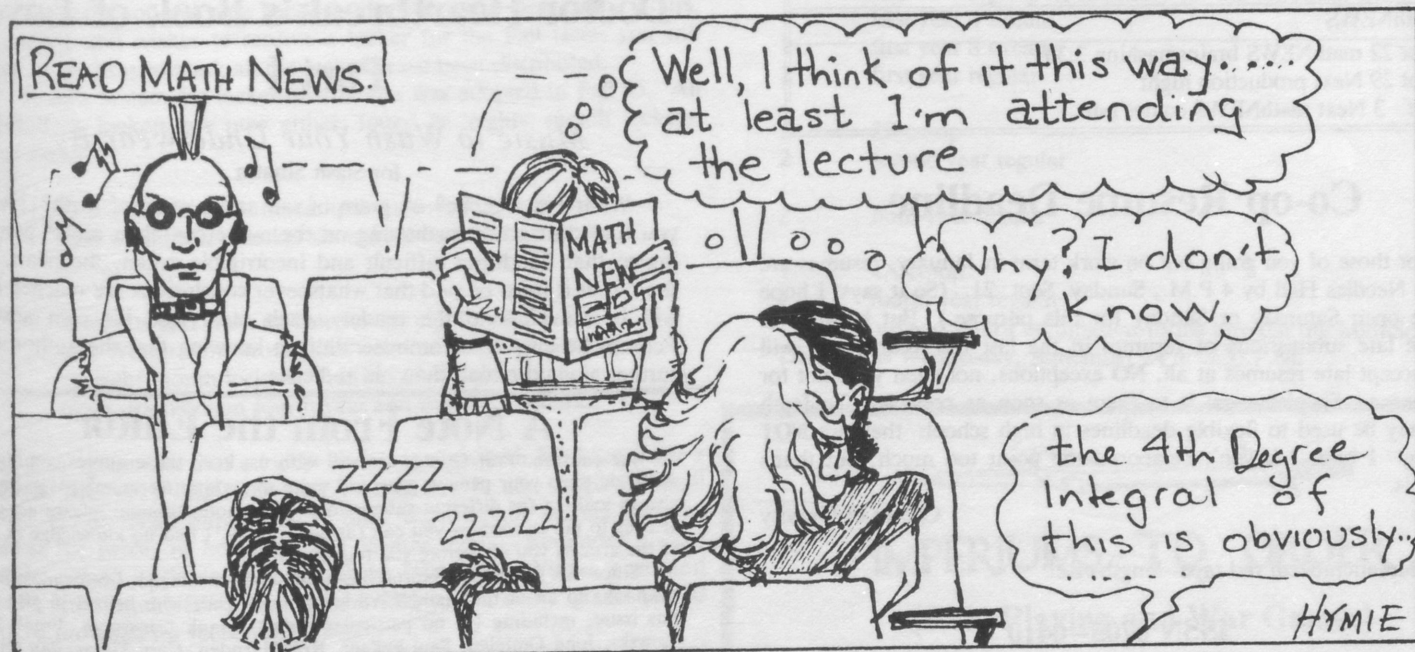


math NEWS

Volume 42 Number 1

Friday, September 19, 1986

Instead of Friday Morning Lectures You Could...



MATH NEWS THE VIABLE ALTERNATIVE TO FRIDAY MORNING LECTURES... (for those too conscientious to take advantage of options 1 or 2)

Look Ahead

Math Events
Sept 19 Course adding/changing deadline
Oct 3 Course drop deadline
Co-Oops Only
Sept 22 Resumes Due 4:30
Sept 26 Want Ads Available
Sept 29 Job Applications Due
Oct 1 Late Jobs Posted
Fed Flicks \$1 Feds, \$3 others
Sept 19-21 To Live And Die In L.A.
Sept 26-28 Back To The Future
Oct 3-5 White Nights
Cinema Gratis 9:30 in the CC—it's free!
Sept 24 Excalibur (Short : The Sound Collector)
Oct 1 12 Angry Men (Short : The Hangman)
Oct 8 Time Bandits (Short : Jetee)
LW Arts Centre
Call 885-4280 for more info and tickets
Sept 19 Wild Canada, Coast To Coast
Sept 20 The Frantics (Live Comedy) Humanities Theatre
Sept 20 Anton Kuerti (Chamber Music) Theatre of the Arts
Sept 21 Magic Show
Sept 23,24 Beethoven: His Idols (K-W Symphony)
Sept 25-27 Cake-Walk
Sept 29 Lisztomania (Film)
Sept 30 Jazz Canada
Oct 3 The Royal Canadian Air Farce
Oct 9-11 Macbeth
Other Events
Sept 22 AM Club seminar: Fun With Fractals
Sept 24 Fed Hall Skinny Puppy w/ Severed Heads
Sept 30 Auditions for "The Mousetrap" CC 110 7:00 PM
mathNEWS
Sept 22 mathNEWS brainsmashing 3:30
Sept 29 Next production night
Oct 3 Next mathNEWS comes out

Co-op Resume Deadline

For those of you going out on work term in January, resumes are due at Needles Hall by 4 P.M., Sunday, Sept. 21. (So it says; I hope they're open Saturday or Sunday for this purpose.) But because of chronic late submissions of resumes in the last few years, they will NOT accept late resumes at all, NO exceptions, not even you, not for any reason. So please get it to them as soon as possible. To frosh who may be used to flexible deadlines in high school: they are NOT kidding! I hope I haven't belabored the point too much, but that's how it is.

Center of Gravity

P.S.: Bureaucrats cut red tape—lengthwise!

ISSN 0705-0410

mathNEWS is normally a bi-weekly publication funded by, but otherwise independent of, the Mathematics Society at the University of Waterloo. Content is the responsibility of the mathNEWS editor; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or mathNEWS. Send your correspondence to: mathNEWS, MC 3036, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1 or to userid mathnews@watdesu on USENET.

Editor: Paul D. Obeda

Prezz Sezz

Well, another summer ends, another school term begins. I'd just like to introduce myself. I'm your MathSoc President. For your information, every student in math is a member of the Math Society upon payment of his or her fees. Along with the VP, treasurer, and class reps (all elected positions), and various appointed positions such as Social Director, we form the the MathSoc student council. Our office is located in MC3038. Feel free to drop in, if you've got a problem we will be sure to help. Or, come to the Bombshelter Friday afternoons.

Just a preview of our social calendar: Today is our road trip to see the Blue Jays in T.O., there will be a Car Rally and a BB/BS Frosh reunion at the end of Sept; Oktoberfest tickets will be available for Oct. 16 & 17 for Bingeman Park (a chance to party with the older generation & watch them make fools out of themselves), proceeds going to Unicef, and of course, the infamous Wine + Cheese. We also will be having a couple of pubs at Federation Hall with some decent bands for a change.

