

Council Carries Curriculum Committee's Computer Course Changes

The Mathematics Faculty Council has approved the recommendations of the Curriculum Committee for the following new and revised courses.

REVISED course descriptions CS 340—Data Structures

The study of data structures in a language-independent setting. Levels of data description and their roles in design of data structures. The effects of secondary store. Introduction to the analysis of algorithms. Topics include: primitive data types; sequences; designing representation-independent data structures; tuples; arrays and tables; trees and

forests; sets.

Prerequisite: CS 240.

CS 342—Machine Structures

The intent is to give a basic understanding of what goes on inside a computer, of machine architecture, and of some fundamental operating system services. Topics include: introduction to an actual computer; representation of data; memory; central processor; addressing schemes; input/output; linking and loading.

Prerequisite: CS 240.

NEW courses

CS 442—Comparative Programming Languages

This course is designed to give

students a critical understanding of programming language concepts, and to provide them with an appreciation for the implications of various language-design decisions. Students also learn some fundamentals about language processors.

Prerequisites: CS 340, CS 342.

CS 448—Introduction to Database Management

The course introduces students to the techniques that have been developed for processing very large collections of data. The requirement that data be held on secondary storage (disks and tapes) has an enormous impact on the design of algorithms to access the data.

Prerequisites: CS 340, CS 342.

FRIDAY, NOVEMBER 19, 1976
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math NEWS

Blood Donor Clinic

The Red Cross Blood Donor Clinic will once again take place in the lounge, MC 3002, this month. The dates are Wednesday and Thursday, November 24 and 25.

You can donate between 10 a.m. and noon, or between 1:30 p.m. and 4 p.m.; the Red Cross advises you eat breakfast or lunch (respectively) beforehand, lest you possibly feel faint afterwards.

They'd like to have a thousand donors. It has become customary at these clinics to record how many from each faculty donate, and in the past the highest percentage turnout has usually been from Math (although HKLS have slipped in a few times). Let us extend our victory record in the blood bowl—get out on November 24 or 25 and *bleed for Math!*

T-Shirts are for sale in the Mathsoc office, MC 3038.

Cancellation

Due to lack of apathy, tomorrow's Apathy Club meeting has been cancelled. We found somebody who wanted to go to it.

PANDEMONIUM WEEK!

Friday, November 19

Broomball Tournament. *St. Clements Arena, 9 a.m. to 5 p.m.*

Mathsoc/JJBT Table Hockey Tournament. *75¢ non-refundable entry fee. All day, MC third-floor lounge.*

Wine & Cheese Parties. *8:30-12 p.m. in MC 5136 and HH 373/378. M/E/S/A \$1.00, others \$2.00.*



Saturday, November 20

Mathsoc/JJBT Table Hockey Finals. *9 a.m. to 4 p.m. in CC Great Hall.*

"Society Social" semi-formal with "Chelsea Morning". *At Valhalla Inn, Kitchener. Bar opens 6:30 p.m.; dinner at 7:30. M/E/S/A \$14.00/couple, others \$16.00/couple. Groups of more than two couples must make reservations at MC 3038.*

Prof Attacks Student

Integrated Studies student Jim Blackburn is considering pressing an assault charge against Dr. Doug Wahlstein, an Assistant Professor in Psychology. Wahlstein spat in Blackburn's face and threw a cup of hot chocolate at him, Tuesday evening outside the Integrated Studies student lounge.

Contest Results

The winners of the Special K and Big E(uler) math contests for undergraduates here, held November 8, have been announced.

The Big E was also won by Doug Stinson, who was also the first winner of the Special K in 1974. He was followed, in order, by Dave Wright, Matthew Smith, Rick Cameron, and Randy Morrison.

The Special K, which is only open to freshmen, was won by R. Gupta, followed by A. Owen, P. Latimer, O. Nierstrasz, and R. Leber. (Why K? For Murray Klamkin, who created the competition while he was a visiting professor here.)

The top three contestants in each competition were awarded prizes at Tuesday's Math Faculty Council meeting. The contestants in the E and K are also likely to write the continent-wide Putnam Mathematical Competition on December 4. UW is a past winner of this competition.

If card is lost, notify the library immediately to avoid fines incurred by

BURBOAF?

Lately, there's been a lot of work done on portable software. (For the uninitiated, if you have a program running on one computer, it is portable if you can take that program to another computer and get it running there with a minimum of effort.) On UNIX, there's been effort put into making C programs portable, and there's a Port group who are currently working on a portable operating system for small computers.

