

# MATHSOC CAPITALIST SOCIETY

The first Math Soc meeting of the term took place on September 9.

Randall McDougall gave a report on the lockers. The third floor lockers were all given out between 9:40 and 11:00 a.m. on Sept 9, 1975. The queue of people waiting for a locker was the worst ever. There was a short discussion about the possibility of buying new lockers. They could be placed in the spots currently occupied by coat hangers.

Gary Dryden gave a report on the sad shape of Antical. Virtually nothing was done to it during the summer so a secretary was hired to do the typing this term. The last report was that Fly and Scrooge were frantically correcting the first copy. The format of the Antical will be similar to last year, but it will be in tabloid form which costs one quarter of the price of the nicely bound version.

Ron Hipfner gave a report on C & D. He explained the hiring procedure this term. The official explanation of the procedure is:

"Last term the hiring procedure was entirely random; whoever manage to reach the list first got the job. Only about 30 people work. This is not fair for those who do not see the list. He is now having people sign a list for interviews; he will evaluate persons on communication ability, personality, and their ability of doing the job."

Gary Prudence noted the fact that R.W. Mudie has the power to shut down C & D if he so wishes. It was suggested by J.J. Long that C & D switch eventually to buying their supplies from Mr. Mudie instead of the current supplier.

J.J. reported on the fact that the Feds have a new logo which looks like a "weird F". The first Federation meeting with quorum was September 5. The pub is now operating at full capacity.

Kathy Wilson and Gregg Andrews were appointed Co-Mathletic directors.

It was decided that Arts and Math will sponser a semi-formal.

MathNEWS was allotted \$100 per issue until a new treasurer is appointed.

Fifty dollars was given to mathletics to get the season underway.

MONDAY SEPTEMBER 19, 1975

ISSUE 9.2

# math NEWS

## A SORE PEN ?

Last Friday morning, the freshpersons were subjected to yet another in a seemingly endless series of inconveniences in the form of "voluntary" experimental testing. The fact that the tests were not mandatory was not stressed so out of fear of doing yet another thing wrong, we arrived, en masse, at the PAC at the ungodly hour of 8:15 a.m. Told to arrive 15 minutes before starting time, we were slightly confused at the delay resulting in our entering the gym at exactly 8:30. Encouraged by the sight of a fresh new pencil (which we later learned we couldn't keep) we began the examination of our proficiency of the English language. I think that comprehension of the instructions should have automatically resulted in a perfect score. We proceeded to fill the allotted hour in deciding answers by recognizing familiar ( $\leq 3$  syllable) words.

Then, seriously doubting our ability to communicate, we went on to see how much math we'd retained over an eventful (possibly mind-damaging) summer. Although slightly prejudiced in favour of this subject (already being a loyal (brainwashed) mathie) I found this section reassuringly straightforward. Feelings expressed by fellow freshpersons seemed to indicate that at least one Ontario high school has equipped its students with a working knowledge of mathematics.

Hopefully, our valiant efforts were not in vain and the results of the tests will prove to be conclusive.

Possible conjecture: Ontario students can transpose matrices but they can't spell. (By the way, did anyone actually steal a pencil?)



## PARTY

All frosh up to 200 per night are invited to attend Mathsoc's annual Wine and Cheese parties Mon. Sept. 22, Thurs. Sept. 25; 8-12 p.m. Tickets are free and can be picked up at the office (mc3033) by showing a stamped id card (one ticket per card). Leftover tickets will be made available to the other years on the day of the parties so look for announcements.

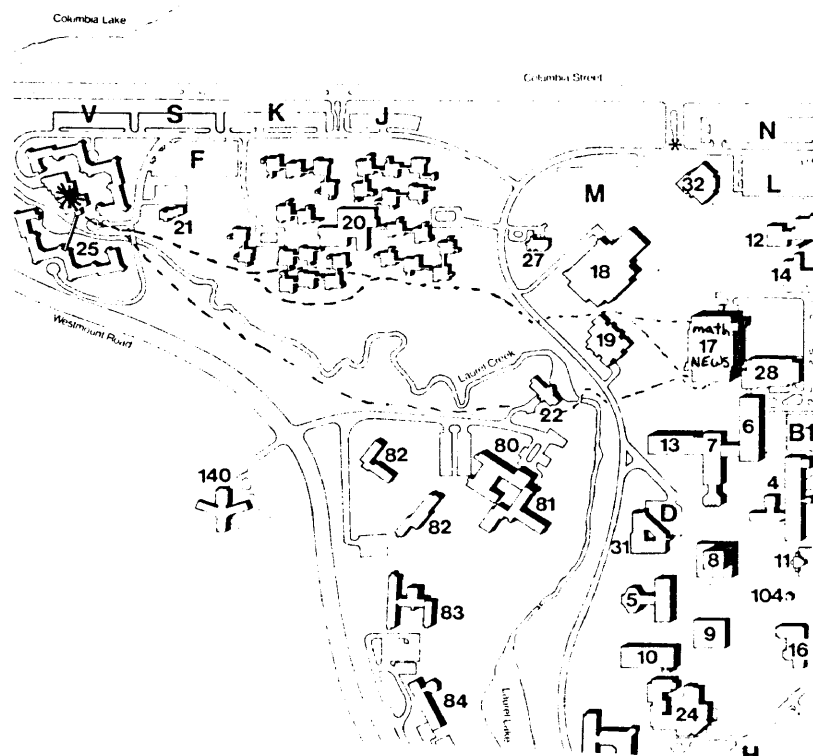
## WEEKEND SPECIAL!