Remember, you can't possibly study all the time and keep your sanity, so go out & party.

Newsflash: The C+D lounge will soon be transformed into a modern "dining venue". Don't worry; you will still be able to study and rap, but now in luxury.

You may have noticed that the C+D prices have gone up, but if you look around, they are still the cheapest on campus. The reason for the increase was that a loss was being accrued—what do you expect if it costs 24 cents for a cup of coffee while you pay only 25 cents. The C+D is still a non-profit organisation but like any other non-profit company, there are operating costs which are forever increasing.

To all those graduating, the Grad committee will soon be formed. We need help with the MGB, class gift, yearbook (bring in your pictures!!), fund-raising. Let's see everyone do his/her part.

Signin' off. Welcome back to school, everyone. Good luck in your classes.

Wilma AKA Fred

Doctor Heartbreak's Book of Love

Part I

Music to Wash Your Underwear By
for Slash Sinatra

What's in a cliché? A grain of salt and a grain of truth? Herein you find the author meditating on the numerous *bon mots* pertaining to that fiendishly difficult and incorrigible organ, the heart. At the outset it must be said that whatsoever conclusions are reached here will be valueless to the reader: each must find his own answer. Perhaps he may take commiseration in knowing that the author is no further along the road than his audience.

A Note From the Editor

As you see, Prof Quotes are still with us; keep those quotes coming in! Also, do keep your pens in gear and write something for mathNEWS; we are always looking for different submissions. One note, though: please get your articles to me as soon as you can (at noon today, I had no knowledge of half of the articles you see before you this morning).

Since this supposed-editorial has become my masthead, I offer most hearty thanks to all of the mathNEWS staff and friends who helped to give you this issue, including (in no particular order): Frank Grossman, Frank Letniowski, John Omielan, Paul Fellner, Rob Harnden, Cary Timar, dan schnabel, Dan Kermode, Camille Goudeseune, W.Jim Jordan, Fred Walter, Ken Shirriff, Andrew Tron, Rob Muir, Bonita Gionet, Bruce Sutherland, and Tom Ivey. Also, thanks are of course due to those whom I have forgotten—it was not intentional, please accept my apologies.

Returning to an editorial-type paragraph, it is of some interest to note that this is the three-hundredth issue of mathNEWS ever produced, plus or minus three percent.

This is now the last article to go in this issue, all others being already taped in place. I think I've filled my space, so goodnight. Paul D. Obeda

News from Blue Skies

I'm going to start this column by announcing a *party!*

Yes, that's right. This weekend, a bunch of UW students are going to get together and head to the beach for fun and excitement and partyings.

Actually, we are the UW Skydiving Club, a group of maniacs who actually *enjoy* falling down. Our weekend is going to start Saturday morning, when we head to Grand Bend (a tourist resort with one of Ontario's nicest beaches). We will stop three miles short of the beach, but anybody who prefers sand and waves to open sky is welcome to continue to the tanning and swimming paradise.

Most of the day, both Saturday and Sunday, will be spent under colourful parachutes, gently floating toward the SWOOP (South-West Ontario Organisation of Parachutists) drop zone, where friendly faces watch our every mistake. Those who don't want to pay for airplane rides which they cancel out of in the air will not be forced to do so.

There will be **NO** drinking during the day, but once the plane is tied down, we'll have hamburgers and pop, at Club expense, and other refreshments, if you bring them.

Over the night, we'll be camping out in tents, or sleeping in the SWOOP club house. (If you prefer to come back in the evening, rather than sleeping there, we won't stop you, if you're sober.) Anybody who has tents or sleeping bags ought to bring them.

Everyone is welcome, even non-jumpers. If you have a *car*, we will be especially happy to see you. Please phone Julie Munday at 888-7098 if you'd like to join us.

Cary Timar
Secretary

Locker News

Welcome--or welcome back--to this wonderful University of ours. If anyone still wishes to receive a locker for the Fall term, you will have to be disappointed; all the lockers have been distributed.

A new system for locker distribution was adopted in Fall 85. All third floor lockers are now either 'four-' or 'eight-' month lockers. This means:

1. Students and clubs on campus for a four month term who would like a locker should receive a four-month locker;
2. Students and clubs on campus for eight months, Fall and Winter, who would like a locker should receive an eight-month locker. This includes eight-stream frosh, four-stream fourth year and regular students.

The agreement that a locker recipient signs with MathSoc is for a **FOUR MONTH PERIOD ONLY**--and this is not stated in small print, either. The implication is this: eight-month lockers must be signed for twice, in both Fall and Winter terms. Reminder notices will be posted in the locker areas at the start of the Winter term (and in the final mathNEWS issue of the fall) and a short 'grace' period will be provided for reclaiming a locker.

Unclaimed lockers would then be made available and 'eviction' notices posted. Lock-cutting should take place that weekend and any found articles may be picked up in MC 3038.

By the way, lock-cutting has already taken place this term. If this has caused any inconvenience, or if any locks remain to be cut, please come to MathSoc to discuss your problem. Also, if you suspect that your locker contents are in MathSoc, you should collect them before we send them to Security. Thanks.

Class of '87 Yearbook!

Do you believe it? There *is* a light at the end of the tunnel (last official count, 217 days to go)! For the first time there will be a yearbook for the graduating class, and we need your help (as well as your pictures and ideas).

There will be a meeting next week--time and place will be advertised. Yearbooks will go on sale at the beginning of October.

The major content of this book will be grad photos with the first sittings in November. There will not be a sitting fee, so everybody should get their picture taken. Start thinking about your write-up too!

Meanwhile we need pictures! Please bring candid shots of yourself and classmates (good quality colour or black and white) to MathSoc. We will make copies of the negatives if necessary. This is the best way to make sure you get in the yearbook!

Barb

Math Grad Summer Raffle

Congratulations to the winners of the Math Grad Summer Raffle held on July 23, 1986. The first prize (microwave) was won by Jan Gray. Second prizes (A&A gift certificates) went to: Lina Fomer, Georgina Gregory, Kenneth Hartviksen, Isabelle Kmita, Joe Morrison, Walter Plosinjack, Jeff Secker, and Skip Shelton.

Many thanks to everyone who supported this event, and in particular, the selling efforts of the fourth-year students were greatly appreciated.