Plenty of people are working on portable software. However, there is someone who is pioneering a brand new field of portability: *Portable Documentation*. As far as I know, this is the first attempt to do serious research into this potentially important field. The last time I saw this person, he was hard at work on UNIX, but he took time to explain to me how he was trying to port one of UNIX's explain files down to the Honeywell. He said it was a very difficult task, but he was greatly aided by the *hsend* command which allows him to move files from UNIX to the Honeywell. Future tasks include: moving Honeywell explain files to the IBM/360, moving Debug explains to the Physics Nova, making an ANSI standard definition of PL/I comments so that inline PL/I documentation may be ported (note that we already have portable Fortran comment cards), and defining standard Punched Cards so that documentation punched out on one computer may be read in on another (H. Hollerith has suggested a standard).

The INTEGER_OF_THE_WEEK
this week is

6174

Besides being $2 \times 3 \times 3 \times 7 \times 7 \times 7$, 6174 has the following interesting property:

Consider the function F defined on the set of four-digit natural numbers whose digits are not all alike. If $A(x)$ is x with its digits rearranged in ascending order, and $D(x)$ is x with its digits rearranged in descending order, then $F(x) = D(x) - A(x)$. In APL this looks like this:

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▽ R←F X
[1] R←(10⊥R[▽R]) - 10⊥R[ΔR+(4ρ10)T X]
▽

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The property is that for any x in the domain described above, $F(F(F(F(F(F(x)))))) = 6174$, and $F(6174) = 6174$. For many x 's in the domain, F must be invoked even less times before 6174 is reached.

FEDERACTION

Some controversy has flared recently over the motion by Manny Brykman regarding the Federation Treasury Committee investigating Societies' financial records. While I cannot support his motion in its present form, I think there should be more open disclosure of financial records so the students don't get ripped off. Generally, Manny's motion was proposed in order for the Federation to aid the Societies in their record-keeping.

I want to apologize if Robert White took my comments wrongly at the last council meeting. I am not accusing him of mismanagement or embezzlement of Coffee and Donuts funds. It was just the fact that his stubborn nature against Manny's motion tends to give one the wrong idea. Apparently he is against public disclosure of the books of certain organizations, but that does not necessarily mean he is hiding any personal wrongdoing. You'll have to talk to him about it.

The Pandemonium Hack-of-the-Week is Johann George. Young Johann (he is only 17) came to this school at the age of 13. He is a hard-working member of the hack community. As well as taking 13 courses this term (he doesn't need to go to classes), Johann stays up late at night guarding the Mathsoc and CSC offices. Lately he has taken a job with the ever-famous Walter Banks and is also contributing material to BYTE magazine.

A new fledgling (that is the only word mathNEWS can print) thing (rather newspaper) has appeared on campus. While it has a fairly gross editorial policy, it has the right idea by cutting up both the Federation and the chevron. It has nominated C. mathNEWS for Vice-President on the Pornography Party ticket.

While I don't agree with Shane Roberts' political policies, I also don't feel that attacking him with a typewriter is the proper way to voice one's disagreement.

By the way, there is no truth to the rumor that the CIA, FBI, and the Pizza Police are looking for Gary Prudence.

JJ Long

Co-op Math Fed REPorts

In my first article, I was accused of not having any humour in my column. Since the editor is against any humour spelled that way, I will keep my sick humour to a minimum (*i.e.* where the first derivative equals zero and the second derivative is positive).

A great problem concerning co-op math students is the fact that they are unable to tie their ties properly. In an attempt to correct this problem, all 2A Teaching students are requested to attend a seminar on Monday, November 22, at 10:30 in the non-smoking side of the third-floor lounge. Students are asked to bring along their own ties, but towels and scarfs will be accepted.

On the Federation side of life, a few disturbing incidents have occurred. On Tuesday, November 16, Federation of Students president Shane Roberts went down into the chevron offices to take a typewriter to the Federation offices. Earlier in the day, I had talked to Shane and told him I needed a typewriter to work on an article I was writing for OFS about NSD.

Shane picked up the typewriter; three members of the chevron staff, Neil Docherty, Henry Hess, and Larry Hantant, attempted to stop him. During the scuffle which erupted, Roberts incurred many scrapes; one finger required 2 stitches. When Security arrived, Shane went to Health Services. Security went down and asked who owned the typewriter. The response was the chevron, which is in effect Federation property, and Security took the typewriter for evidence.

The "free" chevron, which says it's democratic, doesn't allow students who are not completely pro-free-chevron to write for the paper, doesn't allow students to attend meetings, and tries to stop the President from using a typewriter. Are these the type of people you want in your paper? Why not take a minute and tell your rep on Federation how you feel about this? I am usually found in the third-floor lounge (non-smoking side), and can be reached via demcdougall on TSS mail.

I would like to thank my press secretary Murray, who never showed up at the right time, and Sam H. for notifying me about his issues of mathNEWS.

