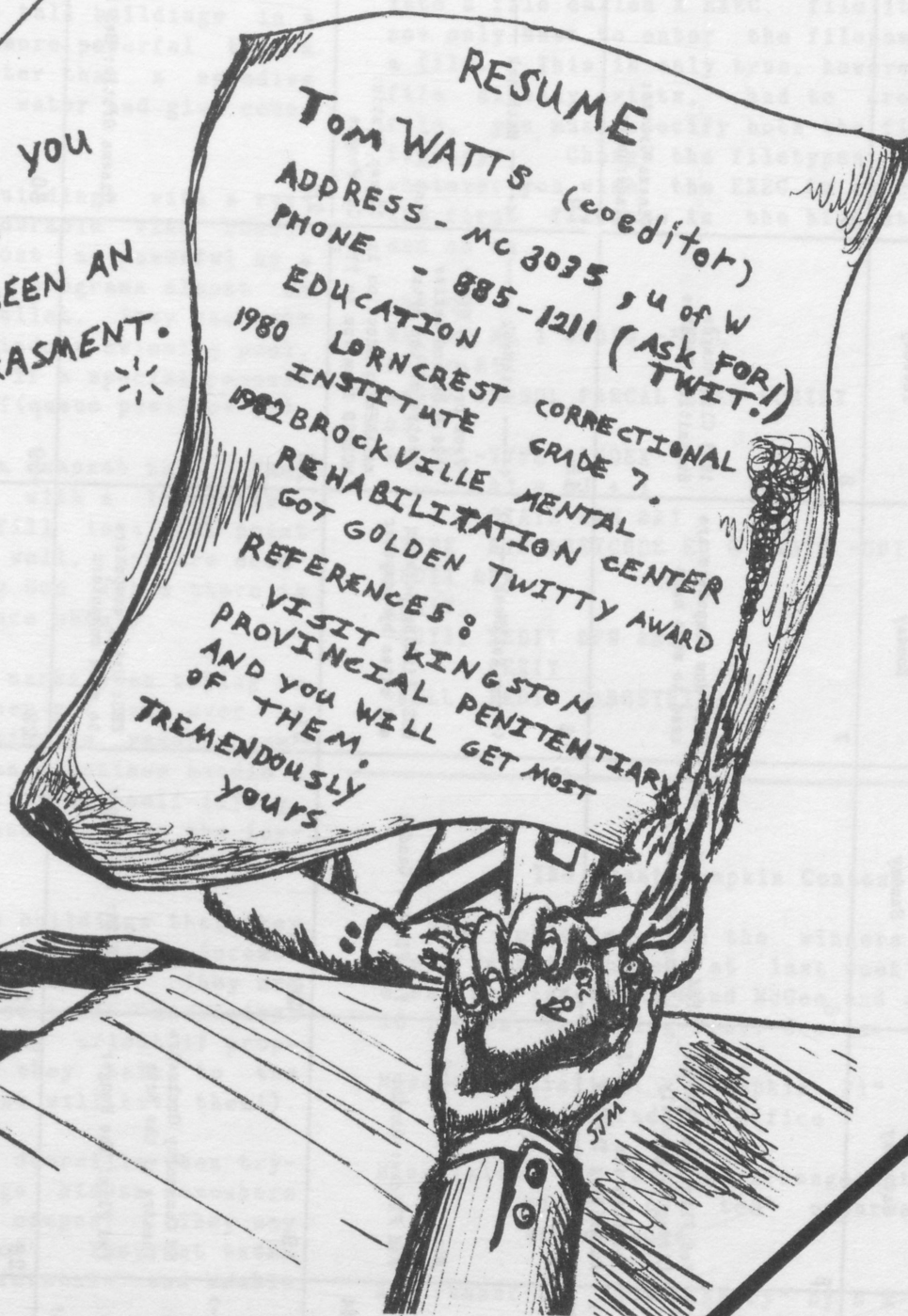


Vol. 33 no. 4
Friday Nov. 4, 1983

math NEWS

Thank you
sir, ...
IT'S BEEN AN
EMBARRASMENT. *



Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
4 November Preregistration ends Fed Flix: The Year of Living Dangerously mathNEWS (you're reading it!)	5 Fed Flix: The Year of Living Dangerously The Frantics \$7.50 Humanities Theatre	6 Fed Flix: The Year of Living Dangerously	7 BBS: How computers are used to make maps	8 1983 Clio Awards Humanities Theatre	9 Cinema Gratis: Bladerunner	10 FASS writers meeting 7:30pm in ML104
11 November Remembrance Day MGB Night! Fed Flix: Gandhi Ruah Dance Comedy \$4 Humanities Theatre	12 Wine & Cheese Party! Fed Flix: Gandhi	13 Fed Flicks: Gandhi	14 <----- MathWeek -----> BBS: Linking museums and sites by computer	15 <----- MathWeek -----> "From Death to Life" 1984 & Beyond series Theatre of the Arts mathNEWS production in MC3038 from 7pm to ???	16 <----- MathWeek -----> Pink Day! Cinema Gratis: Cat People	17 <----- MathWeek -----> A Toi Pour Toujours, Ta Marie-Lou Theatre of the Arts FASS writers meeting 7:30pm in ML104
18 November <----- MathWeek -----> Canadian Forces Band Theatre of the Arts Fed Flix: The Hunger mathNEWS 33:5 is out!	19 KW Community Orchestra Theatre of the Arts Fed Flix: The Hunger	20 Fed Flix: The Hunger	21 BBS: Using computers to make computers	22 mathNEWS production in MC3038 from 7pm to ???	23 Cinema Gratis: Ben Hur	24 FASS writers meeting 7:30pm in ML104
25 November Fed Flix: National Lampoon Class Reunion MGB Record Raffle!	26 Fed Flix: National Lampoon Class Reunion Wizard of Oz \$3.50 Humanities Theatre	27 Fed Flix: National Lampoon Class reunion John Gray's Rock and Roll (musical) Humanities Theatre	28 BBS: Dancers on the	29 mathNEWS production in MC3038 from 7pm to ???	30 Cinema Gratis: High Road to China	1 December FASS writers meeting 7:30 pm in ML104

Notes: BBS stands for Brown Bag Seminars. These are held in MH3001, 12-1pm. Bring your lunch!