By special request there will be another picnic Sun. Sept. 21, 12 noon, Columbia Lake. The lake is located directly across the road from the villages. A barbecue will be held at the fire pit between the football and soccer fields. The Math slow pitch baseball team will be playing and there will be other sports. We will be there so look for us.

GO WEST

## YOUNG MAN

The exam room, which used to be on the fourth floor of the math building, until the expansion of the library bumped it off, again has library problems. The Arts library is expanding into the basement, forcing the exam room to move again. It is now located somewhere in the bowels of Village II. We have supplied a map to enable you to find your way to this convenient spot. The dotted lines indicate paths from the math building to Village II.



for brunch: **E** & **K**  
Math Contests

Attention undergraduate students. Please take note of the following math contests:

- (1) the Special "K" Contest (for freshmen)
- (2) the Big "E" Contest (for upper year students)

both to be held Monday, November 10, 7:00 - 10:00 p.m.

These contests are part of the preparation for writing the Putnam (i.e. defending our North American championship).

Students interested in writing these contests or attending Putnam practice sessions should sign one of the notices in the Math & Computer Building, or the one on Professor Klamkin's door, MC 5187.

unCLASSIFIED

classified

### Books For Sale - HALF PRICE

1. Fortran IV with Watfor and Watfiv; Graham, Dirksen
2. Lecture Notes for Math 340A; Cowan
3. The Calculus, Part I; Leithold
4. Introduction to Logic; Copi
5. Introduction to Optimization; Berman, Fryer
6. Algebra Notes for Math 129; Moskal
7. Psychology - Search for Alternatives; Dyal et al.
8. Management - An Integrated Approach; Torgersen, Weinstock.

Call Gary Phippard at 247 Erb St. W. Apt. #19, phone 579-0577

Car For Sale: 1972 Vega GT Hatchback "LANDCRUISER". Mint condition, many options, undercoating, etc. Performance and economy mods. Serious inquiries only, please. Phippard, 247 Erb St. W. Suite 19, 579-0577

REDUCED UP TO 50%. Books for sale. Physics, astronomy, anthropology and economic texts available. As well as "An Introduction to WATIAC and WATMAP" (reduced to \$4.50) and "Calculus - Elements of Modern Mathematics" (only \$5.00). Phone 884-6659 after 7 p.m. and ask for Wayne.

### FOR SALE

Math 235B The Mathematics of Life Insurance \$5.00  
Math 234A Applied Differential Equations \$10.00  
Life Insurance by Dan McGill \$10.00  
All books are in excellent condition. Call Doug (Village 1, S2, room 103) at 884-9497.

FOUND: 1 Concordia Club Oktoberfest Ticket for Mon. Oct. 13. Group name is Tuchlinsky. Call Gord at 884-3791 at 7:00 p.m.

You've seen them! Now you can own one! Yes your very own kneller T-shirt for a mere \$3.00! This is the only official Kneller shirt with screening on both sides. Any colour, any size. Kneller Canada wants you! Remember "The world needs Kneller-phones!" Interested? Of course you are! Just mail me, DTDODGE, on the 'bun giving quantity, size and colour. When the shirts arrive a draw will be held for all the buyers with the prize being a Kneller Phone Company BLUE BOX!!

### tss JOBS

The Math Faculty Computing Facility is looking for undergrads to volunteer to work on timesharing software projects, such as rewriting existing commands to make them more understandable, use better command syntax, and to make them run faster.

They are also looking for a communications software expert for GRTS (General Remote Terminal System) and NPS (Network Processing Supervisor) which both run in the DATANET 355. Current projects will be to maintain GRTS, install and check out NPS, connect the Honeywell and Computing Center systems, plus nearby passing mini-computers that want to talk to tss.

If you are interested in one of the above please contact Rick Beach (userid rjb) ext 2192 MC5157.

