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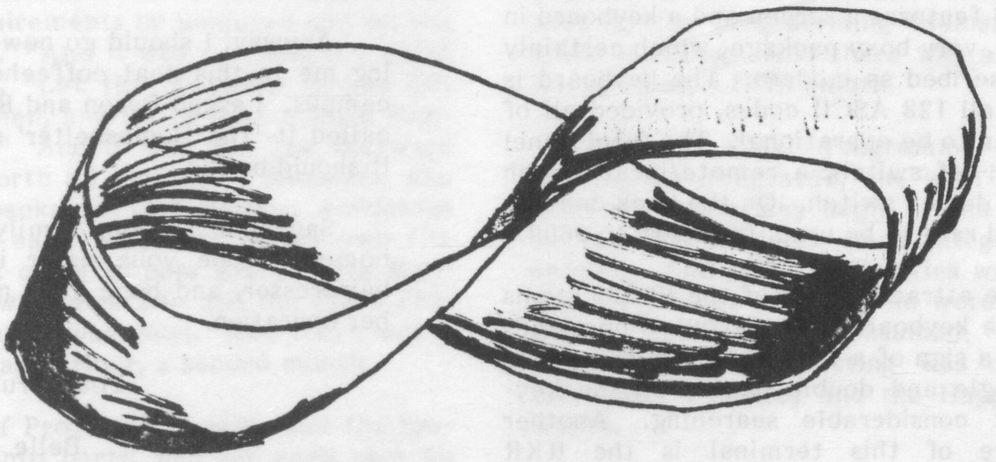
math NEWS

Waterloo Math



Twist Your Mind

Jonathan Koven

Hardware Review:

Volker-Craig 303

This terminal is not exactly the newest model offered by Volker-Craig, which, incidentally, is no longer owned by Nabu. However, the product seems quite popular with students working on their CS 340 assignments, especially once the 'bun room is full.

The terminal has had a long and colourful history at UW, having been associated with such glamorous systems as WIDJET and WITS. Currently it is being used for Gandalf as well as a few remaining WIDJET terminals. The Computer Systems Group uses these terminals as monitors for Commodore 64 mainframe computers.

The VC303 features a screen and a keyboard in one integrated, very boxy package, which certainly can not be described as modern. The keyboard is able generate all 128 ASCII codes, provided all of the keys happen to be operational. The front panel features an on-off switch, a remote/local switch and a full.half duplex switch. On the back one can select the baud rate to be used, from 110 to 9600.

Part of the attractiveness of the VC303 stems from its unique keyboard. The layout is non-standard, and it is a sign of a true hacker to be able to locate the single and double quotes on the keyboard without considerable searching. Another unique feature of this terminal is the RKR (random keystroke repetition). One may hit the 's' key, but the terminal will determine using a pseudo-random number generator whether there should be one, two or no 's's produced.

The 303 features a limited full-screen capability; it allows the user to clear the screen and subsequently type it full of text. Graphics capability is unavailable beyond the presence of prominent 60 Hz scan lines and automatic screen flicker.

The current price for a VC303 in a used condition is approximately $100. This may seem very reasonable, but **mathNEWS** feels that we would have to be paid far more than $100 to use one of these beasties. An IBM 3279 at $10 000+ is, we feel, worth its price more so than this unit.

Tom Watts

Almost Home

Dear Percy,

I thought a lot about the letter you sent me last week. It was snowing lightly as I returned to the Village that afternoon, and I thought about you over and over again. It's not that I don't like you or your chihuahua, it's just that I don't think backpacking in Nepal is for me. Sorry

How is your new job going? Is it interesting being a janitor in a girl's scool? This weekend I met a guy in N3 who once cleaned floors. His name's Renaldo and he's kinda cute. I went out with him on Sunday (we had a picnic in the snow) and ever since he's been calling me up and hanging around my room. He says he'd really like to see me in a leather bikini and collar.

Anyway, I should go now 'cause Renaldo's taking me to this neat coffeehouse in the middle of campus. I asked Byron and Rudy about it and they called it 'The Bombshelter' and rolled their eyes. It should be fun.

Say hello to your family and everybody back home. I hope your sister is doing fine being a hairdresser, and hope your mother is better after her operation.

Yours truly,

Belle

P.S. I'm moving soon to a different address but I'm not sure where, so wait until I write you again before you write me.

RealMath

This is the REAL issue of **mathNEWS**. All other issues before this have been fakes and should be regarded as spurious drivel! Finally the students of the Math faculty have a newspaper intended for REAL Mathies, written and edited (at last!) by REAL people. Never before has such innovation hit Waterloo!

As the first step on the road to recovery, we should abolish all non-real math, mathematics that hides behind wicked theorems and banal propositions. **Gone**, I say, gone with complex inner products, **gone** with Galois fields, and **gone** with Argand diagrams and all those pitiful substitutes for profs who use them.

The REAL **mathNEWS is going to bring REAL math to those who desperately need** it: the students and janitors of the Math building. The REAL **mathNEWS** will be holding its first real organizational meeting at the commissary on Feb. 23rd. Be there or be complex!

Preregistration
mar 3~5

Genesis, part II

And the Chief Programmer sent his Analysts to the Users and said," Let Specifications be written." And there were meetings, and lunches, and telephone calls. And the Specifications were written. And there was a Payday and the Happy Hour, one month.