MGB Committee

MathSoc Class Reps

MathSoc is accepting nominations for the following seats:

- | | |
|---|---------------------|
| 1 | first year 4 stream |
| 2 | first year 8 stream |
| 2 | first year regular |
| 2 | 2B co-op |
| 2 | second year regular |
| 2 | third year regular |
| 1 | 4A co-op |
| 2 | fourth year regular |

Pick up and return nomination forms through the MathSoc office. Deadline is Wednesday, September 24 @ 3:30 P.M.



IMPERIUMS TO ORDER

(Role-Playing and War Games)

103 QUEEN ST. S. KITCHENER ONTARIO, N2G-1W1
(519) 744-3831

10% Off With This Ad

Valid Until October 2, 1986

Prof Quotes

The only reason not to be reading mathNEWS on a Friday morning is so that you can be listening for prof quotes. mathNEWS will continue to accept them as long as profs utter them. If you catch your favourite prof saying something others should hear, write it legibly on a piece of toilet tissue and drop it in our black box (outside the third floor lounges). To get things started we have included a few of our favourites from over the summer.

"[...] and I wish for this mess to be 0, and of course my wish comes true."

Zorzitto, PMATH 352

"Did the stuff I was teaching here leave you completely clueless?"

J. Wainwright, MATH 140B

"I'm going to close the door because people keep looking in the class and laughing at me."

F. Goodman, MATH 230A

"It's helpful in this course to be awake, but it's not always required."

G. Wilmut, ACT SCI 221

"I think it is time to start studying what the other sections are studying."

Keith Rowe, MATH 234B

"Mathematics and marriage make a strange combination. My wife thinks that math makes people grouchy."

Dr. Wainwright, MATH 140B

"It's not the length of time you spend on a problem, it's the amount of time that counts."

Luis Goddyn, C&O 380

"I didn't check my overheads, so today's lecture will be in Spanish."

Prof. Pedro Celis, CS 438

"Often a survival time is a waiting time to death."

C Genest, STAT 231

"A lumberjack's method of birth control is the natural logarithm."

I. McGee, MATH 130B

"This book has more Theorem 1's than any algebra book I've ever seen."

R. Read, MATH 134B

"Today we're going to do an experiment with this deck of cards. I'll need two volunteers.... Ok, John and Nick. Now notice that I've taken out both jokers...."

M. Lesperance, STAT 231

"If you want to do math successfully, you've got to sleep."

J. Wainwright, MATH 140B

"If you try to run this code the computer will barf on your shoes."

K. Jackson, CS 240 Tutor

"Some mathematicians have orgasms when they see this."

I. McGee, MATH 130B

"The sweat is running into my mouth and getting in the way. I just thought you'd like to know my troubles."

R. Snyder, PHYS 253

"After the pleasures of the flesh have subsided to middle age, the cancellation of terms gives the greatest amount of satisfaction to the soul."

C. Rodgers, MATH 130A

"If you're a pure mathematician you'll probably like that, if you're an applied mathematician you'll probably puke."

R. Staal, MATH 130A

"A random variable is not random, nor is it variable."

Prof. I.F. Blake, EE 411

Things To Do When the System is Down

- Throw pencils at the ceiling.
- Take care of the 'stack overflow' condition on your desk.
- Practice Prana-Bindu breathing exercises.
- Draw cartoons lampooning the down system on the nearest chalkboard.
- Think up a passable topic for your work report.
- Pass up unthinkable topics for your work report.
- Go back to pencil, paper and calculator.
- Curse yourself for not moving the files to another system.
- Wonder whether your files are still intact.
- (Extremely desperate) Work on your work report.
- Read the Globe & Mail (especially in government offices).
- Phone Systems Support every five minutes.
- Throw out the 800 kilos of obsolete manuals on your desk.
- Photocopy the rest (kills 10 seconds).
- Put terminal in local mode and keep working.
- Shoot the breeze with other people whose host is down.
- Start your own handicrafts industry.
- Count your blessings—at least you're not in a CS 140 lecture.
- Turn down the brightness to see how well your logon screen is burnt into the phosphor.
- Find alternates for 'Host Unavailable', e.g. unattainable, undetectable, undebuggable, etc.
- Hold a paper airplane contest—old printouts and manual pages are excellent raw material.
- Break into the computer used by the company across the street, only to find that it's down, and they're trying to use your machine.
- Call up Eedie & Eddie in New Jersey, (201) 644-2332 collect, for a good time.
- Get another coffee.
- Find out if that magtape really is 2400 feet long.
- Reassemble the on-site laser printer into an operative Dalek.
- Guess what the acronym for your machine's OS really stands for.
- (Really desperate) Document work, or flowchart your program.
- Ask the fellow in the next cubicle if he has Flight Simulator for the PC on his desk.
- Experimentally verify the law of conservation of angular momentum with your swivel chair.
- Play Aerobie in the corridor.
- Bitch to your boss.
- Offer to rewrite the OS for free if they'll let you switch from COBOL to C.
- (last resort) Swear that you'll use structured programming if they bring the system back up.

4 bored minds in STAT 231

Football Warriors Make History

Band Demonstrates International Superiority

The University of Waterloo Warriors football team made history two weeks ago as it crossed into the United States to take on the Wilmington (Ohio) College Fighting Quakers in an exhibition game. The Warriors Band, eager to change the name of its Never-Ending 'Round-The-World Tour Which Has Yet To Leave Canada Except For A Night In Buffalo Which Doesn't Really Count tour, also went to Wilmington, via London (Ontario), Dayton and Xenia.

The football team was sadly disappointed when they arrived. Head Coach Bob McKillop found out that the game was being played under full American rules about 20 minutes before game time. The Band, eager to make the best of dire circumstances, immediately took on a new cheer: "Twelve men! Three downs!" The sparse crowd looked at the Waterloo contingent strangely after that.

On the field, the Band was called to play *O Canada*. The Wilmington High School band didn't have an arrangement of it and so could not play it at the game. That made the score Canada 1, USA 0.

On the same field, a short time later, the Band was summoned to take a lap of the track. The Warriors managed to hang on to the ball long enough to complete a third-down pass to a player in the end zone and score their only points of the game. Unfortunately, by this time, Wilmington had scored a two touchdowns, two two-point conversions and a safety.

As the game continued, the Band played on. Sight-reading some new music, the Band amazed the appreciative crowd with performances of *Malaguena*; *Beautiful Ohio*; *Ontario, Yours to Discover* and the *Wilmington College Fight Song*. The high school band across the field could not keep up the Warriors Band's pace and conceded the speed contest, which used the Wilmington fight song. The Warriors Band scored another victory when the Wilmington band could not respond to the their fight song played in 3/4 time. This left the score Canada 3, USA 0.

The rest of the game proceeded uneventfully. Waterloo would get called for using a play that the Americans had prohibited. Wilmington would get the ball back and sometimes bring it down field for more points. The final score of the game on the field was Wilmington 46, Waterloo 6, making the score by country Canada 3, USA 1.