Identification of

SCuMSbag

Student Species

Real Mathies: Leap tall buildings in a single bound, are more powerful than a locomotive are faster than a speeding bullet, can walk on water and give counsel to God.

CS'ers: Leap shorter buildings with a running start and favourable wind conditions, they are almost as powerful as a switch engine, run programs almost as fast as a speeding bullet. They can walk on top of a heated indoor swimming pool, and they talk to God if a special request is approved by WIDJET(queue position 69).

CA's: Can barely clear a quanset hut. They lose a tug of war with a locomotive. They can insert a refill in a ball point pen. They can swim well, and are occasionally addressed by God (when there is an error in the balance sheet).

Pure Mathies: Make high marks when trying to leap buildings. They get run over by locomotives when trying to reserve computer time. They can sometimes handle a stapler without inflicting self-injury. They can dog paddle and talk to the lowest animals.

Engineers: They run into buildings that they designed. They can recognize a locomotive two out of three times. They are issued pen refills for their mechanical pencils. They can stay afloat if properly instructed and they talk to the water (since no one else will have them!).

Artsies: They fall over doorsills when trying to enter buildings hidden somewhere on the other side of campus. They say "look at the choo-choo!". They wet themselves at the water fountain and mumble to themselves.

mathNEWS editors lift buildings and walk under them, kick locomotives off the tracks, catch speeding bullets in their teeth and chew them up. They freeze water with a single glance. They are God.

Last week I promised to show you how to write a X EXEC, but since then I've had a change of heart. 99% of you do not or do not want to know how to write EXECs, so instead you get a listing, which is below. Type this into a file called X EXEC, file it, and you now only have to enter the filename to Xedit a file. This is only true, however, if the file already exists, and to create a new file, you must specify both the filename and filetype. Change the filetypes on line 4 to whatever you wish the EXEC to check for --- the first filename is the highest priority and so on.

```
&TRACE
&IF &N NE 1 &GOTO -FULL
&FN = &1
&ARGS SNOBOL PASCAL EXEC SCRIPT
&J = 0
&LOOP -TYPE &INDEX
      &J = &J + 1
      STATE &FN &&J
-TYPE &IF &RETCODE EQ 0 &GOTO -GOTIT
XEDIT &FN
&EXIT
-GOTIT XEDIT &FN &&J
      &EXIT
-FULL XEDIT &ARGSTRING
```

The Great Pumpkin Contest

The following are the winners for the Great Pumpkin Contest at last week's Halloween Pub, judged by Stud McGee and a panel of 10 judges, including Prof. Scoins.

Miss Congeniality: "Pumpkin Pi" by Math Undergraduate Office

Miss Talent: "A Vertical Arrangement of Pumpkins" by too embarrassed to acknowledge.

2nd runner-up: "Ron & Kerry" by B & B

1st runner-up: "Porky Pumpkin" by Craig Wallis & Genia Krubnik

The winner: "Gypsy" by Chuck & Diana

Congratulations to all the winners!

More Computer Courses Available

If you're in a Computer Science course (or have tried to be), you'll have noticed that there is a limited number of courses you can take because of the new restrictions. Honours Computer Science students have filled the MCS courses to their limits (and over). Those not in Honours CS are locked out of the MCS courses and have been given a rather meagre fare to choose from instead. Well, the CS Department has found that even these watered-down-version courses are filling up too quickly, so students should watch for these new courses:

CS 225 F,W,S 2C 0.05

Introduction to the Introduction of Computers

This course is intended for those students who couldn't get a place in CS 235 (who are students who couldn't get a place in CS 250). This course is intended to give the student a slight glimpse at what makes up a computer, and a tiny peek at what a low-level language is. Specific topics include: introduction to a screen and keyboard, and actual assembler language program, commands used in sending a program to be compiled, what error messages are.

Prereq: one of CS 101, 102, or two of CS 10, 15, 32. Credit will be granted for only one of CS 202, 225.

CS304 F,W,S 2C 0.25

Data Structures in Waterloo BASIC

The study of data structures in Waterloo Structured BASIC, with special emphasis on business applications. Usually taught as a short course.

Prereq: CS116 or equivalent. No business background required.

CS304 cannot be counted for credit toward any degree.

CS300 F OC 3.00

Third-Year Computer Science

This course is intended for those students who want all of the third-year CS courses, but haven't a hope of getting any of them. The student will design and build an original computer and implement the language of his choice. Topics include: designing integrated circuits, searching for an application of

finite automata to anything, trees, forests, bugs, handling interrupts, interruptors, and CS advisors for fourth-year courses.

Prereq: CS240, CS250 (no questions asked about how you got them). Credit will be granted for either CS300 or the set CS 340, 350, 354, 360, 369, 375. Sorry, no substitutions, or it just wouldn't be CS300.

This Week's Theorem

Required: Prove that $0 > \text{zero}$

Proof:

Define the series:

$$u = 1 + 1/3 + 1/5 + 1/7 + \dots$$

$$v = 1/2 + 1/4 + 1/6 + 1/8 + \dots$$

Now

$$2v = 1 + 1/2 + 1/3 + 1/4 + \dots$$

$$2v = u + v$$

$$u - v = 0$$

But,

$$u - v = (1 - 1/2) + (1/3 - 1/4) + (1/5 - 1/6) + (1/7 - 1/8) + \dots$$

Each term of this series is $> \text{zero}$.

$$u - v > \text{zero}$$

$$0 > \text{zero}$$

Q. E. D.

mathNEWS welcomes original theorems for this column (Green's theorem does not qualify!)