And the Chief Programmer examined the Specifications and saw that they were too ambitious. And he separated the mandatory features from the optional features; and he called the mandatory features - "Requirements," and he called the optional features - "Deferred," and the users called him names. And the Chief Programmer gave the Specifications to the Analysts and said;"Let the requirements be analyzed and let the Files be designed. "And it was so. And the Chief Programmer said, "Let the Software Houses put forth their Salesmen, and let us have a Data Management System." And it was so. The Software Houses brought forth all manner of Salesmen who presented their packages, and claimed wonderous things for them, each according to his own file structure. And it came to pass that a Data Management System was selected; and the Chief Programmer saw that it was good. And there was a Payday and the Happy Hour, a second month.

And the Chief Programmer said, "Let the System be divided into parts, and let each part be called a 'module.' And let programming teams be formed and let each be assigned to write a module." And it was so. And the Chief Programmer created the programming teams with two levels, a greater and a lesser: and he called the greater the "Senior Programmers," and he called the lesser the "Junior Programmers." And he gave the greater dominion over the lesser. And the Chief Programmer saw it was good. And the Junior Programmers saw it differently. And there was a Payday and the Happy Hour, a third month.

And the Chief Programmer said, "Let the programming be started and let much overtime be consumed, for there is but two months left." And the Programmers, both Senior and Junior, were much afraid, and they strove to please the Chief Programmer. And they flowcharted, and they coded, each in his own fashion. And the Chief Programmer looked upon the work and liked it not. And the Chief Programmer said, "Let there be a Standard:" and there was a Standard. And the Programmers looked upon the Standard and liked it not. And there was a Payday and the Happy Hour, a fourth month.

And the Chief Programmer said, "Let there be Progress Reports , so we can monitor and control;" and there were Progress Reports. And the Chief Programmer looked upon the Progress Reports and saw the Due Date was not to be met. And the Chief Programmer arose, pressed his suit, and shaved his beard, and went unto the Project Manager, and groveled. And the Chief Programmer pointed his finger, and caused Blame to issue forth upon all manner of creatures who sold Hardware and Software. And the Chief Programmer asked for an Extension.

And the Project Manager was exceedingly angry, and cast doubts upon the Chief Programmers ancestry; and uttered a multitude of threats. But it came to pass that an Extension was granted; and the Chief Programmer took the Extension back to the programming teams, and there was much rejoicing. And there was a Payday and the Happy Hour, a fifth month.

And the Chief Programmer said, "Let the Modules be integrated, one with another, so that System Testing may begin." And it was so. Two by two the Modules were integrated, one with another. And great difficulties were experienced, and many hours of overtime were used, and many cups of coffee were consumed. And it came to pass that System Testing was completed. And there was a Payday and the Happy Hour, a sixth month.

Then the Chief Programmer did go to the Project Manager and said unto him, "Behold, I bring good tidings of a great joy which will come to all the Users; for on this day The System is completed." And suddenly there was with them a multitude of Users praising the Chief Programmer and saying, "Glory be to The System in the highest, but can you make this one small change?"

Quote of the Week

"We introduced the 8088 as an 8-bit microprocessor because although the internal architechture is 16-bits the I/O bus interface is that of the 8085. It was not until IBM introduced the IBM PC that we discovered it really was a 16-bit microprocessor. We could tell it because we read it in all the ads in the airline magazines."

David House
Vice President & General Manager
Microcomputer Group
Intel Corporation

Entertainment

by Marcel Kahnt

Upcoming over these next two weeks and into the foreseeable future, there are a few rather good movies at the various theatres in KW. Still showing from back to the Christmas season is Terms of Endearment, with several other movies such as Unfaithfully Yours, Silkwood, Footloose, Blame it on Rio, and The Right Stuff arriving more recently.

Terms of Endearment is simply the second best movie I have ever seen (after **Casablanca**). I actually rank it ahead of **Gandhi** (which I found predictable at a few too many points), and the **Maltese Falcon**.

Another feature to consider is **Unfaithfully Yours**, with Dudley Moore, Armand Assante, and Natassja Kinski, is a remake of a movie with Rex Harrison of some thirty to forty years ago under a different title which slips my mind. It is very subtle and heavy on misunderstanding (but not to the lunacy level of Three's Company), with a great conductor (Dudley Moore) believe his wife is fooling around with a guest violinist (Armand Assante). The conductor plots to slay his wife and lay the guilt on the violinist with perhaps the most elegant plan ever devised, which goes wrong at every step of its actual performance. It is yet another good choice of something to see.

Fed Flicks

Now stand back while the fans of this group cheer, because the weekend of March 2 is **Monty Python's The Meaning of Life**. Complete with not a single woman wearing anything above the waist, five minutes of people throwing up, and a musical about contraception, this movie is disgusting. It should be a sell-out, so get there early.

The weekend of the ninth of March is on complete with a kilt, a chestpiece, a bald woman, and pointed ears (logically). Although the first movie was panned by even the most fanatical fans of this ever popular series, the second movie is a classic battle between good and evil. To which I speak is none other than **Star Trek I and II**. I am willing to sit through the first movie no matter how bad it is to see the second (and I don't consider myself a trekkie) because the second is the third best movie I have ever seen (even better than Star Wars, the Empire Strikes Back, and the Return of the Jedi combined). The second is simply a must see.