Doug McDougall
Co-op Math

More Club Mail

To K-Airless,
c/o mathNEWS:

In regards to your formation of the Procrastination Club, I have a friend who didn't know whether or not to join and he kept putting off signing up, so I'm

forwarding his name so if you ever decide to make up a list then if you ever decide to put his name on it then you will have it. Okay his name is Doug. Are you going to decide to have an executive? If you are, Doug hasn't decided yet whether or not to run for President or for Vice-President or for Treasurer or for Secretary or not at all.

jbdoherty

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mathNEWS will print your ads free of charge. Just jot them down on a piece of paper and put it in our mailbox on the third floor across from the C&D lounge, or take it to Mathsoc and have them put it in our mail slot, or put it in the mail addressed to mathNEWS, MC 3038, or send them in the mail subsystem on TSS to userid mathNEWS.

For sale: One panasonic AM/FM record-player/tape(8-track)/radio set including two speakers. Asking for \$100.00. Phone Gene at 884-4851 after 6:00 p.m.

Anyone who is going to be working in Scarborough this coming workterm, and is looking for a place to stay, or has a place to stay, please contact glee via TSS mail or call 745-4354.

Help wanted: Slave(s), no experience necessary. Successful applicant(s) must be female, intelligent, good-looking, obedient, quiet, and willing to do all duties of a housewife. Pay negotiable, fringe benefits. Contact userid mjmckenna via TSS mail or call 885-4025 and ask for Don or Bill or Hugh or Mike to arrange an appointment for interview if interested. No libbers need apply!

For sale: New and used variables. We have in stock a large selection of new and used variables in A1 condition, including all domestic models (x 's, y 's, and z 's) and many of the popular imports as well (α 's, β 's, and γ 's). We also have a limited supply of important constants for sale (such as e , π , and several square and cube roots) in your choice of 4, 6, or 8 decimal places. All sales are covered by our exclusive 2-term-or-2000-calculation warranty, and easy financing is available. For best selection, act now! Contact Harry's Variable Sales via TSS mail.

For rent in Toronto: Spacious, partially furnished 3-bedroom apartment. Yonge-Eglinton area. Apartment is above tailor's shop, so no other tenants to worry about. Loblaws and parking lot next door. Laundromat 1 block away. All types of shops close. Rent \$330/month—utilities included. Call Dave or Marilyn at 1-416-485-8573 or, in town, John at 745-2027.

Wanted: An undergraduate student for 1/4-time job as research assistant, December 1, 1976 through April 30, 1977. Possibility of full-time job next summer. 1/4-time salary: \$150/month plus benefits. The main qualification is an aptitude for and enjoyment of detail work. No particular background in mathematics or statistics is necessary. Call M. Thompson, MC 6094.

Percival III: Sorry I didn't get a chance to "talk" to you on Monday, November 8, but I did manage to "talk" to some of your "friends" who had the guts to show up, not like some people I have heard of; just be sure to give them my regards... when they regain consciousness. Fred L. E. Fourreur

For sale: Stereo equipment. *Receiver:* Pioneer SX-990. 2 years old. 28 watts RMS/channel. \$175. *Turntable:* DUAL 1219. 2 years old. Semi-automatic. Idler arm. \$125. *Speakers:* 2 Advent Utilities. 2 years old. 8-inch woofers. \$200 for the pair. *Cassette deck:* TEAC 350. 1 1/2 years old. 2 VU meters. Dolby. \$250. *Package deal:* \$700. Call John at 745-2027 or ask for JD in Mathsoc office, MC 3038.

Congratulations to J. J. and Heather. Best wishes for a long and fruitful relationship. Keep them kids coming! Mathsoc *et al.*

Wanted (desperately): 70 co-op jobs for first-year C.A. students, preferably pertaining to figures. (signed) Too picky.

For Sale: One pair of Lange Banshee Competition skis. 195 cm. Used one season. \$120 (negotiable). Call David Sudbury, Village 1, South 1; 884-9557.

Wanted: Humorous ad to place in mathNEWS. No inside jokes please. Send to John Doe, 123 No St., Anytown.

Video Art, and Carols

The University of Waterloo Art Gallery (in the Modern Languages Building—open 9 a.m. to 4 p.m. weekdays, 2 to 5 p.m. Sundays, closed Saturdays, free) will have an exhibition of video art from November 22 to 28. Jean-Pierre Boyer, Colin Campbell, Marty Dunn, Ed Fitzgerald, Michael Hayden, Winston McNamee, Al Razutis, Alex Salter, Lisa Steele, John Watt, and Jane Wright are the artists.

On November 22 from noon to 1 p.m. there will be an opportunity to meet Winston McNamee in the Gallery; he will also give a lecture-demonstration from 1:30 to 2:30, and will be in the Gallery again from 7:30 to 9:30 p.m.