In the Band's scorebook the Americans were penalised one point for not knowing how to play under Canadian rules, and were given one point for giving the Band free food and drink. They were also given a point for having a bigger band, but the Canadians claimed three points for having a larger band members' travelling distance total. Once again Canada's moral superiority was demonstrated as our representatives walked off with a 6-2 overall victory.

Last Saturday the Warriors Band played in their home bleachers as they took on their hated rival, the Western Band. There was some groanings in the stands as Western's team ran the Warriors' opening kickoff all the way back for a touchdown and Waterloo started their offensive series with two consecutive plays for negative yardage. At least their first punt went forward.

Western didn't get untracked until half time, heading to the dressing room with a slim 45-1 lead (the single came off a long punt this time, not a missed field goal, which had been the backbone of Waterloo's offence as recently as last season). Waterloo came out determined to put some points on the board in the second half, and succeeded. The defence shut out the Mustangs in the third quarter, while the offence and punting unit combined for eight points in the same time period. Western added a converted touchdown and a single in the last quarter to win, 53-9.

The Warriors Band won their battle, too. The Western Band was silenced with another rendition of *Hogan's Heroes Waltz*, and could not come up with a single funny joke. The Warriors Band further endeared themselves to Waterloo fans by following the old man who runs around the track every time Western scores a touchdown with a stretcher for part of his seventh lap around Seagram Stadium. The

winning cheer of the day also went to the Warriors Band when the lines "That's all right, that's OK, our dog's gonna eat your horse some day!" echoed across the stands to Western's ugly purple horse mascot. The horse responded by holding up a sign reading "Stick to basketball." An appreciative Waterloo crowd cheered, which I don't think was the reaction the horse was looking for.

The Band accomplished all of this even though they were a little short-staffed in the trumpet, trombone and violin sections. If you are interested in having some fun, getting into games and other neat events like the Watfund closing free, playing some music and generally being insane, feel free to join the Warriors Band. There are no auditions, and some instruments are available, so you don't necessarily need your own to join them (unless you are an oboe player, in which case you'll be asked to arrange your own music, too). The band practises (sort of) Thursday nights at 6:00 in a classroom across from their office in PAC 1081. Check the board on the door for a schedule of events.

Tomorrow the Warriors take on the Golden Schlocks from Laurier. The Hawks are coming off an emotional 38-31 victory over the *u(t)* Blues, and are rated among the top teams in Canada. However, four of their offensive linemen are injured (at least, that's what I've heard from a frosh Warrior football player). Waterloo, much improved over last year, is not going to get shut out, but they don't expect to win. I'm calling this one Laurier by a nice even twenty points, and hoping that Waterloo will make it less than that.

dwarf

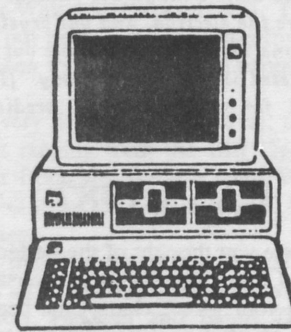
Other OUAA Scores

McMaster 24, York 6

Guelph 42, Windsor 23

Omega XT

IBM COMPATIBLE COMPUTERS



Omega XT \$949

256K ROM, 1 floppy drive, video card, keyboard and composite monitor.

Omega XT-Turbo \$1349

640K ROM, dual speed, 2 floppy drives, hi-res monochrome video, keyboard, parallel port and TTL monitor.

TTX Daisy Wheel Printer \$399

18 cps, Tractor and Friction, Serial and Parallel. Reg \$499.

Diskettes \$8.49

DS/DD, lifetime warranty, PKG of 10. Reg \$11.95.

Commodore 64 Software, 50% to 80% OFF.

Logic Age Data Systems

formerly Home Computer Centre

35 King St. N., Waterloo

888-6130

CSC Flash!

This term the Computer Science Club is off to a great start. Already we have recruited thousands of enthusiastic frosh, and in the near future we expect that many more will be hurrying to get memberships. These lucky few may borrow freely from our extensive library. They may drink CSC tea made with our very own CSC kettle. They can, without feelings of guilt, eat from the extensive doughnaughts provided at CSC meetings. And they may even, despite being frosh, be allowed to vote in Club elections.

Speaking of elections, this term's elections were held last night (Rhursday, for those of you who are reading this). A new executive was elected to bravely lead the club into a term where none of us has been before (at least, I haven't been in Fall 1986 before).

This newly elected executive was probably:

Chairman:	Calum T. Dalek
President:	Kevin Mackay
Vice-President:	Rico Mariani
Treasurer:	Steve Rapaport
Secretary:	Cary Timar

Even if you have not taken out a membership yet, there is still hope! Just drop by our luxuriously appointed office (well, it does have a couch and some chairs) in MC 3037, and ask to join.

But wait! That's not all! Whether you are a member or not, we at the Computer Science Club will be happy (most of the time) to answer any or all of your questions. Questions about computers, programs, operating systems, courses, profs, sex, life, the universe, and more! We can provide answers to all of them (not always correct)!

Cary Timar
Future Secretary

mathNEWS wishes to apologise for any inconvenience the potential inaccuracies in the above article may have caused. The article went to press three days before the election, and our crystal ball repairman warned us that predictions using it might come out wrong because of the snow, but Cary insisted in using it anyway. (I think that voids the warranty - "Good for one year, or 0 predictions, whichever comes first".)

FASS 1987

How many times have you thought of the perfect thing to say, the ideal retort, only to find that the topic of conversation has changed and nobody understands your joke? One of the beauties of writing is that you can condense all that thinking time into neat contiguous conversation, so that what may have taken ages to conceive and hone comes across as smooth, facile, and funny. And one of the beauties of writing for FASS is that you'll be surrounded by other people just like you.

For those of you who have never been on campus during the month of February, FASS is a social group which gets together to have a lot of fun and, coincidentally, produce one of the freshest, most locally-oriented musical comedies you've ever seen.

Right now we are getting ready to start Act Two of FASS 1987, our twenty-fifth show, and we need writers to join us in our quest: writing a show about "Putting on a Show" which is next year's theme. Regular writing sessions will be held every Wednesday and Sunday evening (with the exception of holidays) for the rest of the term. Check out our bulletin boards in the Campus Centre and South Campus Hall for places and times. (We usually meet in MC 5045 at 7:00 but, hey!, we're creative.) It isn't necessary to attend every meeting but the more, the merrier.

So come on out. It's more fun than a poke in the eye with a sharp schtick.