Cinema Gratis

Elephant Man is next Wednesday's Cinema Gratis. I must admit to not knowing very much about either it or the following week's feature, **Diva**, which has piqued my interest so that I may (time permitting) come out and see these features. I do know that **Elephant Man** is an example of man's inhumanity to his fellow man, dealing with the true story of a man who suffered from a disease that so disfigured his face that he regularly wore a sack over his head in public.

Other Stuff

Last Friday saw the holding of the MathSoc Wine and SlagFest, which was held to raise money for the Math Grad Ball. I commend the organizers for allowing me to become agreeably drunk there, and I sincerely hope that the scheduled end of term MathSoc Wine and Cheese goes as smoothly. I haven't heard much about the event as yet, but I hope that I will be able to make a full report in the next edition.

In closing, I realize my evaluations are heavily weighted upon my somewhat eccentric tastes, so I openly welcome anyone to tell me that I have dismissed a masterpiece as trash, or that a movie I love is actually a dog. As well, if your favourite group was passed over here, let me know that it exists and that you are interested and I will try to get it added. For instance, I would like to run the **TheatreSports** results, but I don't have the time to attend them, and I have no idea where these results might be kept. If I can be of help in any way, drop me a line in care of **mathNEWS** via mail on WATDCSU, WATDCS (SCMS), or WATBUN, or in the black box on the third floor of the math building.

This Week's Theorem

$$\lim_{(x \to 0)} \frac{\sin x}{n} = 6$$

This is true for any positive real number n. The result follows from cancelling the *n*'s in the numerator and denominator.

ReRiddleQuest

Due to circumstances beyond our control (are there any **in** our control?) the full spate of riddles will not appear this issue. Solutions to last issues riddles were: 1. Mole 2. Butterfly 3. Flower, Boots 4. Tear 5. Creation

Mathsoc Report

Well, it seems that all sorts of people felt that I should have split my last issue's report into two articles — one a report, and one a personal commentary. In the future, I guess I will do so, but in this issue I have no commentary or complaints (or commendations) to make, so there is only the one article.

MathSoc has held two meetings in the past three weeks. The first, held on February 15, was primarily intended so that Ron Balcarras could be ratified as the class representative for the 3N Regular riding. Ron won this position by acclamation in the quiet by-election held in this riding to fill the seat which Ross Morrissey vacated so that he could run for the presidency.

As would be expected, the primary proceedings of this meeting were the ratification of Ron in this position, and his subsequent appointment to the position of Speaker. Once again, Ron replaces Ross in this position. It is hoped that his experience (Ron has been Speaker before) will be useful.

Two other items were discussed at this meeting. In the first, MathSoc decided to allow a tax service to operate out of the **mathNEWS** office, conditional upon the Dean's and the Feds' approval. This service would be provided free of charge to Math students by two fourth year CA's. The other item was the budgeting of $1200 to cover potential losses at this term's Wine and Cheese. This is the amount which Lisa Seabrooke, the organizer, has estimated to be necessary.

The second meeting was on February 21. After a question about perhaps including in the minutes a list of voting members of council who did not attend the meeting, (I prefer just keeping a tally of the totals, as only the long run figures will be useful) the budget was presented. A few figures were questioned, but this was mostly by people who had not read the justifications attached. (The budget should appear somewhere in this issue. For the justifications, go to the MathSoc office.)

MathSoc decided to donate $250 to the Warriors Band, to enable them to go to Halifax, conditional on their going there; however, they will be asked to report afterwards on the trip (ostensibly to make sure the money was used wisely, but more likely for entertainment purposes).

After this, the **mathNEWS** budget was not presented, the only person who understood it not being present (Nice going, Watts, that was my pizza money — Typist). It was decided that MathSoc should purchase a small paper cutter for the office, to go with their other services, and that we should obtain a black changeable directory board to go on the third floor, near the C&D lounge, for announcing important events.

Ross mentioned that Math needs a new Senator, and that interested applicants should speak to him. (A Senator is someone who represents the students (A student Senator is, anyway — Typist (This means he ought to — Asst. Ed. (no way -ed.))) in the University Senate. The position is an elected one, and is unpaid.)

It was decided that a committee should be formed to look into the need for and the feasibility of hiring a secretary for MathSoc. Another decision was to give $50 to Mark Engel to cover the $158 losses of the Applied Math Wine and Cheese. The Department is putting up a further $93.

And that's about all that happened at these two meetings, but Lisa would probably kill me if I neglected to mention (it probably appears elsewhere in this issue, and it certainly appears elsewhere in this article) the MathSoc Wine and Cheese! so I mentioned it again.

Three's Company

Here's a quick quiz to see how well you know some typical groups of three. We'll give you one word, and you can figure the other two. For example, if we gave you 'white', you might come up with 'red, white and blue'. Get the idea? Don't expect us to give you the same position in the trio each time.

1. Larry
2. scissors
3. writing
4. Paul
5. grammar
6. lettuce
7. baker

Once you've figured out those seven, try these. In the following, we've given you one out of *four* items. You must come up with the other three. For example, if we gave you 'fall', you'd probably come up with 'pring, summer, fal, winter'. Answer will be printed next issue.