The UW Arts Centre presents the twelfth annual Carol Fantasy on November 26 and 27 in the Humanities Theater. The Creative Arts Board sponsors the event, which consists of Christmas and other well-loved music by Beethoven, Bach, Hayden, Handel, and Vivaldi, directed by Alfred Kunz, and introduces a new carol by Kunz and Jane Reaney. For further information call extension 2126.

Admission is \$2.50, students and seniors \$1.50. Tickets at the main box office, ML 254.

An Open Letter

To Mr. S. Roberts,
President, Federation of Students.

Dear Sir,

Due to the fact that the present occupiers of the chevron office have made no attempt to publish the chevron after the publication schedule was resumed a week ago Sunday, to the fact that the office space involved is leased by the Federation of Students, to the fact that the present occupiers are not members of a recognized student organization and have never been authorized to use the office by the Federation, and to the fact that these persons have used this office space, and supplies owned by the Federation to publish an unauthorized newspaper known as the free chevron, I would request that these trespassers be evicted at once from the office space involved, and that the Federation find an editor and staff to publish the chevron.

D. M.S. Harrison

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J. J. Long Retorts

In response to the need to highlight Fed Follies '76, showing the gradual transition from the sublime to the ridiculous, the Sci-Soc News was preparing a new series: "The Fed_Nurd_of_the_Fortnight" (since we are a bi-weekly).

The editorial staff voted on the matter and our selection was the regular math rupture, J. J. Long. The competition was stiff, but J. J. won by a nose.

J. J. has garnered this honor because of his peerless performance on council. In addition to taking away the pub's innovative name, "The Orange Bombshelter", and then not having something suitable to replace it with, thereby creating the "pub with no name", J. J. has, with great consistency, put his foot in his mouth two at a time. His prize-winning performance was for accusing the widely-acclaimed co-op math rep and man-of-great-stature/honesty/integrity R. A. G. White of fiscal mismanagement or the equivalent.

The Sci-Soc News ran out of room in issue 6 and was not able to run the "flagship" of this new series; maybe next time we'll see if any one member of the Feds can win this coveted honor twice in a row. It's only second to the titles "fascist" and "yoyo".

John L. Lee
Editor, Sci-Soc News
John L. Lee
News Director
John L. Lee
Production Manager
John L. Lee
Ad Manager
John L. Lee
Graphics Co-ordinator
John L. Lee
Quartermaster

P.S.: The final vote was 3-2-1, carried.

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Return of the Colum

We all rejoice at the triumphant return of the writer of literary masterpieces, the one and (hopefully) only, incomparable, (or was that *incomprehensible?*), surely the last \$ STEVE \$.

Hi there again, I sure missed you during my rather extended leave of non-presence from this most honorable publication. As fate may have it, I only missed two issues, but there may be a few slight differences in my writing now, as opposed to what it was earlier in the history of mankind. I seem to remember that *everyone* was opposed to my writings at that time. Be that as it may. The largest difference in style that you will notice is that I seem to be using the word I where I would have said we previously. This is because I have grown to realize that it is foolish and juvenile to always call yourself we if you are only one person. Or, as one observer said, if the chevron can do it so can I.

Another pretty neat thing that you will notice is that I have stopped getting upset at people who pretend that I know nothing just so that they can send intelligent-looking letters in to feedback. There is, after all, no point in letting a few subordinate creatures get the best of me, and I hereby refuse to let that happen ever again. This applies particularly to the deviates who always complain about my taste in music. I am not a philosopher and therefore do not feel that I have to justify my existence on this planet, but since we seem to be talking about music, I will tell you a little bit about my musical background.

I have been taught enough music theory by a very knowledgable classical music teacher to allow me to feel reasonably certain that I can identify certain musical structures by hearing them, and that I can tell you who is doing what, when. Also, I have played guitar seriously for at least ten years, as well as piano occasionally over the last five, and by I now I am also reasonably sure that I can make the not-so-subtle distinction between genius and mediocrity. Thirdly, I have heard enough Good Music to decide what fits in with that general category. So when I write, for example, that *Deep Cuts* is not as impressive an album as *Hero and Heroine*, it means that if you really liked *Hero and Heroine* then you probably won't like *Deep Cuts* as much. Granted it's all relative, and dependent upon personal taste, but if I see a new album, I generally like to know what it sounds like before I buy it. What it all boils down to is this: I might not agree with you, but don't say I didn't warn you.

I must also apologize for the typos in the last colum I wrote way back last month. Of special importance is this: the guy who played keyboards for Strawbs was named John *Hawken*, not Hawkes. A great "sorry" to those of you who were offended, and if you didn't know the difference, then this proves once and for all that you can't believe everything you read.