# Anti Cal Preview: take it all off

sparks were observed flying from his chalk  
the markers should be recycled  
if this prof got his doctorate there is hope for  
us all (this comment voiced repeatedly)  
this class brought tears to my eyes; most  
enjoyable course so far  
plays a mean trumpet  
markers were dipsticks  
rambling rose from the ewe ass of a --- where he  
rambles no one knows  
why does \_\_\_\_\_ hate co-op students  
xxxxxxxxxxxxx the prof is kinda cute  
roses are red/violets are blue/calculus  
stinks/and \_\_\_\_\_ too!  
I wish she had taken her clothes off (more  
often)  
I enjoyed taking this course and look forward to  
taking it again next summer  
she's never taken her clothes off in class and  
I'm glad

more

# SECURITY?

The following memorandum has been issued regarding the changes in security.

Because of the present budgetary constraints, there will be some cutback on the amount of checking of the Mathematics and Computer Building, which will be carried out by the Security Officers. I would, therefore, ask you to make sure that you lock your offices and other areas for which you are responsible before you leave, and also instruct secretaries and technicians under your supervision to do the same. Also, please phone Security if you notice any unauthorized persons in any of the areas which you are using. To assist Security, I am also suggesting that anyone using your office, or other areas under your jurisdiction, should have a note of authorization signed by someone in the administration.

Finally, if you see someone at any time who does not appear to belong to the Faculty of Mathematics, please assist Security by informing them about this or take whatever action seems appropriate to ensure that our facilities are not misused.

Thank You:

W. F. Forbes

## NEW, IMPROVED, BETTER THAN EVER



If you are going to buy a calculator you are faced with an enormous range of calculator capabilities and prices. Here are some guidelines on how to approach the matter:

1) Decide what your main requirements are. If most of your calculations are simply additions and subtractions then a fixed-point (i.e. does only integer arithmetic) four-function machine might be all that you need. Such a machine sells in a local store for under 13 dollars. However, if you do a lot of work with square roots you need a machine with that capability. There is little use in buying a machine with many fancy features if you do not (or rarely) use them.

2) Don't buy a calculator when it first comes on the market. A case in point is the SR-51 put out by Texas Instruments. In the U.S.A. its price has changed since it was introduced as follows:

List price (March)	\$224.95
Advertised price (March)	\$ 179.95
Advertised price (April)	\$ 137.90
Advertised price (June)	\$ 124.50

3) Buy at a discount from the manufacturer's list price because the list price is so much fantasy. In June the SR-51 sold for \$125 when the list price was \$100 higher.

4) Don't buy today, buy tomorrow. Each new generation of calculators has an increase in speed and reliability of 10 times, an increase

in memory capability of 20 times and a decrease in system cost of 2.5 times. In other words in the future you are going to get more for less.

5) If possible perform some sample problems on the machine before buying to see if the display and function keys are in working order and to see if the problems are performed correctly.

The two main "brand name" calculator companies are Hewlett-Packard and Texas Instruments. There are host of other lesser known companies producing calculators. Be sure and investigate all possible sources so you can obtain the most in capability for the least in cash outlay.

## this week

FLASH!!! A reliable source has informed us that eight 2741's from 3018 will be sold to Arts (if the Artsies only knew (not that it would make any difference)). In place of these terminals MFCF will be getting some CRT terminals, perhaps with APL character set capability. The CRTs would only transmit at 150 baud because the lines to 3018 are on a "low speed line adapter". To go faster (300 baud) would force them to reduce the number of terminals (heaven forbid), or buy expensive interfaces like the ones on the teleray CRTs.

DOWN

1. Australian bird
2. Playground
3.  $4\pi r^2$
4. Tumult
5. Sport: jai ---
6. Huge dog
7. Norse explorer
8. Exanthema
9. French soul
11. Grid's frame of reference
12. Batman's manservant
13. First partials null, but is neither max nor min
14. A very general set of points
19. Once around
20. Estuary
23. Bunny measure
24. Singer Della ---
25. Hitler's "Brown shirts"
26. "Fe --- Fo Fum"
27. =
28. Series
29. Computer designers
33. Supped
37. Stolen weapon
38. Logical connector
39. Exclamation
40. Cosell's new sidekick, Mongo ---
43. Vic Tanny's
45. Italian six
48. Hurdle
49. To be (latin)
50. Miss Gabor's
51. Famous Yankee reply at Bastogne
52. Many
53. Vertex
54. Autograph
55. The Bills are in it
58. Vanquished Southern general