1. Mark
2. Health
3. diamonds
4. Paul
5. width
6. arithmetic
7. water

McUnix

The following was an anonymous contribution to an electronic bulletin board at Stanford:

Last night I dreamed that the Real World had adopted the Unix Philosophy.

I went to a fast-food place for lunch. When I arrived, I found that the menu had been taken down, and all the employees were standing in a line behind the counter waiting for my orders. Each of them was smaller than I remembered, there were more of them than I'd ever seen before, and they had very strange names on their nametags.

I tried to give my order to the first employee, but he just said something about a syntax error. I tried another employee with no more luck. He just said Eh? no matter what I told him. I had similar experiences with several other employees. (One employee named ed didn't even say Eh?, he just looked at me quizzically.) Disgusted, I sought out the manager (at least it said man on his nametag) and asked him for help. He told me that he didn't know anything about help, and to try somebody else with a strange name for more information.

The fellow with the strange name didn't know anything about help either, but when I told him I just wanted to order he directed me to a girl named oe, who handled order entry. (He also told me about several other employees I couldn't care less about, but at least I got the information I needed.)

I went to oe and when I got to the front of the queue she just smiled at me. I smiled back. She just smiled some more. Eventually I realized that I shouldn't expect a prompt. I asked for a hamburger. She didn't respond, but since she didn't say Eh? I knew I'd done something right. We smiled at each other for a little while longer, then I told her I was finished with my order. She directed me to the cashier, where I paid and received my order.

The hamburger was fine, but it was completely bare... not even a bun. I went back to oe to complain, but she just said Eh? a lot. I went to the manager and asked him about oe. The manager explained to me that oe had thousands of options, but if I wanted any of them I'd have to know in advance what they were and exactly how to ask for them. He also told me about vi, who would write down my order and let me correct it before I was done, and how to hand the written order to oe. vi had a nasty habit of writing down my corrections unless I told her that I was about to make a correction, but it was still easier than dealing directly with oe.

By this time I was really hungry, but I didn't have enough money to order again, so I figured out how to redirect somebody else's order to my plate. Security was pretty lax at that place.

As I was walking out the door, I was snagged in a giant Net. I screamed and woke up.

Declassifieds

Lost - another universe in MC3032. Contains many pinwheel galaxies and megaclusters. Owner's name spelled out in quasars along bottom face.

Janet knows but won't tell - don't you tell either! - K.R.

Myrna's Flesh Emporium and Body Works is now interviewing young muscular males for co-op PM and CA jobs. Apply early - first come, first served.

Tired of Midterms - take heart, because they're over! (till finals ...)

Need someplace to live next term in TO? Bloor Street Subway Transient Asylum welcomes all!! For just $30 a month, you can have your own mattress and fleas. No references required. Just drop a line to us at Box4, Station Q, Toronto.

How do I love thee? Let me count the ways: um, uh, um, uh, one, um, ...

Tired of Co-op interviews? Avatar Services strikes again with a two-week special. Only $50 will get those nasty interviews out of your way because we'll attend ALL, that's right, ALL of them for you. See Mel in MC3032.

Lonely C&O major looking for suitable companion. Must play backgammon, water polo, and be addicted to onion rings. Serious inquiries only. 788-1219

New and improved Mace Spray available for getting at notice boards in Needles Hall. Pick up your can today!

Editors in need of relaxation are looking for editorial concubines. Previous experience is not a prerequisite, but is an advantage.

More Rap on Taxes

In the last few issues you may have seen articles on taxes, and how not to get ripped off. Well, here are few more hints, slightly late and from a bit different angle, but useful nevertheless.

Our wonderful taxation system is, they tell us, *progressive*. What they mean by this is that the harder you work, the higher your tax rates. In other words, making $1000 less might save you $150 in taxes, but making $1000 more will cost you around $200. From this you can determine that by making, say, $8000 in each of two years you will pay less taxes than by making $10 000 the first year and $6000 the second. How does this affect you? If you are in co-op, you can save a considerable amount of money by evening out your income over the single and double work-term years.

Continued on page 7

Continued from page 6

There are several ways of doing this, but no single one will be sufficient to even out completely, unless you are being paid *really* poorly. The first, and the simplest, is to claim two term's tuition fees for any year in which you worked two terms, and one term's fees for other years. For example, if you worked the winter and fall terms last year, you can claim the summer term's *and* this (winter) term's tuition on your 1983 return. Revenue Canada only specifies that you must claim the tuition fees for a 12-month period starting sometime in 1983. Naturally, they won't let you claim any term twice.

Another thing that could be done (even though it's too late to do it for the 1983 tax year) is to make a deposit into an RRSP at the end of the year, and withdraw it at the beginning of the next year. Since the deadline is the end of February, I make my deposit in February (not too late to avoid the rush) and the come back and withdraw it a month later. This is fully legal, and if you don't have the extra cash lying around, you can take out an RRSP loan to cover your deposit. The banks don't mind giving these out, since you are putting the money in *their* RRSP fund, and the interest on the loan is usually almost balanced out by that from the RRSP. The limit on the RRSP is (I think) 25% of your gross income, but you should check this before making a huge deposit.