Paul McKone
Chief Scriptwriter, FASS '87

The Applied Math Club

Services

With help from the department, the *Applied Math Club* provides a large number of services, including ...

- social events
- brochures on many Canadian and international graduate programs
- GRE information and sample tests
- Course Notes on many AM courses
- Career information
- Department-Student liason
- more miscellaneous information than you could possibly imagine

and ...

- Informative Seminars

If you wish to join the *Applied Math Club*, offer your services, or just to find out what the club has organized so far this term, pop by the Applied Math Club office (MC 5168) any time and hopefully someone will be there to help you.

Events

Since this article is being written before the *Information Meeting/Coffee 'n Tea Party*, and since it will be read after the events, it seems appropriate to write in the future/past plu-perfect verb tense.

The Information Meeting willan-on proved to be, as the name implies, informative. I would'll like to thank all the professors and graduate students that attended and helped our undergraduate members with their questions. The following Coffee 'n Tea Party also willan-on be a smashing success. Everyone will had eaten well and willan-on had lots of fun. (Except for Bruce who drank too much coffee and made a fool of himself)

Also take note of the *Fun with Fractals* seminar being presented this Monday (Sept. 22) at 3:30 in MC 6091A. This talk should be entertaining and informative to anyone from first year students to professors.

Alison Burnham
AM Club president



COPYRIGHT © 1983, BEAGLE BROS INC.
(BEAGLE BROS PUBLISHES APPLE II SOFTWARE)

THE CONTINUOUS ADVENTURES OF

WATMAN



The Adventures of Watman

When we last left our heroes they had expired due to an overdose of nonsensification at the hands of the Chuckler.

Back at stately Wright Manor in Watham City, the ever-faithful Alfred sensed something was amiss. He descended to the Watcave and saw that the Watcomputer still had its cores lying on the floor.

"I do wish Duck would learn to clean up after his core dumps. Oh, well. Watman will teach him... Now, where was that book?"

Alfred searched a bit and found what he was looking for. He picked up the phone and dialed a number.

"UW Registrar's Office and Department of Official Existence, may I help you?"

"Yes. This is Alfred O. Fettucini calling. I'd like to renew a superhero for another four months."

"Name?"

"There are two, actually. Watman and Duck."

"Well, according to our records, they're long overdue. You'll have to pay a late registration fee and pick up superhero validation stickers before they can return."

"Hmmm. How late are you open until?"

"Well, we're out to lunch most of the time, but if you catch us sometime between 8:30 and 4:30 someone might be in..."

"Right. I'll be right over."

Alfred sped over to Needless Hall on the University of Watham City campus. He looked at his watch.

"It's 3:15. They should be back from lunch and starting a coffee break in two minutes."

He pulled into Lot D, climbed one flight of stairs, stumbled up another flight of stairs, realised he had to go to the Cashier's Office, fell down the flight of stairs and crawled, dazed, into the Cashier's Office.

"Here. Two late fees and two superhero registration fees," he wheezed.

"Will that be cash or certified cheque?"

"American Express?"

"You really should use Visa instead. It's all you really need."

"No. I can't justify the 15-cent transaction fee."

"We don't take American Express. You could have left home without it today."

Alfred, getting a little frustrated by this time, had all but the amount of the cheque filled in. He stopped, looked at the cashier, reached into his pocket and pulled out a long three-part form.

"Here. I'm assigning funds from OSAP to pay for it."

"I see. The Overdue Superhero Activation Program. OK, now to verify this..."

"And B.O., too."

"A Bureaucratic Override card. Fine. Here you go."

The cashier handed over all of the requisite materials for the renewal of our superheroes. Alfred took them and strolled out to his car. He drove back to the Watcave, found two cards and placed the validation stickers on them. Suddenly...

"Wholly python, Watman! We're not dead yet!"

"Apparently not, Duck. I knew Alfred would come through."

"Wrong again, Dynamic Dimwits! I'm not Alfred!" the one formerly known as Alfred laughed. "I'm the Mad Statter!"

Oh, no! This does look like an unfavourable outcome. No sooner are our heroes recreated than they are in trouble. How did the Mad Statter make himself look like Alfred? What happened to the *real* Alfred? And how will the Mad Statter take advantage of his new acquisitions? Stay tuned next issue, same Wat-time, same Wat-channel!

Na-na-na-na na-na-na-na, na-na-na-na na-na-na-na...WATMAN!
The Chuckler

KW JAZZ-FEST 86

When I first read that there was going to be a jazz festival right here in Kitchener-Waterloo (Sept. 11-13), I admit that I chuckled thinking that way out here, a million miles from 'cool', there could be no such thing. I then took a look at the bands that the organisers had lined up.

For this, the very first KW jazz festival, they had managed to get a variety of talent ranging from the **Bill Grove Trio** featuring the manic saxophonist from the Toronto band **Whitenoise** to the solid groove of **Matt 'Guitar' Murphy** known best as the guitarist for **The Blues Brothers**.

On Saturday, the third day of the festival, for a mere ten dollars, I saw seven bands including **Mixty Motions**, a local band which played tunes by **Stevie Ray Vaughan** and **Benny Goodman** among others. Powerful improvisational vocals were provided by **Holly Cole** who sang both in her own trio and with a band led by keyboard player **Aaron Davis**. In addition, playing the most angular jazz of the evening, were **Thin Men**, a band definitely worth seeing if you enjoy creative dissonance.

Unfortunately, all of these great bands were playing to a largely empty hall. Perhaps it was the distance to Bingeman Park which deterred most music lovers or maybe we just don't have any jazz fans here at UW. Even the ever popular **Manteca**, who closed the fest with a really funky, energetic set, were not sufficient to fill the place.

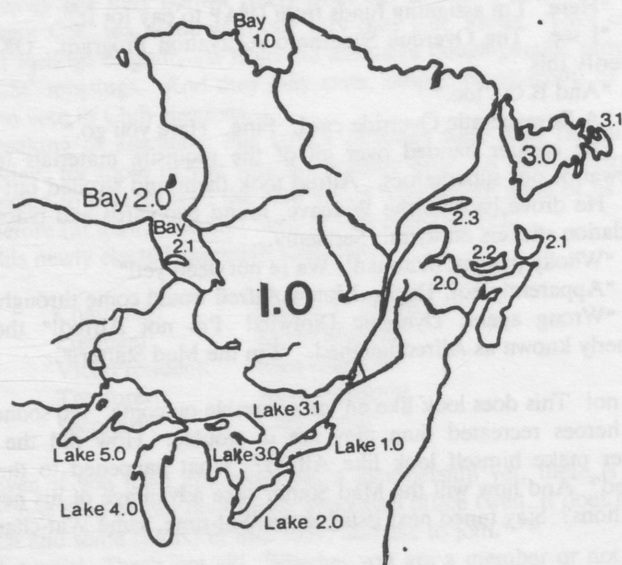
In view of the fact that the organisation did a great job of keeping things rolling and making sure everybody had a good time, it would be terrible if **KW JAZZ-FEST 87** had to cut back and do an inferior job because of lack of support.