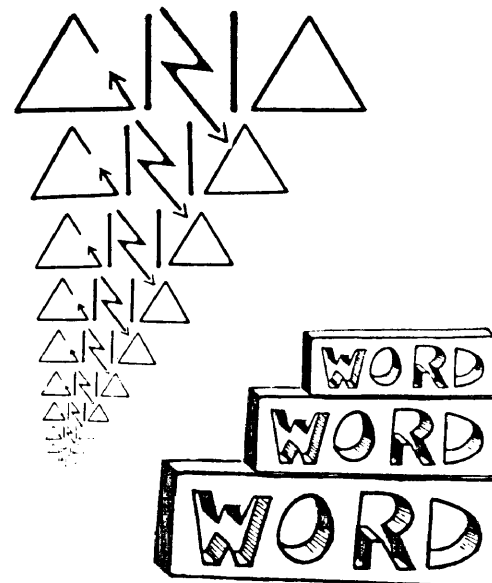
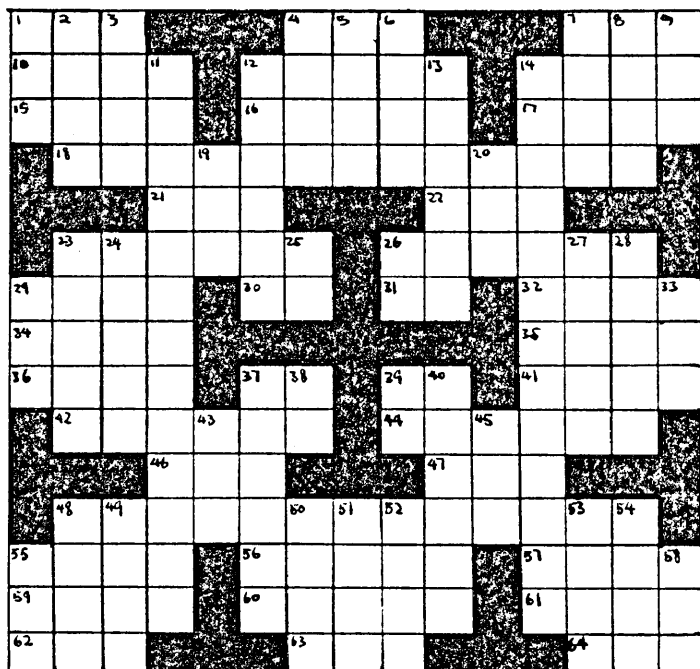
ACROSS

1. Agency often quoted for car mileage figures
4. Dejected
7. Pitcher's most important stat.
10. Man's name
12. World supporter
14. --- Khachaturian
15. First synthesized organic compound
16. Climbing plant
17. Ascend
18. Gauss
21. Gob
22. Croak
23. Pancakes
26. Fire components
29. Canadian Aardvark Education Society
30. Russian yes
31. That is (latin)
32. Latin water
34. German three
35. French night
36. Spanish house
37. Hawaiian Don ---
39. Allright
41. Expos' --- Colbert
42. Vectors and scalars are special cases of this
44. Ado
46. Apposite
47. Vote for your council --- !
48. Sixty-year olds
55. American National Standards Institute (a version of COBOL)
56. Palate hanger
57. Induction ---
59. That mad thing in February
60. Belonging to a certain defense organisation
61. It connects 2 nodes
62. Electrical appliance outfit
63. The Concorde's competition
64. Chemical suffix

	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
A	T	R	O	G	L	O	D	Y	T	E	T	A	H	A		
B	R	I	V	E	A	N	A	G	A	R	D	E	N			
C	I	G	A	S	T	A	L	E	T	I	D	E	N			
D	L	I	T	H	O	S	T	A	H	A	R	D	Y			
E	O	D	E	N	P	A	R	A	L	L	E	L				
Z	G	C	O	G	N	U	L	L	E	S	S	E	N			
H	Y	O	T	B	A	S	A	L	T	S	S	E				
0	R	E	N	T	A	L	I	E	N	S	O					
I	T	E	S	T	S	L	I	M	E	O	F	P				
K	H	S	C	H	O	O	L	S	H	O	O	T				
A	O	A	L	I	B	A	B	A	E	N	E	M	Y			
M	R	E	Y	B	T	O	L	E	T	M	E	T				
N	O	N	Q	R	E	H	A	L	F	A	B	A	S	E		
3	U	J	U	R	I	S	T	F	L	O	N	I				
0	G	U	R	A	N	S	H	E	L	F	S	I				
π	H	P	S	A	G	S	O	C	I	F	N					
P	E	F	I	L	I	T	T	C	E	G	G					
Σ	S	H	A	M	G	R	A	T	I	E	D	A	R			
T	T	A	N	I	D	O	L	E	V	I	T	A	T	E		
X	B	E	C	A	L	M	S	E	A	N	C	E	S			
	U	S	A	M	O	U	N	T	L	A	I	R	S			

CREATED BY RANDALL E. McDONALD

NAME :  
PHONE :



=====  
\*\*\*\*\*GRIDWORD COMMENT\*\*\*\*\*  
=====

Only 1 of the 6 entries to the first Issue was correct and that one was the work of Dave McDonald. So find the errant editor

--> Dennis Mullin <--

at next week's mathNEWS meeting, Tuesday night, and plea for your T-shirt, David. Mark Brader confused his face with his place of worship and thus fell into disfavour once more.