Errata, Elucidation, Addenda, and Apologia

Well, baseball may be over for another season, but mathNEWS is still making lots of errors. It was another triple play last issue. First, the mysterious barcode on the cover was actually upside-down, so I can assume that is why no one figured it out (it's in 7-bit ASCII code, by the way). Next, MathSoc's treasurer is Ian Sargeant who is in no way related to Kelly Masterson, the VP. Finally, we kind of shortchanged the credit that Co-ordination and Placement deserve for the high placement percentage. They bust their butts so we can make the bucks, and we truly appreciate it.

THE MATHEMATICS COLUMN

Trivial Pursuit with the Book of Knowledge

by Fraser Simpson

"How many times is a Roman numeral's value increased if it has a line over it?"

Trivial Pursuit question

In my room at home I have two sets of encyclopaedias. That may sound terribly scholarly, but the truth is that my room is the only convenient place in the house for them. The first set of volumes have crisp, colourful pages and blue and white covers. This information inside is presented in a matter-of-fact style with lots of headings and sub-headings. Together, they form The New Book of Knowledge. The other encyclopaedia is The Book of Knowledge (I'll call it the 'Old' Book of Knowledge to distinguish the two). It contains twenty volumes with maroon covers and faded gold lettering. There is no order to the material in it; the only way to find what you are looking for is to use the index. For me, the difference between the two encyclopaedias is simple. I use the New Book of Knowledge to find the information I need when I need it. I read the Old Book of Knowledge.

The Old Book of Knowledge is divided into 16 'books'. Some of them are The Book of Familiar Things, The Book of Earth, and The Book of All Countries. In each volume, two or three installments of each book appear. Between these articles one sometimes finds puzzles and games, a French lesson, or even How to Tell Time by the Clock.

I think of the Book of Knowledge as being a reference work for schoolchildren (indeed, it is subtitled 'The Children's Encyclopaedia'), but it has surprises. For example, an article on page 4499 with the title "How To Make Concrete Steps" and an impressive drawing showing what to build before pouring the concrete. The text, typical of The Book of Knowledge, does not explain how skilled adults make concrete steps. Rather, it explains how you, the reader, will go about making them. The first line of the article reminds you that "you have learned how to make a concrete sidewalk on page 3854."

Across from the concrete steps article is a diversion entitled "Tricks with a Set of Dominoes". The text explains some conjuring tricks "that will cause much wonder among the audience". One of them is a version of those pick-a-number problems:

"To begin with, we may invite someone to pick out any domino he pleases, and after noticing its spots, hold it hidden in his hand. He is then to multiply the spots at either end of the domino by 2, add 5 to the product, multiply the total so obtained by 5, and add the spots at the opposite end. On his stating the final result, we shall tell him what domino he chose."

The reader is invited to work out what the conjuror must do in order to figure out the number of spots at the ends of the spectator's domino before I give the answer, as usual, in next issue's column.

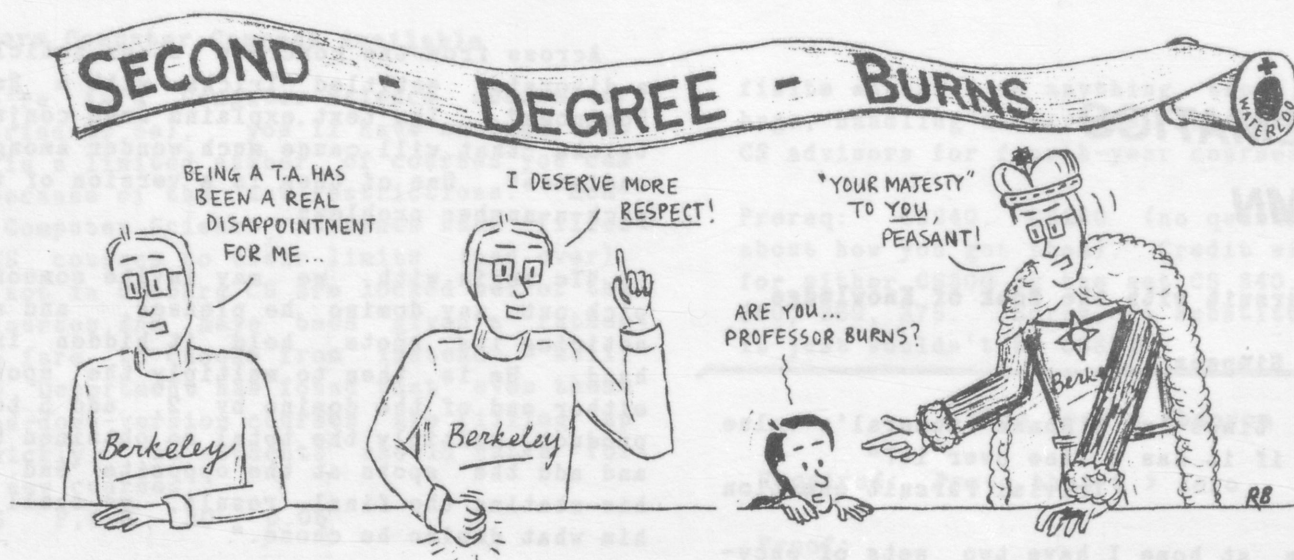
The most fascinating part of this encyclopaedia for me is the set of articles that make up The Book of Wonder. Each article is made up of a variety of questions that have been answered in a paragraph or two. I include below some (ruthlessly edited) excerpts that have very little to do with mathematics. Some are informative or humorous, but all, I trust, will be interesting.

How many English words do we use? We need not tremble at the number of words it is possible to use. Our greatest writers find quite a small number sufficient for their purposes. Shakespeare, with all his varied writings, used only about 15,000 different words. Milton needed only 8,000 different words for Paradise Lost, while the Old Testament contains fewer than 6,000 different words. Some country people use only about a thousand different words, but most of us use no more than two or three thousand.

Can we think about things that do not interest us? No. We simply cannot think of things that do not interest us; it is interest that starts us thinking.