Oh, yes, there are a few other things I wanted to talk about. The first and most likely to be important is the following (that means the next bit, the one *immediately following*, not something next week). (Must apologize for that last parenthetic addition—you are probably not *all* illiterate.) At any rate, the important thing is that I found, in my left ear, the following statement from the general membership of the Flat Earth Society. I will now reproduce it in its entirety.

To: All People Who Were Present At The Class In Which Professor William J. Gilbert Discussed Mathematical Induction: We the General Membership (G.M.) of the Flat Earth Society (F.E.S.) do hereby proclaim that we do not believe, refuse to believe, and cannot be convinced of the following so-called axioms:

That the world is round, spherical, or in fact, anything but two-dimensional.

That the Principle of Mathematical Induction (P.o.M.I.) is a valid proposition.

We offer the following proof: We accept the proposition that the P.o.M.I. will work for relatively small numbers, say those less than 1,000,000. However, this includes only 1% of the cases involved in examining the infinite set of Positive Integers (P.I.), sometimes called Natural Numbers (N.N.), which, as we all know, or can intuitively guess, is the set $P = \{1.0, 2.0, 3.0, 4.0, \dots, 100,000,000.0\}$. surely it is obvious that 100,000,000 is the largest number; no animate person can count higher than that. Our point is that as it is virtually (cf. virtual storage) impossible to work with numbers of the magnitude of 100,000,000, especially in the summation of a series with that many terms, then it is impossible to predict what will happen when numbers get that big. In fact, as the numbers get larger, Einstein's Theory of Relativity might suddenly go into effect, and we wouldn't even be able to tell time properly. Therefore, by the use of Methods of the Most Formal Order (M.o.t.M.F.O.), we have formally proven that the P.o.M.I. is not valid, and that it is probably a communist plot to be implemented by the red-hippy-pinko-fags that Archie Bunker (who is quite liberal himself, compared to us) is always talking about.

And that was my message from the F.E.S., who are no doubt very concerned that the level of education in the universities across the world should not drop.

My second comment is about a letter implying that I had stolen the idea for my name from *hugh*. I hasten to assure you that this is not the case. I did not even know of the existence of a *hugh* until I had written two or three colums. But if you are worried about it, you can always pretend the dollar-signs are located somewhere else, as in \$STEVE\$, or whatever you want to imagine. Actually, after reading one of the letters in last week's issue, I seriously considered changing my name to VVVVVVVvV, but that would probably be cheating too.

From the looks of it, this is going to be a rather lengthy article, so instead of telling you about the five albums that I bought last week, three of which are very good, I think I'll sign my name and then I'll go back and fix the mistakes. Or as one observer remarked, if the quality went in before the name went on, I'd be anonymous.

C-YA nekst weak.

\$ STEVE \$

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Unsolicited Compliments!

Dear mathNEWS,

You are terrific! mathNEWS is the best, most interesting, liveliest paper on campus—maybe in the whole province. I even love all that math stuff I don't understand. May you always publish.

schang
HKLS

Dear mathNEWS,

Despite (or perhaps because of) Burloaf's absence, this week's mathNEWS was one of the best I've seen in the past 4 terms. Special mention goes to Bren Rhoquar for his/her/their comments on CS 150, which were both outrageously funny and dismayingly accurate. Two weeks in that class, and even (ugh) COBOL starts to look good.

a CS 150 student

It was an Editorial "We"