The winner of the gridword for the freshman (man not person) issue was David Gillett who already knows about it. There was some difficulty in picking a correct answer as one of the clues (continuing a non-continuous tradition) was wrong. It wasn't really a cue he was holding.

And so another gridword closes to a come....

# math LETICS

Intramurals are getting underway this week with men's flag football and soccer starting yesterday. The sheets are up for basketball and the hockey lists will go up next week sometime. All the information you need is contained outside the third floor lounge. One bulletin board is reserved for practice notices, games and schedules. It is located directly across from the centre doors between the two lounges.

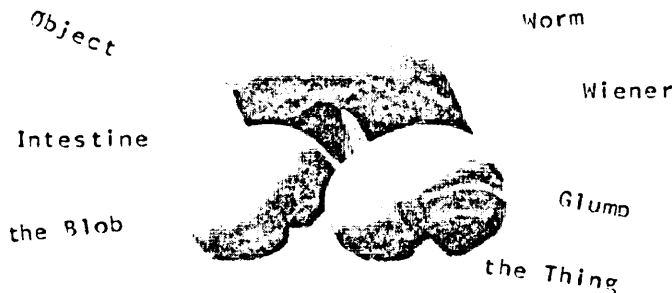
Complete schedules for football and soccer should be posted on the bulletin board by today.

Any teams wanting T-shirts or hockey jerseys should contact Gregg Andrews at 745-3079 or leave your name and number in the Mathletics mailbox in the MathSoc office. T-shirts will be delivered fairly quickly and are of good quality. I can provide team captains with a price list. The Intramural Council will get 50¢

for every T-shirt sold to help with funding events. These shirts are made by Geoff Epstein, for those of you who have dealt with him before. Geoff will not take orders directly.

Math Mucks basketball practices will be held each Tuesday from 9:00 a.m. (sharp) to 10:15 a.m. These will be shooting and scrimmaging practices. Please try to come at this time. The first season games for intramural basketball will be Sunday, October 5 or Monday, October 6, depending on which league a team enters.

Would all persons who have already signed up for basketball please indicate whether they wish to play on Sunday or Monday beside the position they signed. All new entries should also indicate their preferences.



Sometime during the summer, some artsies decided to attempt to beautify their corner of the campus by buying or building a statue or monument, and placing it in a prominent place, where the other faculty's students would pass and drool with jealousy.

Boy, did they goof.

For the princely sum of five thousand bucks, they got a big red thing which can only be described as an ugly worm. Instead of being on a pedestal, it is just set down in the grass where Physical Resources can't get close enough to cut the grass growing up from under it. The thing looks like it crawled out of a hole somewhere, and was sexually assaulted by a passing n-jineer, and then, quite understandably, died of shock. I wouldn't give you two cents for the thing, which means whoever was responsible got took for \$4,999.99.

The n-jineers have a moat in front of n-jineering 2, as a feeble attempt to make their faculty (sic) seem presentable. This particular building, and its associated moat, were built in 1952, and both haven't been cleaned since. There is a pulsating green thing in the bottom of the fountain which threatens to crawl out and make the Andromeda Strain look like chicken soup.

The S.B.O.C. (Superior Beings On Campus), the Mathies, have a large monument outside M&C, which looks very much like somebody dropped a dinosaur egg on a fire hydrant. This artwork is

much more complex than meets the eye. For example, it is not chopped out of a handy chunk of stone, but rather out of metal. This seemingly useless fact was discovered by a certain hairy physicist, who got mad at it and threw a Frisbee at it. The methods in which scientists do their work is sometimes amazing!

However, the greatest symbol on campus remains - The Pink Tie, known to mathies as Pinkie. Pinkie is presently stored in a top-secret location known to approximately 200 people. It has been defaced by Kathy-X and the n-jineers, both of which are equal in destructive power. Pinkie will relieve a facelift in the near future, and then will be flown in the true splendor it deserves.

## FEEDBACK

Dear mathNEWS,

I will truly enjoy receiving mathNEWS while off campus. It is the university newspaper which most interests me as a mathie.

Thank you.

-- Martha

Dear mathNEWS,

Enclosed please find \$1.25 for a subscription to your interesting, informative, exciting example of avant-garde journalism, etc. Please send it to us soon.

-- Judy Skuce & Co.

It came upon a midnight

heat resista

# BURLOAF

Room 3008 has been equipped with 25 new T.V. sets as well as a Tektronix 4013 terminal (the 4013 draws lines as well as type characters). The displays monitor the lecturer's display, with one T.V. serving two students. Already the statistics people have come up with some programs that make use of these displays for Math 223 and 233.