Are earrings good for the eyes? We do not know anything good that can be said of earrings; but, of course, we must not say any evil of them that is not true. It is utterly untrue that piercing the ears, with or without the wearing of earrings, has any effect at all upon the eyes.

Continued on page 13



CS restrictions

Today is the last day for preregistration for spring/84. As there are a fair number of computer science restrictions, mathNEWS has decided to mention some of the lesser known ones for your benefit.

- only CS140 will be available to 1B regular math students
- all year 3 and 4 coop students who are not honours CS majors are allowed at most 2 CS courses per term and must limit their selections to CS courses with a blank division suffix.
- year 4 honours CS majors will be allowed to preregister at most 2 courses. from CS 44x, 45x, 48x, and 49x. Their third course can come from the 460's and 470's.
- CS 250 is normally a 2A course, and CS 240 a 2B course.
- only CS 340, 369 and 375 will be offered to 3rd year students this term.
- a new 4th year non-major course has been added: CS 430 (Application Software engineering).
- MCS division suffixes will normally be available to CS majors only.
- a CS minor now consists of CS 140, 234, 235 and 6 additional CS half credits.

Be sure to read over all the preregistration material carefully before making your selections.

There is also going to be a meeting of all interested students concerning the Computer Science course restrictions. The date and time of this meeting will be posted on various bulletin boards. Watch for it!

T-Shirts

MathSoc now has a quantity of 83/84 Math T-Shirts available. The shirts feature Alice with the Cheshire Cat and the caption "You must be mad or you wouldn't have come here." They are available in black printing on red, and navy printing on sky blue shirts. The sizes are S, M, L and XL, and the cost is \$5.00 per shirt including sales tax.

Smoking/ Non-smoking Lounges

For those who just came back from the moon, the math C&D has switched from the non-smoking side to the smoking side of the undergrad lounge. Well, not any more. That is, the smoking side is now the non-smoking side, and vice-versa (it's commutative). Signs should have been on display by this time to remind people where they can and can't smoke. Please take note, and respect the rights of others in the these areas.

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WATSFIC

Office: MC3036 Meetings: Wednesday's, 7:30pm.

The Watsfic T-Shirts arrived around the end of October, and are for sale for about \$7.00 each. They are available in either black or yellow, with a yellow or black (respectively) fire-breathing dragon on the front. These T-Shirts have been cleverly designed using U of W school colours. They are available from the Watsfic office while supplies last.

The Watsfic Advanced Dungeons and Dragons tournament is fast approaching. It is being held on the weekend of November 12th and 13th (only one week from now). The entrance fee is \$3.50 per person, with discounts given to Feds, Watsfic members, and teams, making the price as low as \$2.50. No skill is required, and anyone: Faculty, Administration, Staff, Students, and Non-Students, can enter (We've got FASS beat there!).

The tournament consists of two rounds. The first round is the qualifying round. The best teams from the first round then proceed to the second round for the championship. Prizes are awarded to the top three teams, the best role-players, and the team winning the first round.

The list of prizes includes cash, AD&D Monster Manuals, lead figurines, Watsfic T-Shirts, sets of polyhedra dice, and gift certificates. In addition, the winning team gets their name inscribed on the AD&D trophy (on display in the display cabinet on the third floor of the Math building).

Next issue the winners of the AD&D tourney and the short story writing contest will be announced. Though the last day for entering the short story contest has passed, you can still enter the Advanced Dungeons and Dragons Tourney. No skill is required, and you can't win if you don't enter!

(Note: AD&D is a trademark of some game company, so I should give it all the legal recognition it deserves. But all Role-Players already recognize the contribution of the creator of AD&D.)

Richard Tummers

platter spatter

Big Country / The Crossing: Hype. Is it worth eight dollars? I think not. When you purchase the debut Big Country album (named "The Crossing"), that's exactly what you pay for. Okay, okay, granted that the first single release, "In a Big Country" is a catchy little ditty, currently number one on CHYM's top five countdown (a sure sign of borderline mediocrity). Pay two bucks for the 45, or if you really want to blow eight, get the import single. Why Steve Lillywhite, who brought us U2 and Steve Winwood, would produce mundane drivel such as this, escapes me. Sounding at times like a toned down (tied up?) Dexy's Midnight Runners, this album covers a variety of rhythms and styles, but never quite excels at any of them. A folk music influence abounds, but the lyrics never rise to meet it. Maybe the reason the photo on the album cover is so grainy is that they plan to change their name and try again...

Culture Club / Colour by Numbers: This new Culture Club album has our hermaphraditic Boy George headed in a new direction; only a few tracks bear any rhythmic resemblance to their smash debut album "Kissing to be Clever." Suddenly, we see a sensitive side to the Boy, as he sings love ballads instead of the war cries on the first album. The song "That's the Way" is particularly moving: accompanied by only keyboards and a backup vocalist, Boy George laments "You'll be sorry in the morning / When we tell your / Mama had tears in her eyes / She's the only one that never lies". This is not to say that the album lacks dance material. The pop song "Karma Chameleon," already getting local AM play, and the Motown-oriented "Church of the Poisoned Mind" are two of the catchiest songs produced by Culture Club. Instead of resting on their laurels and diving head first into stagnation (remember the GO-Go's?) the group has taken on a new, refreshing tack.

Steve Maulsby

What's Hot

Eurythmics
new Genesis EP
Quiet Riot
Toronto
new Pat Benatar

What's Not

Big Country
Parachute Club
Michael Jackson
Imprint album reviews
(Sorry guys)

HIGH FIDELITY

First of all, a correction to the last article: look for a 3 year warranty in turntables and tape decks, not 1 year.

Now, a look at tape decks. In recent years, the intensive development in tape decks has led to a bizarre selection of features and brands. This article may help you in the selection of a good tape deck for your money. I will not attempt to list each brand, but will comment on various features and where these features can be found.