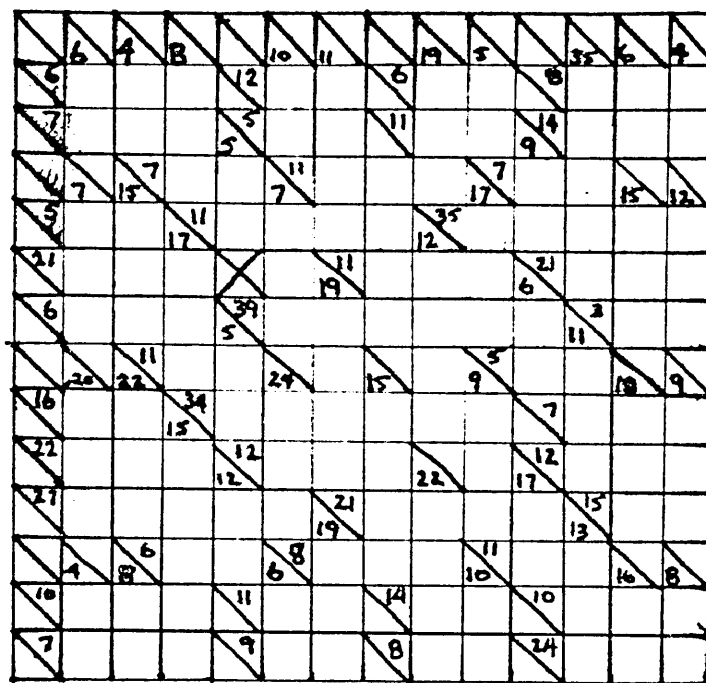
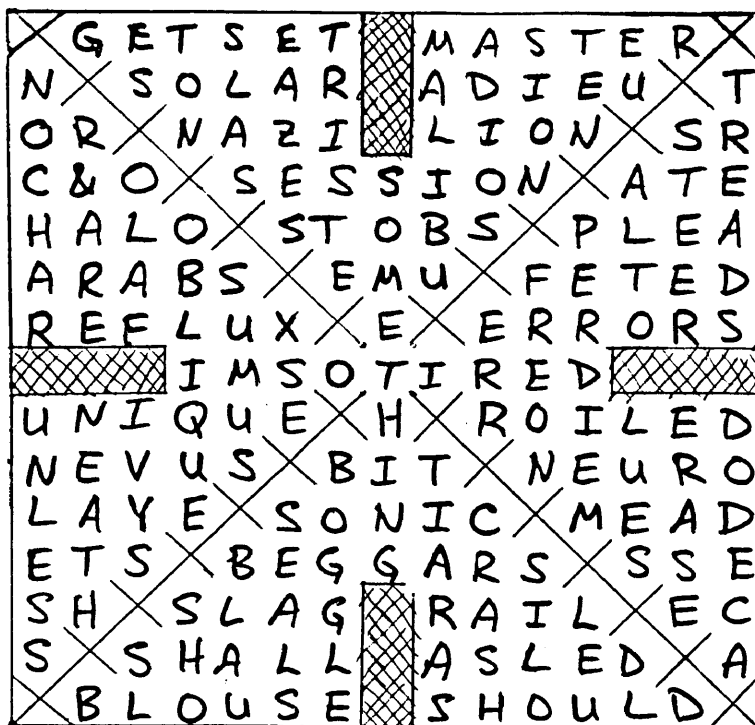
Dear Mr. Brader,

You err in stating that "we" goofed in confusing Ecclesiastes and Ecclesiasticus. I took great pains to inform you which was the Apocryphal book, and which was the book found in the Old Testament. The error was your fault, and yours alone. Perhaps, if you had been a little less intent on "correcting" spelling non-errors by other people, you would have been able to find and correct your own mistakes.

Owen Leibman



mathNEWS welcomes your criticisms, comments, suggestions, etc. All letters should be signed, but if requested, a pen name will be used. Put your Feedback articles in our mailbox on the third floor outside the lounge, or mail it to us on TSS to userid mathNEWS, or take it to MC 3038 and have it put in our mail slot, or put it in the mail addressed to mathNEWS, MC 3038.



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043

0123456789

← Gridcomment

Canada 10

Remote Trob Entry

We were surprised to see that there were no solutions this week! After lowering our standards, it seems that, much to our amazement, people were absolutely confused by common words and everyday meanings for these (within reason). If you did notice the *Gridword* has a high range of subject matter from history to science. A better try is expected next time (as per some people who feel that they can complain without giving it even a fair try—*arwhite* at least). *Gridwords* in the future written by us will be even easier to do so that hopefully more people will try them.

By the way, recent winner "4F" turned out to be **Kathy-X**, alias Kathy Wilson.

In this week's Grid-Sum, each "word" consists of a string of distinct nonzero digits—one per square—which add to a given sum.

Each "clue" is the sum which each string must add up to. These sums are incorporated into the slashed squares. The number *below* a slash is the sum of all the blank squares below it, down to the bottom or to the next slashed square. The number to the *right* of a slash is the sum of all the blank squares to its right, to the edge or to the next slashed square.

We repeat: each string is composed only of the digits 1 to 9, and no digit can appear more than once in a given string. The puzzle has a unique solution, as far as I know.

This type of puzzle isn't so hard once you get the hang of it. While there may be a dozen different combinations that will fit in a given string, all but one of them will be eliminated by the way they affect cross or parallel strings. Start at the edges and work in. If you get stuck, start somewhere else and work toward that point.

Comments, encouragement, curses, etc. can be sent to the author, **nwwitchlow**, via TSS mail.

At the end of the last winter term, notice was given of conditions under which **mathNEWS** would no longer publish Trob articles. A feeble(-minded) attempt was made to fulfill these conditions but was not successful. No such notice appeared last term; the Trob simply disappeared into the not-particularly-clear air to the southeast.