This was a jazz festival with something for everyone, so even if you think that you don't like jazz, when the Kitchener-Waterloo Second Annual Jazz-Fest 87 happens, give up ten bucks and a few hours of your time. Go equipped with ears and an open mind and the jazz will do the rest.

DK

What if...

The Founders Of The New World Were Mathies?



The first mathies were Applied mathies who came to the New World aboard three vessels - The Sine, The Cosine, and The Tangent. The crew of The Tangent met with misfortune as their ship only touched the New World at a single point and sailed away, never to be seen or heard from again. The other ships did not go the way of The Tangent, taking a more normal path, circling much of the New World.

The first settlements were established soon after the initial exploration of the New World. These early settlers were the hardy C&O majors. They cut down many trees and made conditions optimal for future settlements.

The Applied Mathematicians meanwhile continued the process of exploration, establishing what is now called the Square Route.

As the European governments learned of the riches of the New World they sent many accountants, both chartered and unchartered. Following the shores of uncharted waters the chartered accountants carted cartons of barter.

The end of the eighteenth century saw the rapid extermination of vast numbers of the native population of the New World, creating an influx of Actuarial Scientists and the need for expanding settlements.

And, as time passed, settlements drove deeper along the Square Route, colonies were expanded, cities were built, differential equations were solved, wars (both civil and uncivil) were fought, computers were invented (thus employing the many Computer Scientists who had done nothing for centuries) and an engineer became the president of the best university for mathematics in the New World.

Yes, our half of the world owes much to its mathematical history, and especially to those brave Applied Mathematicians. But little credit should be given to the Pure Mathies who have for the most part stayed in Europe and never concerned themselves with the New World beyond the assumption of its existence.

dan schnabel

Integer of the Week

570

Elsewhen

mathNEWS ten years ago

CSC PACKS THEM IN—The Computer Science Club held its first meeting of the term Wednesday night. Over 100 people were in attendance to find out about the CSC and to see the microcomputer system we brought in for a demonstration. The microcomputer was an IMSAI 8080 belonging to one of the CSC members. There was at least one other person in attendance who owns a micro.

FREE LUNCH—Last Friday, Mathsoc held a free buffet lunch for first year students after the dean's address. Originally this was scheduled for noon, with a nominal charge for non-frosh. However when about 400 people queued up at 11:30, it was decided to start early and let everyone eat free.

NON-PROFIT, EH?—The roving Action Burloaf checked out the new prices at Coffee and Donuts and was not impressed. You know C&D, the service that was set up as a non-profit outlet for low-priced donuts and coffee... Last year, C&D's non-profit paid for a new stereo for MathSoc as well as other things...

RANDOM OBSERVATIONS—Schmidt's of Philadelphia has come out with a four-part series of Bicentennial Beer Cans, and I'm sure you'll all be interested in collecting all of them. Of course, the cans are filled with the most hideous yellow foaming liquid known to man... The integer of the week was -57... The summer was especially poor for new music. AM and FM both participated in the Paul McCartney, Elton John and Peter Frampton Overkill and most bands either did nothing or contributed little in the way of interesting material... This week's *Most-Beautiful-Girl-On-Campus Award* goes to the blonde in Village I with the wire-rimmed glasses who wears beautiful sweaters, beautifully, and who walks with a distinct shake. Keep up the good work! We're watching.

Excerpted from mathNEWS, Volume 12, Numbers 0 and 1, September 17 and 24, 1976.

GridWord Know-How

This article explains the how-to's of doing the GridWords that I create for mathNEWS. The frosh will never have seen a GridWord before, and the coops will likely never have seen the GridWords in this form.

One thing that should catch your eye is the symmetry of the grid — notice that it is the same grid upside-down (ie. just like the Grid-Word logo). You will also notice the two sets of clues — one is for the cryptic puzzle and the other is for the conventional puzzle. Both solutions fit into the same grid but the two solutions are different.

For the conventional puzzle the clues are the dictionary definition or related word type that we are all familiar with. What more can I say?

The cryptic puzzle clues are a whole different ballgame. The clues themselves give two definitions for the solution. This may sound easy (WOW *two* clues for each word!) but the trick is separating the definitions. As well, one part does not give a meaning for the word and is called the *cryptic* part. The mixture of cryptic clues and meanings in one sentence may make the total clue sound silly or nonsensical. Hopefully it will make sense when the clue is deciphered (a crooked mind may be necessary to do this).

The following describes different types of cryptic clues. Note that a clue may be one or more of these types.

- 1) Anagrams — one or more words in the clue are jumbled to give the solution. Key words: scrambled, mixed, to, so, around, about, sorted, scattered, confused, etc.
eg. 'A beat to slow down' = ABATE (from A BEAT)
- 2) Construction — assemble the answer from parts of the clues. Key words: lead, start, follow, after, before, on, etc.
eg. 'It's intended that I lead the insect' = MEANT, from ME +

continued on page 10

Mathematical Puzzles

Magic Squares

A magic square is an $n \times n$ array of numbers in which the sum of each row, column, and corner diagonal add up to the same total. This total is called the square's "Magic Number".

Try completing the following 3x3 and 4x4 magic squares by filling in the missing numbers. (Solutions to appear next issue.)

8	3	4
	7	

15	1	
	9	
		3

14		9
3		13
	15	

	2	19
16		8
5	22	

	3	4	
8	16	15	11
			17
5			2

1	43	40	
	16		25
22			
37	7		46

Magic Squares have intrigued mathematicians and others for thousands of years. The first magic squares date back to ancient China when numbers held a certain mysticism. Magic Squares were introduced in Europe during the fifteenth century. The artist, Albrecht Dürer created an engraving entitled "Melancholia" in which the magic square shown below appears. Notice that the date of the engraving (1514) appears in the middle of the bottom row.

16	3	2	13
5	10	11	8
9	6	7	12
4	15	14	1

Dürer's magic square has more symmetry than a simple magic square in which only the columns, rows, and corner diagonals sum to the magic number. Close inspection of Dürer's magic square reveals many sets of four symmetrically-placed numbers which total 34. For example: 3 2 15 14; 5 3 14 12. What other sets can you find?