The first thing you should consider when buying a deck is the sound quality. This is very hard to describe in an article; the best thing to do is to take a friend along, and trust your ears. Ask the dealer to tape an album and compare the quality of the recording to the original. Obviously you are looking for a deck that reproduces the sound as closely as possible.

The next thing to look at is durability and operation of controls. Walk on a carpet and build up static charge on yourself. Then, while a tape is being played, touch the deck. Does the release of charge interfere with the power flow, the sound distort, the lights flicker, or tape tangle? If so, stay away from this deck. After checking the warranty, look at the deck's design. A lot of metal often indicates durability. This is not, however, a necessity.

Try the controls on the deck: do they move, push in and turn smoothly? Look at the tape drawer, press eject and observe the opening of the drawer. There are three main types of drawers: toaster, weight balance, and hydraulic. Toaster eject speaks for itself. Weight balance is the familiar slow opening of the door. The best mechanisms are hydraulic. Try to get a deck that has one of the two latter types of drawers. So what is so important about the drawer? A high-quality drawer is a good indicator of overall deck quality. The next feature to look at is the transport controls (the transport controls are the keys/buttons that make the tape play, fast-forward, etc.).

Here are the major types:

- 1) piano-key (mechanical push-down)
- 2) soft-touch (motor-assisted)
- 3) feather-touch (solenoid-operated)

Try to buy a deck with feather-touch controls, since piano-key transports tend to deteriorate with use and power contacts weaken. Feather-touch also allows you to switch directly from reverse to fast-forward and so on. One-step recording on feather-touch controls makes recording easier, but you could put holes in tapes before you realize it. Thus, if you buy a one-step deck, it is not a bad idea to remove the recording tabs from any valued tapes.

The deck should have full facilities for switching between different types of tapes. The current cassette types are:

Type I: Normal (Ferric)

Type II: Chrome (CrO₂)

Type III: FerriChrome (FeCr)

Type IV: Metal

FerriChrome tapes are not very popular, so don't worry if the deck does not have that option. Metal tape compatibility is no longer a novelty and metal tapes can be played on the CrO₂ position, and vice-versa. However, the same is not true of recording. Therefore, record metal in the metal position only. Usually, normal biasing controls without fine tuning/calibration controls should deliver a flat enough response for your tastes.

One of the most important features of a tape deck is the noise reduction system. Does it have one? Noise reduction is not necessary for those of you who enjoy your music intermingled with the sound of a hundred or so snakes. For others, who do not enjoy reptiles as much, take heart! Almost all tape decks have some kind of noise reduction system. The most well known are listed here.

Dolby B This is the 'standard' noise reduction that comes on most decks. It reduces hiss considerably, but does not work wonders. **Dolby C** is a newer system that is offered in many new models. It reduces a wider range of noise, and by a larger amount.

ANRS is JVC's own system, and is equivalent to Dolby B.

DBX is a more expensive system which practically eliminates all tape hiss. The main problem with DBX is that any tapes recorded with this system must be played on a DBX-equipped deck.

super ANRS and Dolby HX are not really noise reduction systems; rather, they extend a tape's capability of recording high-frequency sounds. pp. If you have any questions about the noise reduction systems, or anything else in this article, slip a note in the math-NEWS box and I will try to answer them in the next issue.

APLsoup

It seems that people found last week's APLsoup problem either (a) too tough or (b) too dull. Well, if the first one is your problem, I can't help you, and if it's the second one, I won't help you (I have the editor's (that's me) authorization to make this column as boring as possible.)

Allan Stokes & Alan Yoshioka submitted a solution (written on a PC yet) that will perform the graphing in 66 characters, if I counted right. The function (PLOT, see listing below) takes as a left argument the shape of the plot matrix (more than 2 dimensions should somebody wish to plot such a foolish graph) and the plot data is passed as the right argument, each dimension in a separate column. It seems to work, even on CMS, despite the fact that it is not very elegant, so we'll award a Math T-shirt to the boys (maybe you can wear it alternate days). A solution was also submitted by Ron Knox, but this one has some 106 characters, even though they are on a single line, and (ugh!) uses looping.

For this week, I have an easy one: write a function that will take as arguments two complex matrices and multiply them using the rules of linear algebra. The function should NOT crash if the dimensions of the matrices do not match! For example, a 4 by 4 complex matrix would be represented in APL by a matrix of shape 4 4 2, where the real is the first component on the last axis, and the imaginary component is the second one. This should be short and pretty, right? A prize will be awarded to the winner, as usual.

Also listed is the correct solution for last issue's APLsoup, submitted by Jan Gray and Calum T. Dalek. Sorry about the error!

```

▽ P←PRIME N
[1] P←(∑PεNo.×N←1+ι[N÷2])/P-1ιN
▽

```

```

▽ R←N PLOT D
[1] R←QΦ[1] Nρ *[(ι×/N)εN1Q[0.5+(D-(ρD)ρR)×(ρD)ρ(-1+N-φN)÷(1≠D)-R-1≠D]
▽

```

feedback

Dear mathNEWS,

Would you please look into the fate of the non-smokers math lounge. It appears to have vanished. If so, why? If not, then where did it go? Non-smokers have rights too! I realize that this is more serious (and boring) than what you usually do, but I feel it would be worth it. (Cough, choke, gasp!)

C.E. Campbell

mathNEWS investigated the situation; see the Notices elsewhere in this issue for more information.

Dear mathNEWS,

We were very disappointed that you had modified (perverted?) our solution for the APLsoup. The correct solution is listed below.

Keep up the good work!

Calum T. Dalek, Jan Gray

Our apologies for the mixup, but Watts' memory failed while typing in the functions last time. The correct listing is in this week's APLsoup column.

"I refuse to prove that I exist", says God, "for proof denies faith, and without faith I am nothing."

"But", says Man, "the Babel fish is a dead giveaway, isn't it? It could not have evolved by chance. It proves you exist, and so therefore by your own argument you don't. QED."

"Oh dear", says God, "I hadn't thought of that", and promptly vanishes in a puff of logic."