The last possibility available to you is forward averaging. This allows you to simply transfer some of your income to the following taxation year. Now, the main difficulty about this lies in the fact that they check your last four years' incomes, and your income for the taxation year must be significantly higher than previously (adjusted for inflation) in order to qualify for this. However, it's worthwhile checking it out, though it might only be useful if you are a frosh now and have not yet had any two-work-term years.

Trying a combination of these three things can easily result in a savings of $200 or more, money the taxation department would otherwise taken away from you.

1984 Bus Push for Big Sisters

The Bus Push to raise funds for K-W area Big Sisters sponsored by the University of Waterloo Engineering Society will be held on Saturday, March 10, 1984.

This annual event collects pledges for pulling a Kitchener Transit bus from the campus to Market Square.

This year's goal is $7,500. Anyone interested in collecting pledges can pick up a pledge sheet in the Engineering Society office (CPH 1338). The participants who collect the most money through pledges will be eligible for prizes. This year's top prizes are a waterbed from the Waterbed Cove, a windsurfer jacket from O.W. Sports and many others.

EiseWhen

(mathNEWS *10 years ago*)

Rookie Math Prof, Greg Horndeski, two weeks ago broke a monumental modern-day record set by our own Mr. Miller (as legend has it), back in 1903, of 27 chalk-written blackboards in one 50-minute lecture. He smashed the record with a remarkable pace of a board every 1 min., 20 sec.

Final count: Miller - 27 ; Horndeski - 33.

Prof. Prompts Pain ...Recently a certain math prof gave an assignment worth about ¼ of the course grade. In his presentation he made it absolutely clear that no reasons at all were valid for extensions, machine crashes or other. He felt we should have at least one course where "deadlines must be met". Well, the project was pretty big and a lot of people put a lot of (time) into it.

What would you do if you could not *possibly* finish a project worth 25% of the grade ... A number of people felt the only alternative was to drop the course, and did so.

And when the big day rolled around and the project was due ... he gave a five day extension on it. ... I leave leave the prof in question unidentified so that he may make up his own mind on what action is required. I hope he will take this opportunity to regain some of the respect I feel he has lost over this incident.

Orientation 1984

An incredible *eighty-three* people crowded into room 3003 on Wednesday the 8th of February to attend the first Orientation '84 committee meeting. The purpose of this informal gathering was to discuss the role of the Big Brothers and toss about some initial suggestions. As past successes and failures were laughed over it became obvious that a bunch of enthusiastic mathies were going to rival (correction: surpass!) the orientation of 1982 (sorry Caps).

Involvement on the part of each Big Brother constitutes attending 3 or 4 meetings that will be held this school term, possibly time during work term and, for the benefit of all, the traditional summer "Orientation Weekend" (poorly disguised, I know) and, of course, Orientation Week.

At the next meeting the individual committees governing each of the orientation week's events and external affairs will start coming together. As a result each Big Brother will be able to get involved in their particular area of interest.

Your suggestions are always welcome whether or not you are a participant in this year's orientation. Please submit questions, suggestions and/or criticisms to the orientation mailbox in MathSoc. The next meeting is tentatively scheduled for February 29th @ 4:30 pm in a room to be announced.

Lisa Seabrooke
Director of orientation '84

Comment

There was once a time when a simple newspaper such as mathNEWS could remain in existence without resorting to aligning itself with radical political groups.

When I was a first year math student at this large institution i found it very relieving to be able to pick up a copy of mathNEWS and relax with it. It was like a simple country newspaper. It contained nothing relevant. It was even funny at times, like an old man telling funny stories between puffing on his pipe. These were good times for mathNEWS.

Now I look at a copy of mathNEWS and what do i see? Chevmath and some radical group known as the Anti Integration Alliance. Judging by the type of people that show up for the mathNEWS production night this shift will continue. MathNEWS will probably follow the path of the Milverton Daily Gazette.

Don't get me wrong. I really don't care that much about what happens to an inconsequential newspaper such as this. I am concerned, however, for the minds of future frosh entering this institution.

I will also admit that my qualifications for submit this comment are slim at best. Allegations of my affiliation with the Anti Derivative Alliance are not wholly unfounded. In fact I was an editor in the department of redundance department. But that is all in the past. I have seen the suffering and hardship that A.D.A. has inflicted upon the tiny country of Abeliana. Now I seek only to inform the world. I want people to see the foolishness of being radical.

Perhaps this comment is a little unorthodox, but my intentions are good. I want people to go back to the simple things in life. I believe that people should return to small towns in the middle of nowhere and live peaceful lives.

Happiness comes from the simple things.

dan

Math Society Budget for winter/84

Revenue		
Bank Balance Forward		$ 3390.63
Student Fees -First installment		$ 4335.00
-Second installment		$ 2890.00
From last term -Suitcase Party Refund		$ 3000.00
C&D -Repayment of Loan		$ 1000.00
-Repayment of Float		$ 500.00
Photocopies (approx)		$ 1000.00
Sales of T-Shirts, Buttons, Rulers		$ 75.00
		$15190.63
Expenditures		
Fee Refunds		$ 105.00
Phone		$ 120.00
Photocopier		$ 1000.00
Math Grad Ball		$ 1000.00
Orientation		$ 1000.00
Mathletics		$ 200.00
Elections		$ 70.00
Warriors Band Trip Contribution		$ 250.00
C&D Renovation Loan Repayment		$ 4000.00
Central Stores		$ 300.00
Graphics Services (Publicity)		$ 100.00
Office Equiptment		$ 300.00
mathNEWS		$ 1800.00
Changeable Directory Board		$ 600.00
Social		
Late Show Road Trip Loss	$ 120.00	
Movie Nights (2)	$ 400.00	
Wine + Cheese	$ 1400.00	
Subtotal		$ 1920.00
Contingency Fund -Spring 84 startup		$ 1000.00
-Fall 83 debts		$ 500.00
-This term		$ 800.00
Total Expenditures		$15165.00
Net Surplus		**$ 25.63**