To construct odd-order $n \times n$ magic squares (that is, n is odd), there is a simple rule devised by De la Loubère. The method is as follows:

- 1) Place a 1 in the middle column of the top row.
- 2) Place the numbers 2,3,4, ... consecutively in the cells up and to the right of the previous cell.
- 3) When the top row is reached, continue using the bottom row.
- 4) When the right-most column is reached, continue using the left-most column.
- 5) When a cell is reached that already contains a number, continue by dropping down one cell.

Here are two examples:

8	1	6
3	5	7
4	9	2

17	24	1	8	15
23	5	7	14	16
4	6	13	20	22
10	12	19	21	3
11	18	25	2	9

There are other methods for constructing odd-order magic squares, as well as even-order magic squares. Interested readers can refer to *Magic Squares and Cubes* by W.S.Andrews (Dover) and *Mathematical Recreations and Essays* by W.W.Rouse Ball (Macmillan).

the Wizard of Id

Good morning frosh, froshettes and fellow survivors. This column is specifically intended to divert the attention of those hapless souls who are at this very moment enduring the sonorous strains (i.e. endless dronings-on) of their fav' calculus prof. (Note that any third year stats course is a close substitute.) Your mission, should you decide to accept it, is to engage and correctly respond to the questions contained in

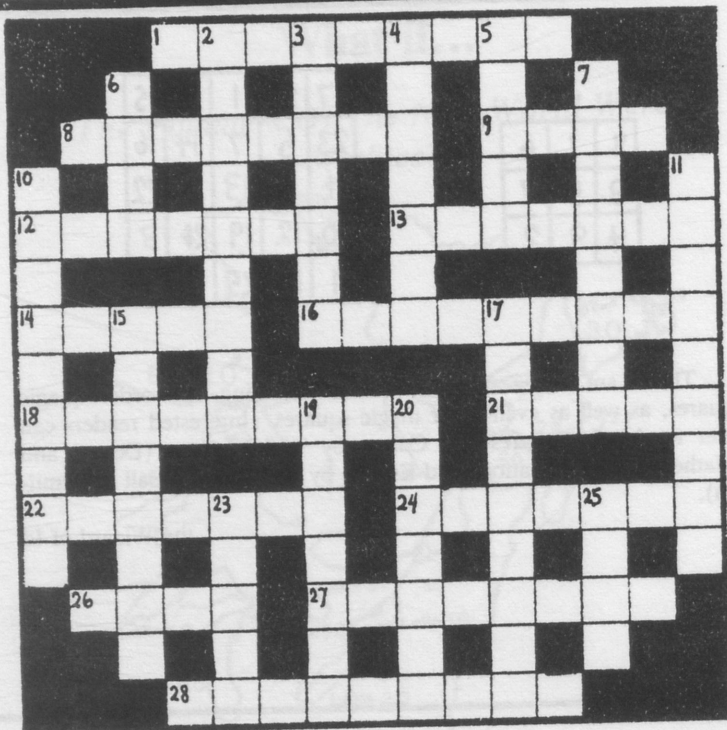
mathNEWSquiz #6

1. Who provided the voice of "Dopey" in Walt Disney's "Snow White and the Seven Dwarfs"?
2. Which Canadian maritime disaster happened on November 10, 1975?
3. By what name is Caspar Gutman better known?
4. Nat King Cole and Stubby Kaye performed the title tune from which western motion picture?
5. How many cars comprise the starting field of the Indianapolis 500 auto race?
6. Who played Buck Rogers in the 1939 movie serial?
7. What are the "Pillars of Hercules"?
8. What was the name of the "Jetson's" pet dog?
9. Who composed the "Golliwog's Cakewalk"?
10. Why is it bad that Chicago Cubs pitcher Billy Hands recorded 14 straight strikeouts?

Quiz solutions may be submitted on or before September 28, 1986 in the flight recorder (i.e. BLACK BOX) on the third floor outside the C+D lounge. A skilled prize-winner will be announced, along with the solutions to mathNEWSquiz #6, plus a brand new mathNEWSquiz, in the next issue of (your friend, in Friday morning classes) mathNEWS.

. Good luck, Jim. This student will self-destruct in eleven weeks ('til final exams).

mathNEWSquizmaster



continued from page 8

ANT

3) Misleading clues – clues that seem to say one thing but are really indication something else.

eg. 'The golfer's are starting to come in here' = TENTH HOLE
 'A sign of balance' = LIBRA

4) Double clues – two meanings of the word are given.

eg. 'An article on French tea' = THE (the French word for tea)

5) Alterations – words should be split up or switched around. Key words: in, around, split, cut, about, turn, back, up, etc.

eg. 'Exist up to this age' = ERA which is ARE raised up.

6) Dropping letters – drop a letter from a word. Key words: headless, tailless, directionless, etc.

eg. 'The head of the host was lost to the wealthy bird' = OSTRICH, ie. HOST lost h + RICH.

7) Hidden – the answer is hidden in the letters of the clue. Key words: give, show, contain, has, etc.

eg. 'The really rich give a word in music' = LYRIC, from realY RICH.

8) Homonyms – the answer to one part of the clue sounds like the required answer. Key words: anything related to hearing or sound.

eg. 'I hear the crew will be mean' = cruel, from crew'll.

9) Other instructions – look for other words that may indicate how to construct the solution.

eg. 'Every other oblong marsh' = BOG from oBIOng.

Below is a list of words that lead to different portions of the solutions:

direction: N.S.E.W; hesitate: ER; soft: P (pianissimo); loud, fail: F; year: A (annum); love: O (tennis); sailor: TAR; German soldier: SS; curve: ESS; many: D (Roman 500); ordinate: Y; current: AC; and many others.

Even after using these instructions, you will likely find that GridWords can be quite discouraging. Reading through the clues may produce no results at first, however, going back through, looking for key words, and fiddling things around in your head will give you most answers. One or two solutions often start the ball rolling (as the saying goes). Another suggestion is to keep your puzzle from one week and get a copy of the next mathNEWS to compare solutions with clues looking for the connections. Remember though, the key to successful GridWording is perseverance!

fletniowski

Comments of the FroshGrid

Welcome y'all to the start of an exciting term with GridWord. This is the first time I've written GridWords on this stream, so you may not be familiar with this format. Note that in fact there are two puzzles with different solutions that fit into the same grid. For instructions on doing the GridWord, consult the how-to article elsewhere in the paper.

The rules are as follows: Choose which puzzle to do, complete the answers in the grid provided, and submit your solution with your name to mathNEWS in order to qualify to win great prizes and have your name immortalized in these very pages. Submit your solutions via the mathNEWS BLACK BOX across from the third floor lounges, by Monday September 29. Winner(s) will be randomly selected and displayed along with the solution in next issue. Also comments on anything to do with GridWord are greatly appreciated.