Hitchhiker's Guide to the Galaxy (Adams)

How to steal computer time

For amusement purposes only, we don't expect you to use these.

Part I--MicroNet

To use MicroNet illegally, simply follow some frosh to one of the printer terminals. In order to use the printer, he must type in both his password and ID. Some of the frosh have learned how to mute the terminal's echo (by depressing the HALF/FULL duplex button), but as yet very few know the trick (Also, the IBM PC printer terminal has no such key; frosh use "clear").

Of course, there is not much sense in trying to use MicroNet time through theft, since all of the features of the net except access to personal files (to read or write) are supported even without use of a password. Also, students who do have passwords have unlimited use of the system.

Part II--SCMS

It is much more difficult to obtain a password for CMS; it is an older system and the security routines are quite well developed. The password is automatically muted on logon, and no printer terminals exist per se. The best way to acquire passwords to which you are not entitled is to go to Needles Hall. In the basement, look at the sign-up sheets for co-op jobs. Each student must write his first two initials, his last name and his student ID. This nicely coincides with the ID's and passwords assigned for Physics 121, which are ID = name (up to eight characters, first two letters are initials) and password = student number. Of course, it is easy to change one's password with the PASSWORD command, but not many frosh know this.

One can also kidnap a prof, and traumatize selected parts of his brain (a pencil-type soldering iron works fine) and spare only the part of the cortex that contains his ID and password. Now, if you ask him a question, the only answer that can come to mind is the answer you wish to hear. (Of course, the main flaw in this plan is the identification of the particular area of the brain that contains the desired information. Additionally, the authorities frown upon selective mind-wipe, especially with one so highly placed as

a U of W professor). Once you know the professor's password, you can sign onto CMS and give your own userid practically unlimited access and credit; or, alternatively, you can use the prof's userid.

The easiest way of all to steal time is to volunteer to help mathNEWS, and use their computer time.

Next issue: How to manufacture dangerous chemicals in your own home.

blsccarc

Warning: Stealing computer time is a violation of the Criminal Code of Canada. Neither mathNEWS nor the author of this article advocates stealing passwords or computer time. Rather, we wish to point out the great lack of security in many systems, both with respect to the financial resources as well as the data stored on the computer.

Real Programmers - How They Program

Real Programmers never use coding sheets.

Real Programmers don't comment their code. If it was hard to write, it should be hard to understand.

Real Programmers don't write application programs; they program right down on the bare metal.

Real Programmers know that good human factors design requires only the application of common sense. Besides, no one cares about users. Programs are written for aesthetic beauty.

Real Programmers don't document. Documentation is for simps who can't read the listings or the object deck.

Real Programmers are secure enough to produce readable code, should they wish for some unknown reason to do so.

Real Programmers don't number paragraph names consecutively.

Real Programmers have read the standards manual, but won't admit it.

Opinion

"Come the revolution," the chevron staffer was preaching in their seminar series, "Everyone will have his own house and drive a Cadillac."

"But I don't want to drive a Cadillac!" yelled a voice from the back of the almost-empty room.

"Come the revolution," the chevric replied, "You will bloody well do as you're told!"

It seems everyone likes poking fun at the chevrics. Why can't we let these poor, deranged people live their own lives and preach their fallacies to the deaf ears of the general populace? Well, I guess they just seem so naive, thinking that everything that is wrong in this world is the fault of the Imperialists (with a capital 'I'), while all the good deeds were accomplished by the honorable chairman Enver Hoxha of Albania. So, what's so wonderful about Albania that the chevron writes wonderful series of journalism (no, make that drivel) about it?

Well, what do we know? We know there are some 2.5 million people there, in a country of 27 000 sq. kilometers, and it is located between Greece and Yugoslavia. Their per capita income was (are you ready for this?) \$650 in 1974 --- the newest information available to me. At the same time, Canadians had an income of some \$6000. Continuing on this same line, the country had 4000 televisions and 172 000 radios. This works out to a TV for every 625 people and a radio for every 15. Newspapers are not much more popular; each one must be shared by some 20 people, and cars are practically nonexistent, except of course for the Communist Party elite. So this is Utopia?

Albania used to be good buddies with the Russkies, until the latter took a softer stance after the death of Uncle Joe Stalin. China was their next ally, but then Mao died, and Albania broke off with them. Currently they have no allies, as nobody else is sufficiently pure ideologically. Out of necessity, however, they have to trade with Italy and Yugoslavia so they can get some industrial goods for their raw materials and fertilizer. The government was shaken by major purges (à la Stalin) between 1973 and 1976,

but this was nothing compared to the wholesale arrests and executions in the early fifties. However, there was nobody left to complain, so everybody is now happy with living in Albania. Sweet Home Albania...

Besides Albania, I've lately been really amazed by the imagination the chevrics use in thinking up their headlines. The last four issues includes ones like "No to Trudeau! No to the sham peace conference!" and "No to the Cruise! No to NATO!" They did use a bit of imagination in "NDP found in bed with Trudeau again," but I really must wonder if Pierre prefers the NDP to Maggie, even though the chevron's sources of information usually ARE reliable (chuckle chuckle, haw haw).

I think I will close the column with yet another story about the chevrics:

Little Johnny woke up at night to a huge thunderstorm. The windows were rattling and the lightnings kept lighting up the sky. Johnny wasn't feeling too secure so he went to get some comfort from mom & dad. His dad told him that every time somebody lied, God would strike a bit of thunder and lightning.

"But isn't everybody sleeping right now," little Johnny asks.

"Well," replies his father, "it looks like this is about the time they print the chevron."