Coincidentally, this disappearance came shortly after the Math 130 final exam. Professor Schellenberg is to be congratulated for the best exam question of quite possibly the decade:

Given: The integral for the area of a curve in polar coordinates. (I won't overwork the Photon* by reproducing it here, but it was on the exam.)

Required: *Without* using this integral, prove that the area of a sector of angle θ and radius r is $\frac{1}{2}r^2\theta$.

Solutions: Two solutions follow. I was only able to find one person with *any* solution on the exam.

□ Divide the sector into n smaller sectors. Each of these, as n gets very large, approaches a right triangle of perpendicular sides r and $\theta r/n$. The area of each is thus $r^2\theta/2n$, and since there are n of them, letting $n \rightarrow \infty$, the total area is $\frac{1}{2}r^2\theta$.

□ A full circle is a sector of angle 2π ; its area is πr^2 . Therefore the area of a sector of angle θ is $(\theta/2\pi)\pi r^2$. This is also $\frac{1}{2}r^2\theta$.

I have never supported militancy in any cause, and do not intend to, but I realized something recently which I think many people do not.

Much concern is being expressed over apartheid thousands of miles away. What is not realized is that, considerably closer to home, native Canadians, simply because of the part of the country where they live, are denied the right to elect representative, responsible governments, a right we take too much for granted. Recognition of these people's "nation"hood would be a divisive and serious mistake, but hardly more so that denying full citizenship to people with a better claim to it than anyone in Ottawa.

And this unpaid semi-political announcement was not brought to you by the Anti-Indian Alliance, the Anti-Inuit Alliance, the Anti-Insect Alliance, the Anti-IBM Alliance, the Anti-In-jineering Alliance, the Anti-Intstud Alliance, the Anti-Idi Alliance, the Anti-Iceland Alliance, or the Anti-Industry Alliance.

Our algorithm of the week is a contest: write a minimal (please!) APL one-liner to remove duplicated lines from a character matrix. Alternatively, prove that it cannot be done. Prize: A discount on a limited number of used \$1 bills.

Letters to the Trob: Please! (Not even the perennial peppered zit wrote. Maybe it's my breath...)

**I object to this slur upon my abilities!*

The Photon

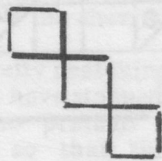
Kiddie Korner

Hi Kids!

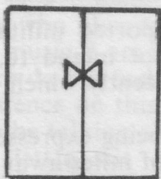
It appears that our warnings to the Gazette and Burloaf had some effect. Last week the Gazette discontinued their Guess-the-Picture Quiz, obviously buckling under our demands. As for Burloaf, we practically squeezed him right off the page. There was room only for his title. Actually, we were only kidding, guys. After all, imitation is the highest form of flattery.

We were rather disappointed with the response to our progressions and puzzle in last week's column. Perhaps this is due to post-midterm blues. However, here are the answers.

First the solution to the matchstick puzzle. The only person to submit a correct answer was kwstreet, whose solution looked like this...



In this issue, we also have a couple of doodles for you since they are usually quite popular. What is this?

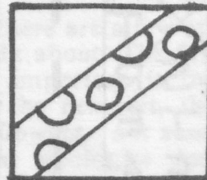


Syllogism

He who drinks
Gets drunk;
He who gets drunk
goes to sleep;
He who goes to sleep
does not sin;
He who does not sin
goes to Heaven;
So let's all drink and
go to Heaven.

Irish Wit

Another nice (but easy) doodle is this one...



Incidentally, we would like to thank Barry Lerman for suggesting the puzzle in the first place.

As for the progressions, dbmounce was the only person to give us a solution to the first one. His solution was DRMFSLTD for Do, Re, Me, Fa, etc. No one sent in an answer for the second one. It looks like we stumped everyone! As a reward, we receive one free coffee and donut at the C&D stand, compliments of Sam'n'Tak. Getting back to the progression, the solution is AEFHIKLMNTVWXYZ. You will note that this is a sequence of letters composed entirely of straight lines.

For this week's progressions, here is a real toughie. What comes after BMOVC? (Hint: Take a chance with this one.) Our second progression is also a hard one. In fact the first person to send us a mail message with the correct answer will receive a free coffee & donut or cash equivalent. For those of you without a userid: beg, borrow or steal one. The sequence is KATNM. No hint.

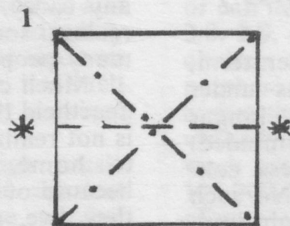
This week we feature the return of our Tak'n'Sammy's Origami. On Monday, many of you might have noticed some people running around the math lounge with buckets of water in vain attempts to douse the n-jineers. They probably would have been more successful had they used the water-bomb for which we rather belatedly provide instructions. Remember to fold forward on dots and dashes and fold back on dashes. Go to it, folks!