A little past the Teleray rooms on the third floor is a new room. It was created by joining two offices and two tutorial rooms together. Right now the model train resides in there. Other additions to this lab that are being planned include storage tube graphic terminals such as the Tektronix 4010 and the Conographics 12. Although I don't believe it, someone suggested the reason this lab is situated where it is (room 3061/3063) is to create a buffer zone between the Telerays and the grad students using other offices.

The arts faculty has decided to buy eight of the 2741's in room 3018 (what a mistake -- for Arts). The plan is to replace the departed ones with shiny new T.V. terminals. Unfortunately these terminals will only be able to run at 150 baud (15 characters a second - a mite faster than a 2741) due to the computer's hardware. To push the speeds to a higher figure means either decreasing the number of terminal available, or spending money on expensive new hardware interfaces.

Now, we present a history of computing in the early days when the basic direction that computers would develop was being decided.

The first true computer was designed in 1834 by the Englishman Charles Babbage. Two centuries before, the Frenchman Pascal had built the first adding machine which was a device composed of wheels with teeth. Babbage's design was the first real computer however, because it could store data but more important, it could store a series of instructions that told the machine what to do. The purpose of the machine was to print up mathematical tables. Unfortunately, Babbage wasn't able to get any money to build the thing. He had been working on a smaller machine, however, its completion was being hampered by the fact that the parts needed for the machine could not be made to the fine tolerances required by the design. The British Government having already invested 17,000 pounds into this project, decided "no more", and so Babbage's machine was never built.

In 1937, Howard Aiken of Harvard University wrote a paper describing how Babbage's designs could be realized to a great extent with already existing IBM devices. It turned out IBM was willing to fund a venture to build such a device for this reason. So, in 1939, the construction of a machine was begun. It was called the IBM Automatic Sequence Controlled Calculator (or IBM ASCC) or Harvard Mark I, depending on the background of the speaker. It was a decimal machine, with the numbers being stored on ten-position wheels. The numbers were moved around in the computer with electricity, but the arithmetic was carried out with mechanical gadgetry.

Around the same time as the ASCC was started, George Stibitz of Bell Telephone Laboratories started working on a computer which would be assembled from telephone and teletype devices. Bell had an advantage in that they had a reliable relay and well experienced as far as design and maintenance went. In all, they built five computers. The first was the Model I which had 450 relays and did arithmetic of complex numbers. After the Model I came the Model II with 440 relays, the Model III with 1400 relays and the Model IV with 1425 relays. Then in 1944, they felt they had enough know-how to build the Model V, a general purpose machine with 9000 relays. Because the machine was built from relays, there was no problem of layout as had been encountered with the ASCC, where the various gears had to be engaged and disengaged from a four horse power motor.

On another front, the Army's Ballistic Research Lab needed a quicker way to make their ballistic tables (World War II had just gotten under way). They had been using an analog computer, called a differential analyzer, designed by the Moore School of the University of Pennsylvania. BRL got together with the School and used a larger machine they had, but this still proved unsatisfactory, because, among other things, a hundred desk calculators were required to support it. In 1943, Dr. John Mauchly, a professor at Pennsylvania, wrote a paper proposing electronics as the way to go. He had seen a machine at Iowa State College which had 300 vacuum tubes and had not been completed. Presper Eckert Jr. added an appendix to the paper, giving a possible implementation scheme. The Army decided to invest \$51,700 into the design of such a computer. It was called the ENIAC for Electronic Numerical Integrator And Computer. It had 18,000 tubes in its design. A major problem was reliability. Vacuum tubes are not very reliable and generate a lot of heat when running which tends to cause other electronic components to fail sooner. Various tricks were used to increase reliability, such as running the filaments at reduced voltage, operating the tubes at one-fourth their rated power, and never shutting the machine off. This machine was a decimal machine which stored digits in circuits consisting of ten flip-flops, which led to high costs for the storage.

On Monday, August 7, 1944, the ASCC was unveiled. It had undergone a complete testing and debugging in secret. It was run around the clock, with up time records that are impressive even by today's standards.

The builders of the ENIAC started to become a little worried, because if they took too much longer the Army might pull out support in favour of an ASCC type computer. However, in February of 1945, after thirty months of building, the ENIAC was completed at a total cost of \$485,804.22.

Now was the time to decide which of the three designs was the best. Bell Lab's relay machine was reliable and had the least maintenance problems of the three. The ASCC worked at about the same speed, being able to accomplish an add in a third of a second. It was somewhat larger but not quite as reliable. The ENIAC, although being the least reliable and consuming large amounts of power both to run and cool it (it was also the largest of the machines) had the speed of electronics on its side. It could complete an add in 1/5000 of a second.