Tom Watts

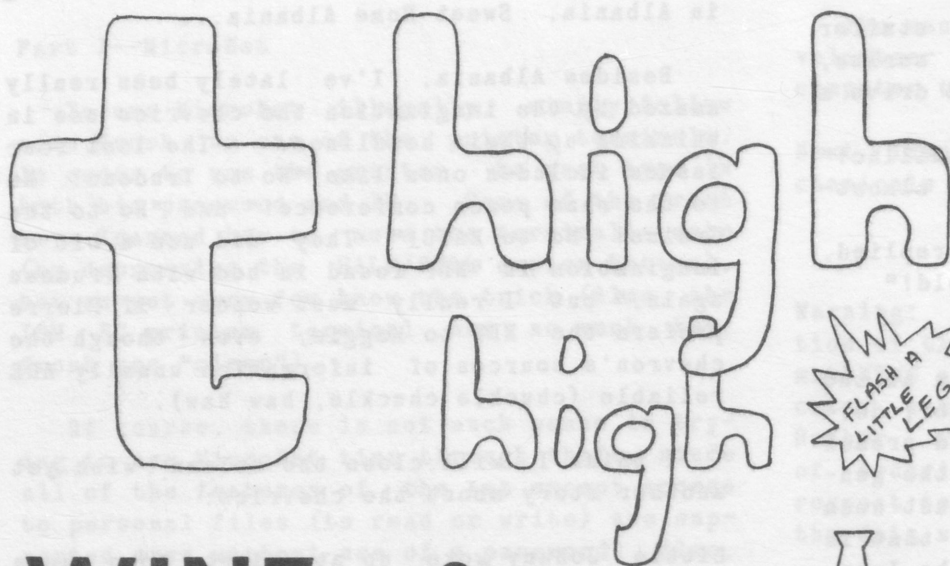
School Day

He arrives at ten to nine,
Locks his bike and waits in line,
Gets a coffee, adds some cream,
Feels the beck'ning Academe,
Enters class with minor clatter
(Half an hour late won't matter),
Takes some notes, draws a bit,
Yawns at this prerequisite,
Leaves the class before the end,
Spends an hour with a friend,
Skips a class, attends a few
(There wasn't that much else to do)
His final class at last arrives,
He scribbles sigma's, e's and fives,
Copies down the last equation,
Sees the next manipulation,
Rejects the writing marathon
And so, by three o'clock is gone.

Fraser Simpson

MATHSOC

Presents



WINE & CHEESE

Here's how it works:

TICKETS: \$3.50

DISCOUNT: 20 cents per inch above knee (skirts)

15 cents per inch above knee (shorts)

Minimum charge: \$1.50

DOMESTIC WINE: 50 cents a glass

IMPORTED WINE: \$1.00 per glass

BE BOLD!!!

WEAR A PINK TIE AND GET 2 FREE GLASSES!

SAT. NOV. 12 SCH 8:30 PM

MATH WEEK

NOV 15 - 18

- Tues** EUCHRE and MONOPOLY TOURNAMENTS
- Wed** PINK DAY FIELD DAYS
- Thurs** PAPER AIRPLANE CONTEST ALL NIGHT MOVIES
- Fri** AWARDS NIGHT CASINO NIGHT

FIND OUT ABOUT IT!

MATHSOC MC3038

Hah! Nobody has notice I've started this phenomenon (whatever) called the fantastic masthead. It's all hallow's eve tonite, which means its Monday instead of the trditional Tuesday when we put this rag together. Tom just caught me, and pointed out a typing mistake, but I don't care. I kinda miss all those x's on the masthead now that we don't use a typewriter. Speaking of type (clever, huh?), I'm really sorry for the printing of this issue. The editors (that's me and whathisname behind me(he just gave me hell saying I don't deserve to write the masthead cuz I wasn't here cuz I had a class (boy am I getting ahead of myself))) had a bad case of midtermitis this week so moved production night to Monday instead, but lo and behold our favorite laser printer was down. Oh well...but enough rambling. Tonite's crew was as follows; Dr. J (showing up (I warned him I would mention

him), Wross (fastest pasteup around), Stewart Melanson (cover), The Big B.(layout, pasteup), Fraser (same, algebra help), Tom Watts (supervising, printing, layout), blsccarc (picking up pizza and output), tom and me (typing and more typing), and finally special thanx (and past due) to Gary Beckenhauer (distribution of this rag). Part two of the credits is the actual contents and goes as follows: Ross Brown (burns), Fraser Simpson(courses,math,xword), grm (poll, richard tummers (watsfic), Steve Maulsby (platter), Sparky (hot/not), Stewart Melanson (hifi), blsccarc (comptime), and a whole bunch of feedback people. One final freeplug for our questionnaire; your reaction to this thing is all we have to base our success/ failure on: please fill it out. Well, that should be just about it- and only 2325!!!

Continued from page 5

How did the Romans measure distance? A Roman mile consisted of 1,000 double paces, or, in Latin words, *mille passuum*. Our word pace means the distance cover by each foot in succession, but the Latin word *passus* meant the distance between the point where the foot left the ground and the point where the same foot again came down in marching, or about 5 feet. Thus the Roman mile considerably shorter than our mile—probably about 1,620 yards as compared with 1,760 yards.

Does it remind you a bit of Trivial Pursuit? I'd like to give the entries explaining why there's a hole in the nib of a pen, and what the brown specks in china are, but I've run out of room. To keep you thinking, I'll leave you with the question "Why does a mattress have (leather) buttons?" I'll give the answer next issue.