New Courses

Watsfic 471 F 3C,3L,5T 0.75
Advanced Jedi Training
The neophyte will be taught to make black masks and Stentorian breathing noises. The student may prefer to be a wimp in brown robes.

CS 489 F,W 12L 0.5
Advanced Rogue
The student will learn the concealment of the program from system administrators, as well as strategies up to level 20. Final exam will be waived if the student is able to complete the game.
Prerequisite: CS 103 (Introduction to Joysticks), CS 386 (Intermediate Star Trek) and CS 389 (Advanced Pac-Man)

Tape Tangles

What's in a tape? Does it pay to use only chrome tapes? Is a metal tape worth $10? You can find [some] answers in here, but good answers are really quite hard to find, and you'll just have to make the final decision for yourself.

Ferric vs. Chrome vs. Metal

Using IEC standards, tapes are categorized into categories. Each of these is briefly explained below.

Type 0 is your basic cheap "Acme C-90" cassette, using ferric equilization and bias. No self-respecting manufacturer makes these tapes.

Type 1 is also known as "normal" and "ferric". It uses normal bias and 120 us equalization, and ranges in price from $1.50 to $5.00.

Type 2 is the "chrome dioxide" or "high bias" variety. It is coated either with chrome dioxide particles, or, more often, with cobalt-treated ferric particles. It uses higher bias than Type 1, and 70 us equalization, resulting in less tape hiss (ie. bigger S/N ratio). These tapes run from $3.00 to $6.00.

Type 3 is the now-nearly-obsolete ferrichrome tape. One of its many problems is the large difference between various manufacturer's tapes.

Type 4 is coated with pure un-oxidized metal particles, and uses very high bias and chrome-level equalization.

Comparing similar-quality tapes in types 1,2, and 4, we can observe that the metal tape will have the most headroom, with the chrome in second place. The latter, though, will have the worst S/N ratio, with metal having a slight edge on chrome.

But ...

More important than the type, though, is the quality of the tape you are using. First of all, you should stay with major manufacturers such as TDK, Maxell, Sony and Fuji. These companies have full lines of tapes. For example, in ferric tapes TDK offers the D at less than $2, AD at about $3 and AD-X at over $4. While the D is really not a high-performance model, the AD-X beats out the SA in quality and closely rivals the $5 SA-X.

One could group the normal and chrome tapes under "good", "better", and "best" as follows:

good:TDK D; Maxell UD; Sony LNX
better: TDK AD,SA; Maxell UDXL-I, UDXL-II; Sony HFX, UCX
best: TDK AD-X, SA-X; Maxell XL-IS, XL-IIS; Sony EHF, UCX-S

Now, check your cassette deck owner's manual for a list of recommended tapes. Using this with the categories listed above, you will only have have a few tapes left. Now you can let the price and your personal preference decide.

- Vainamoinen

PROLEFEED

As Monica gently caressed her long tresses the bus ran over the Yak that down the street and I say gently did not even to assume all this and yet
When and why and yet how did you come by this this grate beetle learning spiel speak and why have you waited so long O Lord said the Paulmist Job which then then than then you did not the centroid befuddle
discontinuity for whom I long did learn and resensitivity for which I long did wait O why O why O did Monica wait?

Aristophanes was a sailor who sailed the gluey seas of bookshelf and teapot and Yak marmalade but what about Reaganicide you say well I tell you Indy that the current thought patterns indicate a stony g0025
Hamlet hammed a Hamburger O and what of the Kaiser again I say that the discont inuity of the set has no meaning in the works of Nietzsche or Bradbury
Tim I say why did Monica say Tim I say Say Mike and paralysis Paul and there th ey found him all hard and cold and his heart of hearts was recombined with a Yak from Peoria ...

Relatively speaking there is no difference between the difference between absolute differences and the differences of absolute differences of relative differences between speaking and playing the Cat
Perhaps this is the level or lever whereat all meaning melds and meets and the typographical is more relevant than the symbolical or illogical or call me tomorrow with a side order of Anchovies
The ancient anchorites did antecede their partials and did level the city of the Gods O God O my prayers go unanswered and life is a tunnel with no drinking fountains O O O and what will be around the corner

Beam me up Scotty, we've waited long enough.