## BURLOAF (cont'd)

Soon afterwards, the Mark II was built, which was twelve times faster than the ASCC, but this was still much slower than the ENIAC. After that, Harvard got onto the electronic bandwagon and built the Mark III with vacuum tubes. Bell decided to pull out as they were too tied to relay technology which was too slow. Bell's next contribution to computers would be the invention of the transistor. Eckert and Mauchly, ENIAC's builders, went commercial to form a company that eventually got absorbed into UNIVAC. What happened to IBM? Need I say they knew a good thing when they saw it...

The pioneers of computer hardware had to face many new and innovative problems (i.e., get arrows in their backs). One of these problems faced the people who were using a vacuum tube machine. After trouble free usage, the machine developed some strange problems. After some tracing, they found some high voltage wires had had the insulation removed. The investigators were tipped off to the cause of this by the bodies of mice which had been burned to a crisp (?).

Bun users: If you want to sign on, but find yourself in a time of no terminals, i.e. all the terminals in 3018 (2741 or ringy-ting land), 3065, 3067 (the Telerays) or 4053 (the Hack room) are being used, it would be appreciated if you would notify either the consultants or the operators.

## KAREERS DAY

All students (1st to 4th year) enrolled in Mathematics are invited to attend a half day of Career Talks which will be held on campus the afternoon of Thursday, September 25, 1975.

Several different career paths will be described by people who are knowledgeable in their respective fields. Of a total of 12 different sessions, students will be able to attend 4 (see below for the time and location of each session). There will be a discussion period after each presentation in which students can ask questions.

To enable students to attend, all math classes have been cancelled for the afternoon.

1:30 p.m.	Optimization	MC 2065
	Federal Government	MC 2066
	Provincial Government	MC 3003
	Finance	MC 3005
2:30 p.m.	Computer Science	MC 2065
	Chartered Accountancy	MC 2066
	Statistics	MC 3003
	Banking	MC 3005
3:30 p.m.	Insurance	MC 2065
	Chartered Accountancy	MC 2066
	Applied Mathematics	MC 3003
	Marketing	MC 3005
4:30 p.m.	Federal Government	MC 2065
	Teaching	MC 2066
	Statistics	MC 3003
	Computer Science	MC 3005

This afternoon is being sponsored by the faculty of mathematics in conjunction with the department of Co-ordination and Placement.  
PLAN TO ATTEND!

## GRID FEEDBACK

It is not unfair to include in a gridword archaic words, nor foreign words, nor even foreign words that are not designated as such, as long as the designating or non-designating is applied indiscriminately to ALL such words. It is, on the other hand, downright dirty to intersect a foreign word with an undesignated archaic word, when there is a non-archaic word that could fill the same position except for the one letter at which it intersects the foreign word, and when an archaism occurring elsewhere IS so designated!

(Guess which letter I got wrong...)

## NOTICED !

If students notice that there are no terminals available in 3018, 3067, 3065, or 4053, would they please notify the consultant or the operators. We have some monitoring software but we really don't know the extent of the terminal usage this term. - Rick Beach

## STATISTICS CANADA SESSION

Statistics Canada (Federal Government) will be holding a briefing session on Thursday September 25 at 3:00 p.m. in M&C 5158 for all graduating students who are interested in pursuing a career with Statistics Canada. This session is for 4th year students only and is not to be confused with the Federal Government's presentation in the Math Career Day.

A briefing session goes into quite a bit of detail on the admission requirements to work for the government and when they will be holding interviews to hire the 1975/76 graduates, etc.

## HISTORICAL CARDS

GCOS Batch control cards contain a "\$" in column 1, a card-type identifier in columns 8 to 15, and an operand field beginning in column 16.

Debug Terminal \$JOB cards contain a "\$" in column 1, a processor identifier in columns 8 to 15, and an operand field beginning in column 16.

There is a reason for the similarity. Both types of cards were modelled after the the cards used by the IBM Operating System, IBSYS, for the IBM 7000 series of computers.

All right, that explains the \$JOB cards, but why should GCOS cards look like IBM ones?

It seems that the IBM 7000 series was so lucrative that both General Electric (later bought out by Honeywell) and UNIVAC decided to manufacture machines that would emulate the 7000 as close as possible, so as to minimize conversion costs for their customers.

As a matter of fact, the UNIVAC designers found bugs in the IBM floating-point hardware.

So the UNIVAC 1107 floating-point hardware was designed with a switch which, when turned on, caused the same wrong answers as the IBM machine!

# FED *JJ Long* REPorts

In this article I will give you a rundown of what the Feds have been doing this month. As usual the Campus Centre Pub has been running six nights a week, with Food Services pubs on Fridays and Saturdays. Also we have had two concerts, a educational speaker, and two forums (housing and election), with two more concerts scheduled for next week. Much educational work has been done concerning the provincial election and I hope you study the election and vote vote for the party which will help you best.