In last issue's column, you were asked to work out the dates 1983 and 1066, given in hieroglyphic writing. You were also asked to identify the two errors in the Royal Court's accounts. The first was the addition of the apportionment of the beer; the total should have been 144. The second follows directly from that error; the balance of beer-jugs would then be 1 instead of 2.

by Fraser Simpson

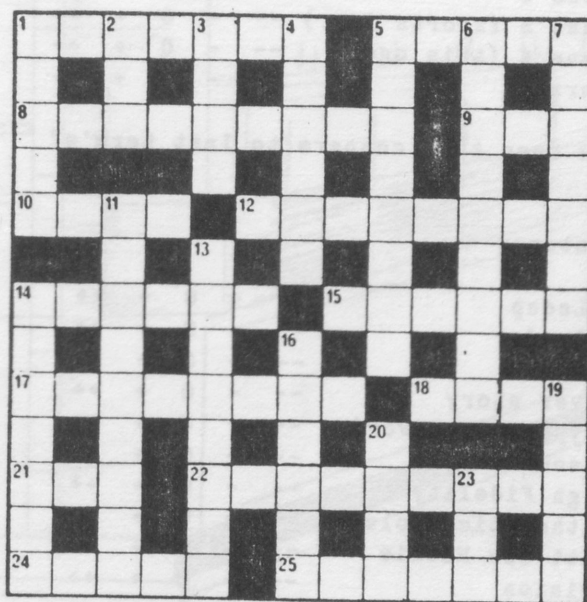
$dy/dx = 0$

1. Taken away, so changed houses again? (7)
5. The waiter will ask you to make arrangements. (5)
8. Rely on a new net for subordinate. (9)
9. Partly clasping a snake. (3)
10. Fixes tennis games. (4)
12. Wrinkles --- one hundred wrinkles. (8)
14. Trembling member of a religious society? (6)
15. Perhaps can use time to pay the bill. (6)
17. Approves of Paul's pad, perhaps. (8)
18. He used to lead Russia in Arts, perhaps. (4)
21. A number catch the wrong way. (3)
22. Refusals made by the photographer? (9)
24. Turns reddish-brown and loses a number of crusts. (5)
25. Scribbles a letter and moves slowly away. (7)

Cryptic Crossword

Solve this crossword as you would any other cryptic crossword. Solutions should be submitted to mathNEWS no later than November 12, 1983. A Math 83/84 T-shirt will be awarded to the winner.

Last week's winner was Kirk Hutchison, who can claim a Math 83/84 T-shirt from MathSoc. Correct (but unlucky) solutions were also submitted by David Cohen, Calum I. Dalek and Ken Sulston. Also, Janice Muezes has not yet claimed her prize for the crossword in issue 33:1.



$dx/dy = 0$

1. Curtailed desire, perhaps, to get a carnival feature. (5)
2. Returning a single pom-pom --- a bundle of yarn on a stick. (3)
3. Rather proud, we hear, to have a weathercock. (4)
4. Dismal organ in dry surroundings. (6)
5. Make the most of what you have? (8)
6. Limits of obsolete railways. (9)
7. Poster I designed will show the return of the fencer. (7)
11. The horse's harness and other nice things. (9)
13. Painter's confused, but applies a fresh coat. (8)
14. Twenty-five cents for three months of the year. (7)
16. A number will take a long time to get proverbs. (6)
19. Prickly plants that could cause sores! (5)
20. Common prison disturbance. (4)
23. Vowel starts a word that means 'promise'. (3)

Well, it's been a couple of terms since we last ran a poll in this rag, so what with the large volume of regular features we have we thought we might like to see how we're doing. While we wish to make this anonymous, the reader is encouraged to fill in his id number, because we will draw one lucky id number from all the responses, and the owner of this id number will be able to claim a free pizza. All scales are from -- to ++, with ++ being the highest rating.
id number _____

Overall Rating

issue 1	--	-	0	+	++
issue 2	--	-	0	+	++
issue 3 (sports int.)	--	-	0	+	++
issue 4 (this one)	--	-	0	+	++
overall	--	-	0	+	++

How does this compare to last term's?

Features

APLsoup	--	-	0	+	++
Calendar	--	-	0	+	++
Cover	--	-	0	+	++
Cover story	--	-	0	+	++
Cryptic Crossword	--	-	0	+	++
Elsewhen	--	-	0	+	++
High Fidelity	--	-	0	+	++
Mathematics Column	--	-	0	+	++
Matt the Mathie	--	-	0	+	++
Opinion	--	-	0	+	++
platter spatter	--	-	0	+	++
Real Programmers	--	-	0	+	++
SCuMSbag	--	-	0	+	++
This Week's Theorem	--	-	0	+	++
Watsfic	--	-	0	+	++

Any comments on our features?

Would you like to see more or less of the following?

News	--	-	0	+	++
Sports	--	-	0	+	++
Mathematics	--	-	0	+	++
Campus Events	--	-	0	+	++
Creative Writing	--	-	0	+	++
Politics (off campus)	--	-	0	+	++
Politics (on campus)	--	-	0	+	++

Any last words or final comments?

Please take the time to fill this out. We really do like to hear from you, especially if you have any favorite (or non-favorite) features. You might even get a free pizza for your trouble.

ElseWhen

mathNEWS 10 years ago

"Last Tuesday's (Oct. 2) meeting of the Mathematics Society was opened with a plea on the part of speaker Jim Langer that, for once, a formal meeting be held."

-(highlights of the budget...) Anti-Calendar-\$1500, Computer Science Club-\$100, mathNEWS-\$1500, Orientation-\$1000, Math week-ends-\$1200.

"Anyone interested might note that we still don't have L6 though I haven't heard of anyone giving up yet (or expecting it either for that matter...)."

"As you are undoubtedly aware the Honeywell died last week. The gory details go something like this: TSS crashed (nothing unusual there) and they rebooted, but in the meantime it seems they lost the entire CATALOG/FILE SYSTEM (and maybe the current version of the the Operating System too). It seems the reserved area on the disk that pointed to the FILE system was rather clobbered, and most of the files are the files that were in 2 weeks ago."

Want Ad Awards

The tradition is the each term mathNEWS will present awards to the best Math want ads, so here are our selections:

Most Jargon

Bank of Nova Scotia: "Work will be undertaken in an environment of ... close to 600 IMS, CICS and TSO terminals; in general using the VTAM and MSNF. TSO and VM/CMS will be used as tools. (Host environment includes 5 major IBM and Amdahl CPU's.)"

Hardware Award

Hudson's Bay Company: "Programming on ... Apple II, IBM Personal Computer and Commodore 64. Programming languages are Basic and some Assembler."

Vagueness Award

Petro Canada: "Our current development projects employ real-time database and distributed technology. Opportunities exist for a student in programming."