Since he bugged us so much to put the cube (water-bomb) in our column, we're not going to print Glen Dougan's name.

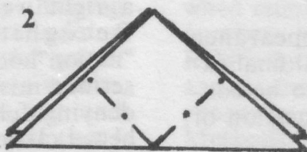
We're sure you all followed the Québec election closely and witnessed the Parti Québécois' victory. In honor of this momentous occasion, we announce our NAME_THE_COUNTRY contest. All you have to do is send us a name for the new country formed when Québec secedes from our glorious Dominion.

That's about it for this week folks. Hope you all had fun during this past M/E/S/A week. Don't forget the Mathsoc/JJBT hockey tournament. If you're reading this in the math lounge around 10:00 on Friday, come on over to cheer on Sam in the singles competition. If he wins, we'll print his name in our column next week. Remember to send all correspondence to rhtakashima or sceffer by TSS mail. See you next week.

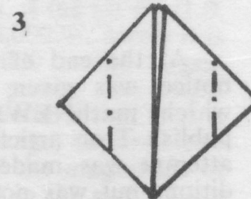
Sam'n'Tak



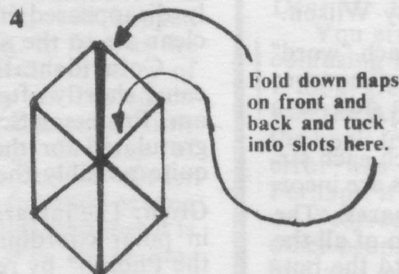
1
Unfold after each fold. Then pull the stars together.



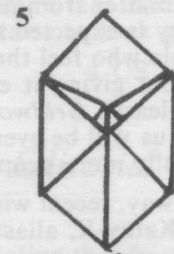
2
Fold up on front and back



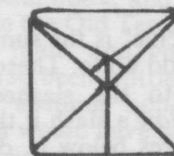
3
Fold over on front and back.



4
Fold down flaps on front and back and tuck into slots here.



5
Blow in here to inflate.



6
Voilà!

It is almost 08:30 Wednesday morning, and this is the masthead of issue XII/8. as usual Graphic Services will attempt to turn these masters into 1200 copies by Friday morning--with twice as long as we gave them last week and .6 times as many pages, they shouldn't have much

trouble! Anyway, we're financed by but independent of Mathsoc, and this time our all-volunteer staff was: MARK S BRADER as editor, ERIC K SIEGERMAN until 04:00 and RAY D BUTTERWORTHY thereafter, generally helpful, JOHANN GEORGE providing sympathy, PERRY DOMZELLA (you were right about your drafting, Perry), J J LONG (that is as much as mathNEWS can print), DAVE BUCKINGHAM, ghostly BURLOAF, co-operative DOUG E McDUGALL (mN gets rid of one McDougall and promptly finds itself with another one--is there a message there?), RABID RABBIT with some unusable ones and some unidentifiable ones, and credit to R A G WHITE via JOHN ELLIS for the late flash. And, o remote D W GILLETT, why try to fool us by combining a Toronto postmark with a Niagara Falls return address? We know you're hiding in Argentina. Subscription price for the winter term, to be announced. Next issue to be produced Tuesday November 23 beginning 7 p.m. in MC 3011. I refuse to mention that LEVESQUE DEFEATS BOURASSA even if it would help to fill up this silly space. Maddog: where are you? Sorry about the Scisoc thing, but really, this is mathNEWS, and besides, it would have taken us over 6 pages, and besides, I forgot. Maybe next week. Want to be editor next week? ...Anybody: Want to be staff next week? Come on out and volunteer sometime...

Antical Is Coming!

FED. PREZ ASSAULTED BY "FREE CHEVRON" GOONS

On Tuesday November 16, Shane Roberts was allegedly assaulted by Docherty, (former paid staff of the Chevron) and Hess. Doug Thompson was allegedly assaulted by Docherty. Jim Blackburn, an Integrated Studies student, was also allegedly assaulted by Doug Walstein (a university professor, associated with the A.I.A.).

At 1:30 pm. Wednesday November 17 Roberts, Thompson and Blackburn went down to the Justice of the Peace to swear out warrants against the previously mentioned individuals. An injunction to keep these people off the premises of the Federation and the Chevron is being sought.

For further details, see articles on page 1 and Doug McDougall's column on page 2.

The new (real) Chevron will be published Monday. Get a copy and see what you think of the new look.



Left to Right: Hannant, Shane, Docherty

Kiddie Korner



Left to Right: Shane, Docherty, Hannant



Docherty and Hannant questioned by security.