DMKG random logo POESS kill() relink /mass/mind/novel/machineNoTwenty
RRRRellicccccccccc

well, well, well.. this has been a night of chaos, a night of grand designs, a night of disappointments, a night of plenntiful material, a night of uncovering, a night of insults, a night of ... well, enough of that. Basically, what happened was that we were trying to do this as the first issue on the DCS Unix, using troff, eqn and all the other neat things. You may note that some of the articles we did manage to use troff for, with all kinds of mathiey-looking symbols and fancy headings. However, around 9:30 pm, when we had some 15 articles queued for printing, the Imagenn crashed, and we panicked. We ended up sending the files back to CMS, changing all the formatting commands and then printing the files on the Xerox --- that's where this will be printed, too, unless DCS decides to shut it down before I finish typing this in. The articles tonight were contributed by many people, and the following list includes both the authors as well as those peoples whose articles were cut (would you believe we cut out ove 3 pages of material???). Tom Ivey (Belle, Riddles, declassifieds, co-opinions), Cary Timar (MathSoc Report), Scooter (gender gap), Pat Hurley (McUnix), Vainamoinen (tape tangles), Fraser Simpson (crossword, three's company), dan (Comment), Tom Ivey again (wrong, prolefeed), Dave Till (theory vs. practice), Tom Watts ((that's me) masthead, tax rap), ernie (new courses), Lisa Seabrooke (orientation), and the people who wrote to the editor (read: me). While we are talking about the orientation, I would like to express my humblest apologies to Lisa for having lost her article in the previous production night, and so not having been able to get it into last issue. If you were wonderinng about all the articles above that don't seem to exist, just consider it to be a preview of the next issue. As for the production staff, we had lots of people, with just about everybody doing layout and taping. Special credits in brackets. Alfred ECTvN (production manager staying late (still here)), Scooter! (calendar), Tom Ivey (everything, Xerox conversion and FAST typing), Ernie, Jane Roberts, Dave Till (only in spirit), Tom Watts, oh yes and Marcel should have been credited with entertainment, Ross Morrissey (pointed out the MathSoc budget isn't quite correct), Mark (bullletin board policy (next time for that too...)). Sorry for the omissions; Graphic Services has jacked up their prices and we have to cut back on the pages. My apologies to those on the staff who have not yet been reimbursed for their pizza money due to me not presenting the budget (chuck did gripe about it in his MS report (last issue he deleted a feature note from the cover promoting a '2 1/2 page Cary Timar extravaganza')). How I long for unix ... I'll even accept oe to get vi and rogue. Thanks to Godfather's for their pizza, although it really wasn't that good. However, when you're hungry, you'll eat anything... Well, it's been a hectic night, with practically no time for rogue. However, I can already see issue 6 (read: the end) looming on the horizon. Oh well, 'tis now 0047 hours and I think I better get this printed ... 192 % logout

Missed it last summer ?

Been miserable since ?

Here it is again !

PRETTY IN PINK

Wine & Cheese

$4 Mathies

$5 Non-Mathies

25¢ a glass * 4 free with Pink Tie

all imported wines

Sat. March 17 S.C.H.

TICKETS IN MATHSOC

Scrambled Cryptic

by Fraser Simpson

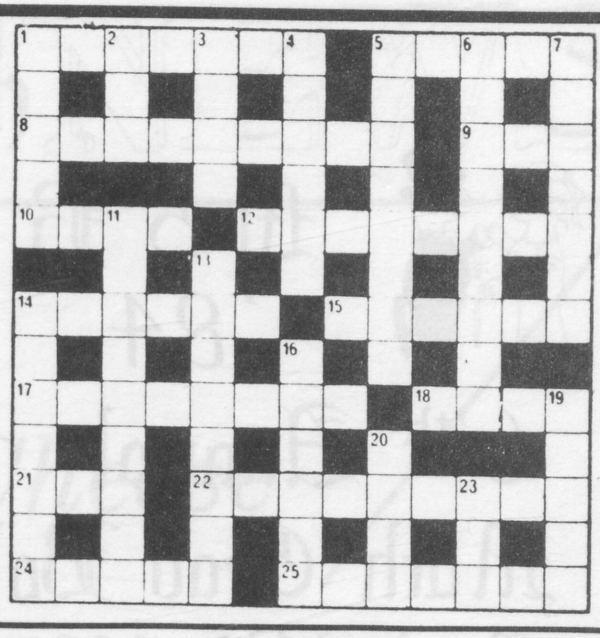
Here's a cryptic crossword with a twist. We have given you all of the clues, but with no indication as to where they are to go in the diagram. It won't be as tough as you thing though, since the symmetry of the diagram ensures that there are only two each of 3-, 4-, 5-, 6-, 7-, 8-, and 9-letter words in the across section, and similarly for the down section. To start you off, we'll tell you that the answer to (A) goes into 17-across, and the answer to (Q) goes into 4-down. Solutions should be submitted to **mathNEWS** no later than March 10, 1984. Prize for the (lucky) correct solution will be a Math 83/84 T-shirt. Winner will be announced in the next issue, along with this issue's solution. Last issue's winner was Mary Moore — pick up your prize in the MathSoc office.

dy/dx = 0

A. Move Bern for a change before December.
B. Turkey's capital to request duty.
C. Confused aldermen cut off from jewel.
D. Scold worker taking in scoundrel.
E. He brings news of the horrible green mess.
F. All of what the busy coroner had to inspect.
G. You'll get a sister one way or another.
H. Rural example, perhaps, of a frequent customer.
J. Pin the wrong way, and catch some skin.
K. Soothes part of one's foot in the midst of studies.
L. Shake false hair stuck on the leg, perhaps.
M. Types of orders.
N. He wrote epic poems about a strange hero.
P. A lot of sheep listened in, it's said.

dx/dy = 0

Q. Somehow ignore the area.
R. Honour an American patriot.
S. Ban an aspirin containing fruit.
T. Send money to get the timer back.
U. Some lovable eggs.
V. One's way of speaking.
W. Talk a lot of boring aspirations.
X. Neil goes up to get a right to claim property.
Y. Masters many an arrangement but hesitates in speech.
Z. It's used to burn dead people and prey, perhaps.
AA. The old clerk Vince errs terribly.
BB. Sport that is ruined by a witty reply.
CC. Wood nymph reads boring advertisement.
DD. Difficulty of a tough boat.