Now before you get to work on the puzzle, I leave you with a warning – GridWording and driving don't mix. (I think someone's used that before.)

fletniowski

CONVENTIONAL

Across

- 1. CHEESE
- 8. BOARD GAME
- 9. ARRANGE
- 12. REJECTED
- 13. KEEPS YOU GOING
- 14. GREEK LETTER
- 16. NOTRE DAME RESIDENT
- 18. AFRICAN SEGREGATION
- 21. MEASURING DEVICE
- 22. FORTRESS
- 24. MUSICAL
- 26. LEAVE OUT
- 27. APES
- 28. ALIEN

Down

- 2. NON-STOPPING
- 3. WIDTH
- 4. CERTAIN ASIAN CITIZEN
- 5. HAPPEN AFTER
- 6. COOK
- 7. PROLONG
- 10. GESTATION
- 11. FOLLOW IN REVERSE
- 15. INTERVENING PERIOD
- 17. DISGRACE
- 19. OVAL
- 20. INCRIMINATING
- 23. AS BEFORE
- 25. PROFOUND

CRYPTIC

Across

- 1. Started among the thing, I consumed many (9)
- 8. Back an alien with bullets or a companion (8)
- 9. By way of fifty bottles (4)
- 12. These years, note, take a real directionless leader (7)
- 13. A gold street left breath in another country (7)
- 14. Implied I'm in diplomacy (5)
- 16. Enters the service again about a letter of rosters (2-7)
- 18. Out of lively existence, direct knowledge (9)
- 21. A hundred in a thousand is left chaotic (5)
- 22. Cereal is nothing at lunch (7)
- 24. Love poetry starts across the water (7)
- 26. Leap to guilty or not guilty (4)
- 27. The animal has a french fry brother, I hear (8)
- 28. Isn't complete to relax the resistance of confinement (9)

Down

- 2. The United Nations back me to tell nothing right of the top fraction (9)
- 3. A real triform towed vehicle (7)
- 4. The middle of the road has ire (7)
- 5. The First Ladies have a hangover (5)
- 6. Raise a feeling of Armageddon (4)
- 7. Not one gentleman has a newspaper up at the fort (8)
- 10. A portion fowl over Athens (9)
- 11. Taco saw it about the garment (9)
- 15. Certain seats covering it and less seats leading (8)
- 17. The strange numb realm of timber (9)
- 19. Sickly here, French start to be prohibited (7)
- 20. Currently, I ripped up the sexual material (7)
- 23. High spirits among the latest (5)
- 25. Without a southern continent and an eastern province (4)

Who
 Why
 Comment

Campus Convoy '86

Presented by the *Tandy Computer Centre - Kitchener*

A one day sale for Canadian University and College Students

OCTOBER 8, 1986

Featuring Tandy 1000 EX and SX Computers

Tandy 1000 EX - \$949.00

- PC compatible
- 7.16/4.77 MHz clock speed
- almost twice as fast as IBM PC
- 256K memory expandable to 640K
- one 360K disk drive
- one available expansion slot
- two joystick ports
- three voice sound
- headphone jack with volume control
- colour/monochrome adapter
- 640 x 200 video resolution
- MS-DOS 2.11 and BASIC
- personal Deskmate software
- monochrome monitor
- save \$579.95



Tandy 1000 SX - \$1299.00

- PC compatible
- 7.16/4.77 MHz clock speed
- almost twice as fast as IBM PC
- 384K memory expandable to 640K
- two 360K disk drives
- five available expansion slots
- two joystick ports
- three voice sound
- colour/monochrome adapter
- 640 x 200 video resolution
- MS-DOS 3.2 and BASIC
- Deskmate II software
- monochrome monitor
- save \$829.95



ORDER YOURS TODAY!!!

For Further Information Contact:

Tandy/Radio Shack Computer Centre
2848 King Street East
(Across from Journey's End Motel)
Kitchener, Ontario.
N2A 1A5
894-2630

OCTOBER 8, 1986

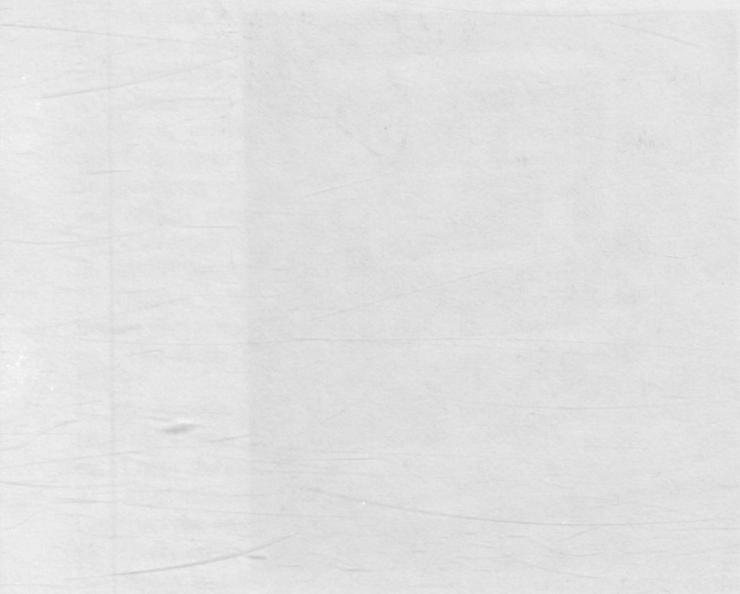
OCTOBER 8, 1986

Campus Computers

Presented by the Faculty Computer Group
University of Toronto

OCTOBER 8, 1984

Featuring Jandy-1000 EX



Jandy-1000 EX - 256K memory
• PC compatible
• 2.1MVA 77 MHz microprocessor
• 256K memory expansion in 64K word increments
• one available expansion slot
• two floppy disks
• three expansion slots
• keyboard jack with volume control (25-50%)
• 800 V 500 kHz resolution
• MS-DOS 2.0 and BASIC
• optional keyboard with numeric keypad
• 1000 V 500 kHz resolution

Jandy-1000 SX - 128K memory
• PC compatible
• 2.1MVA 77 MHz microprocessor
• 128K memory expansion in 64K word increments
• two available expansion slots
• two floppy disks
• three expansion slots
• keyboard jack with volume control (25-50%)
• 800 V 500 kHz resolution
• MS-DOS 2.0 and BASIC
• optional keyboard with numeric keypad
• 1000 V 500 kHz resolution

ORDER YOUR COPY

Faculty Computer Group

University of Toronto

128 St. George Street

Toronto, Ontario

M5S 1A5

Canada

OCTOBER 8, 1984