Once again the Federation council will try to meet on this Sunday at 7:30 p. m. (1930 hrs) at Ira Needles Hall Room 3005. It will try to regain the quorum which it lost Thursday September at 10:30 when it was discussing the abortion issue. Council still has a lot of work to do concerning bills that have been on the agenda since Executive meetings in May. Finally, you may know that Math did not elect a co-on undergrad rep for the summer term. If you are, or you know someone who is, a co-on student on a work term and you or that person happens to be around the university, Kitchener-Waterloo or nearby for this term, contact me if you would like to do your faculty a service as a Federation Rep. I can be reached at 421 Barrie Place Apt. 5, (384-3968) or at the Fed or Math Society offices.

J. J. Long

The ruler give away is going great. These 7 inches are now available to anyone.

Designs are needed for the new T-shirts to be ordered. Please bring your ideas, drawings, comments and opinions to the Mathsoc office.

## Mathletics

This years edition of math's flag football team looks more devastating than ever. Quite a few players have returned from last years squad headed by fourth year guard, Garry Dryden. The team is entered in the b division of the league and with the new offensive system put in this year looks like they are going all the way to the championship.

Everyone in math is still eligible to go out for the team. Practice times are on the mathletics board right across from the third floor lounges.

## FASSCINATING ?

A non credit course is being offered by Mathsoc on HOW TO RUN THE MATHSOC OFFICE. C & C students would be great for this since it involves optimizing the time of the few people available for its operation. Just come to the office, sit down and look as if you know something. Before you know it you will. It is fun and soon you will be one of the CAN I HELP YOU gang. See you there.

Creative Arts Board presents: the Concert Choir every Tues. 7-9pm, the fall work being Song of Joy (Beethoven #9); the Chamber Choir every Thurs. 7-9pm; the Concert Band every Wed. 5:30pm, rental of instruments available; the Little Symphony every Sun., call Alfred Kunz, ext. for details; noon hour concerts for anyone or group who wishes to perform, all the facilities of the theatres can be made available by contacting Gary Prudence, Chair-person of the board, ext. 3457.

It is now 1237hrs on wednesday due to our bouncy bun. This the 82nd issue of mathNEWS. This here is the part where I tell you that mathNEWS is the only weekly paper on campus put out by volunteers. We toss some messy master pages to Graphic Services sometime on Wednesday(if we're lucky)and they toss back 1200 issues of 8 pages on Friday. Since we occasionally bite the hand that feeds us(mathSoc) so all material herein is the sole responsibility of the staff. Which is why some of our staff have aliases.

FLASH-----First Slowpitch Game is 1130hrs on Saturday 20th at Columbia Field. SHOW UP or X will do you in.

.....WE were INUNDATED with bodies which was OK except that the number of typists vastly out numbered the number of writers.....despite that the majority of our articles were typed in and corrected by 0030hrs.....that was when the 'bun started us on the road to despair.....at the current time hardware errors separate us and 7 articles.....only 10 minutes of output are needed but we are waiting.....waiting.....waiting.....sleeping.....yawn.....

We would like to thank Mark Brader, Gregg Andrews and J. Karam(even if it was late) for the articles they tossed our way. To Jane Gentleman for the material which resulted in our calculator article thanks. To K.D.Fryer and Lynn Scott the correct spelling is mathNEWS.

As for our staff we set a new high of 25 plus a few extra bodies which wandered through from time to time. We had 4dozen hot dogs disappear during the evening.....we were:  
KATHY-X in the hotdog gridword department; RON HIFNER who caffinated us; PAUL LEAR found that mathnoos wouldn't talk with him; INGRID SPLETTSTOESSER and/or KNAUS; Some first time rookies were BOB SANDIFORD, DIANNE MITCHELL, BILL FLOWERS, TOM KEITH, KEITH CAMPBELL; Silenius(was the kid ever a milkshake?); making rare annual appearances were LLOYD A. GOULDING in the label making department and SYLVIA W. ENG in our pasting department; coffee taster MPDILLON (12 cubed); JIM(who lit the place up)MANTLE; DON HALL who left for some early sleep and showed up again at 11am; KATHLEEN TURNER who decided writting an article was easier than QED; PETER RAYNHAM who couldn't find the hacks when they submerged; the hunter RANDALL flieS McDUGALL; JJLONG chief mattress tester; Dave GILLET who socked and soked and soked and lost; GARY PRUDENCE who thought that the Thesaurus had a great plot; JODY TRIVERS longest lasting rookie; STEVE RISTO a well roffed man; RANDY MORRISON a seasoned veteren of two issues; and lastly DENNIS MULLIN who had the delightful joys of being acting editor-by-default.