Opinion

What Price Co-op?

When we all came here as frosh, one time or another, we were made aware of the advantages and disadvantages of co-operative education. Among the advantages were more job experience on graduation, and the integration of hands-on work with (more or less) textbook education.

Among the disadvantages were that the regular students graduated earlier into the job market, and that the much-touted placement rates fluctuated dynamically with the state of the economy.

But co-op is also more expensive. Just what does your co-op fee pay for? It helps pay co-ordinator's salaries, those of the ten or twelve clerks in Co-ordination, the printing of the Want Ads and job descriptions, the numerous long distance calls co-ordinators make, travelling expenses, computer time, canned music, ... The list goes on. But for all math co-op students, there are two terms (either 1A and 4B or 4A and 4B) in which we pay this fee and receive no benefit from it.

For example, a friend who is now in 3B Applied Math has just dropped out of co-op. He already has a job lined up for the summer term, so he has no further need for the services of Co-ordination and Placement. His degree will not have "Co-op" after it, but he will still have the two years work experience.

I'm not advocating this; certainly a decision like that depends very much on individual circumstances. But the fact that some people are dropping out of co-op should make us question the importance of a co-op degree and in particular the way Waterloo runs co-op. We need to know more about what lies ahead, after graduation, to make the right decisions now. Discussing the merits of the co-op system with graduates who have been in industrial, government, and institutional position for several years would help us make career choices. Until there is more communication between upper-year and junior students, and between graduates and undergraduates, we will have to simply move blindly ahead.

Tom Ivey

MGB '84

6'th Annual Math Grad Ball

March 24'th, 1984

Transylvania Club

Music by Toronto Harbour

Special discounts at Schnarr Florists, Collins House of Formals

feedback

Dear mathNEWS:

This letter is in response to the *Hot Wheels* article contained in your periodical distributed on Feb. 17, 1984. The article was a review of a 1974 Ford Galaxie 500. One of the statements we object to is that the car *(sic)* is frequently available with a 350 cid engine. The 350 engine was and still is made by General Motors, so we suggest that the engine in question may be a 351. (351W, 351C, 351M ?)

The other problem is not a glaring error but more of a contradiction. The statement "Vinyl roof (also in green) is a standard option" must have been written by a Mathie who failed the ELPE. When referring to cars, the terms standard and option have opposite meanings. Referring to something as a standard option is blatantly wrong. More preferable would be the phrase "common option'. i.e. "Fuzzy dice are a common option on Trans Ams.'

I you really want a fast car to surprise Porsches with, we recommend a Mustang Fastback (65 - 69 vintage) with a tasteful amount of surface rust. When the guy in the Porsche laughs at your car, just leave him in smoke. He won't give chase because Pirelli P7' are too expenive to burn off.

Boy Gord & Amy

Various Unwritten Conventions

[1] **U** is always open in **R** .

[2] ϵ is always greater than zero, and is accompanied by $\delta > 0$.

[3] Diagrams always commute (MacLaren's Theorem: otherwise we wouldn't bother writing them down.)

[4] i, j and k are always integers.

[5] p is always prime.

[6] p is always the number of vertices in a graph and q is always the number of edges.

[7] G is always either a group or a graph. If G is a group, then H is a subgroup of G.

[8] f is always a function. If you need another function, then it is g. If you are especially greedy and want a third one, it is called h. ϕ and ψ are also functions, but using them is in the same genre as crossing 7's. Nice people don't talk about more than five functions at a time.

[9] Should you have to integrate f, it's integral is F.

[10] Geometry was first popularized by the Greeks. In deference to them, we call angles θ, α, β, γ. (Note the order of preference.) Roman letters are not in good taste.

[11] Integers are always chosen from i to n. This is so that FORTRAN programmers can figure out what's going on.

[12] All matrices have dimensions of n×n, n×m, m×n or m×m.

[13] There are n balls in every urn.

[14] The probability of success is always p.

Dear mathNEWS:

Re: Cary Timar's MathSoc Report

It is my understanding that the purpose of the Secretary's *report* on MathSoc meetings was to *report* on what was discussed in the meetings. Yet, in the report presented in the Feb. 17/84 edition of **mathNEWS**, half a page of this report was used by the Secretary to report his own views on the Constitution. It is not, as I see it, for the Secretary to use the reporting process as a vehicle for presenting his personal opinions. The purpose of the report is to inform the Math students of the business covered at the MathSoc council meetings. I suggest that the Secretary confine himself to reporting on business covered at MathSoc council meetings. Opinions can be expressed freely in letters to the Editor.

Phil Morley
4B Class Rep
MathSoc Council