems and solutions to be sent to mathNEWS via the usual means, viz., mail mathNEWS on TSS, the mathNEWS mailobx across from the 3rd floor lounge, or personal appearance at a production meeting, which begins 7 p.m. any Tuesday in MC 3011... this paper is financed by, but idnependent of, Mathsoc; Graphic Services will produce 1200 copies of this issue; the all-volunteer bit was mentioned on page 7... we were: boff and DAVE NEWELL a drafty builder; A406A7A9B3B3A50303 which he claims is Hollerith for DWGILLETT - sounds like a COMITtee job to me; GRAHAM ASHBY, Jonny Holiday, RLBIDDLE, and (in spirit) Threar, the gamesters; MICHAEL (not Godzilla) DILLON; PETE csc/prez RAYNHAM; RANDALL no-longer-acting aS managing editor McDOUGALL; J helpful prolific J staunch sleepy LONG; and whatsisname the co-editor (no puns please!) MARK S BRADER... to Owen, we were both wrong, what I meant was "senidenary" (check Knuth)... to RJB, kudos for trying ...the sun has emerged, the snow stopped, it is 10:00 and time to finish thissue off... to Dennis, Randall claims your suggestion was a bit late... several people here seem to have arrived at it independtenly... ***ERROR*** PAPER EXHAUSTED, mathNEWS TERMINATES ABNORMALLY