


Notes: BBS stands for Brown Bag Seminar
These are held in Nit3001 12-1 pm. Bring your lunch!

## Math Meeting

On Tuesday, November 15, 1983, a meeting was held in MC2065 for math concerned about the restrictions and changes to the course requirements in the Faculty, and especially in the Computer Science department. The lecture hall was jammed by some 270 people, as well as several representatives of the Faculty and Steve Sutherland, representing the Federation of Students.

The meeting was chaired by Kelly Masterson, vice-president of the Mathematics Society. He opened the meeting, and subsequently Mr. S made a short introductory speech regarding academic structure, and avenues available to students for voicing their opinions on Faculty and departmental policies. Mr. Sutherland emphasized the fact that it is possible for the students to have an effect on the decisions made by the Faculty.

The question period ensued, with numerous students voicing their questions and concerns. The following will attempt to summarize the main items raised during the discussion.

One of the main points was the fact that many second and higher year courses are only available to Honours CS students. The main problem with this was caused by the fact that the Faculty had previously implied to entering students that these courses would also be available to those in the General program, causing many of the students to drop down from Honours. These students are now faced with numerous problems: they can not get these courses should they stay in the General program, but should they attempt to switch back into Honours, they will need to make up several courses, and of ten this will throw them into the 'wrong' stream to be able to take the desired CS courses. Many students are now doing a so-called ' $4 \mathrm{C}^{\prime}$ term in order to be able to take the 4th year CS courses. Prof. Lawson (of the CS department) defended the department's position by bringing up the large decreases in government support in Ontario. For example, Alberta supports its universities by $\$ 2500$ per student more than Ontario. Mr . S explained that the Ontario Federation of Students was doing considerable work on the topic.

Another problem brought up was that of the (now) 2A students. When they were admitted in the fall of '82, they were only told that they would need to maintain an average of about $65 \%$ in order to be admitted into CS. However, in February of this year, they were told of the new restrictions, which required somewhat better marks. The general feeling amongst the students was that the cutoff was about $75 \%$, and that many people slightly below that were not allowed into CS.

Prof. Lawson, however, corrected this picture somewhat, stating that the cutoff began at the $74 \%$ level, and extended down to about $70 \%$, much depending on the individual student. mathNEWS subsequently found out that of the some $800 \mathrm{stu}-$ dents entering Math in the fall of '82, 450 applied for CS. Of these, 200 had averages above $75 \%$ and were automatically admitted. In addition, some 100 students having averages between $70 \%$ and $75 \%$ were admitted based on both their marks and the difficulty of their courses. Of the 150 not admitted, close to 100 had either averages below $65 \%$ (of which limit they were informed prior to admission) or were missing one of the required 12 first-year credits. (Please note that the above numbers are only approximations and not exact figures.)

The other complaint the 2A students had was the timing of the letters sent out to those not accepted into CS. According to the students, these were not mailed out until the middle of July, causing problems for people who wished to consider other alternatives should they not be admitted into Computer Science. Prof. Lawson said that in the future the letters would be sent at the earliest possible date.

Mr. Sutherland also questioned the students regarding the several topics of interest, with a show of hands to indicate (lack of) support for various items. Many people felt that they were able to handle more than two CS courses in a term, but most people did not have an opinion on this question. However, the proposition that the University calendar include the professors' names along with the course descriptions received overwhelming support of the students, as did the proposal that students be allowed to see their marked finals, even though only after paying an administrative fee. Such a system, Mr. Sutherland told the students, is in effect at the University of Toronto.

One of the topics not brought up at the meeting was the possibility of a Quality of Education Fund. This is in effect in engineering at University of Toronto, and was narrowly rejected by the engineering faculty at Waterloo. Such a fund, if approved by the students, would provide the faculty with greater resources for hiring professors and/or purchasing new equipment. It would not, however, increase the availability of quality teaching staff on the job market, which has been another factor in the professor shortages in the past.

The Mathematics Society has pledged to follow up these concerns, and all students are encouraged to bring their opinions to the MathSoc office, MC3038. The office is open at least from 9:30 am to $3: 30 \mathrm{pm}$, and usually much longer.

## The Baby Boomers Are Here!

No, I don't mean people born in the late 1940's are just arriving here; rather, copies of the Baby Boomer edition of Trivial Pursuit are now available.

The Baby Boomer edition is available in two ways: as a set of card decks for those who already own a Master Game with the Genus Edition, or as a Master Game with Baby Boomer cards instead of Genus cards. Both come with a Trivial Pursuit Code Card, which lists the colours and categories for each current edition of cards available, to facilitate multi-edition play (more on that later).

The Baby Boomer edition contains 1000 ques-tion-and-answer cards containing questions for events from the late 1940 's to 1983. The six categories in the Baby Boomer edition are Television, Stage and Screen, Nightly News, Publishing, Lives and Times, and RPM. The Televison category deals with the realm of the boob tube, past and present. Stage and Screen is concerned with movies, theatre, comedy acts, concerts and stage nicknames. Nightly News deals with the details of history-making events around the world since World War II. Books, magazines, cartoons, comic strips and newspapers are covered in the Publishing category. Lives and Times concerns itself with the fads, products, issues and ideas of the past 35 or so years. The RPM category embraces song titles, lyrics, albums, performers, group makeup and names. Overall, it provides a good cross-section of trivia from the era of the Baby Boomers. Some questions from the Baby Boomer edition are listed below.

I found the Baby Boomer questions to be a lot more difficult than the ones in the Genus edition. (One 16-player game at Grebel took over two hours to determine a winner.) Since the questions are from the 1940's right up to early this year, it is generally easy to identify with most of the things the questions deal with. The older one is, the more one can answer.

Play proceeds as usual in Trivial Pursuit. However, the hints card mentions that multi-edition play is a possibility, and suggests that, if desired, a person landing on a green space could choose the edition and thus the category the question comes from (Science and Nature from Genus, Production from Silver Screen, Baseball from All-Star Sports, Lives and Times from Baby Boomer). This allows for a person to completely avoid their troublesome categories in multi-edition play (useful, until it comes time to answer a game-winning question). Since this is a rather cheap way of collecting wedges, I propose the following two variations for multi-edition play.

Variation 1. Take one box of cards from each edition in use. Questions are then chosen from the boxes in a rotation specified at the start of the game. The game-winning question may come from any category in any edition, which is, as usual, chosen by consensus of the non-threatening-to-win-on-this-question players.

Variation 2. Use one box of cards from each edition. On each turn, two dice are rolled (a four-sided die will do nicely for the second die in a four-edition game; otherwise use a coloured sixsided die as the second one). The first die, as usual, determines how far the player moves, but the second die determines the card deck the question comes from. The assignment of values of the second die to the card decks is arbitrary, but must be decided upon at the beginning of the game. A thought might be to have one value of the second die be a "wild-card", where the player chooses the box the question is drawn from.

Whatever you do with your editions of Trivial Pursuit, remember what Richard Nixon, whether he meant to or not, told us all: "Save yourself for the big decision. Don't allow your mind to be cluttered with the trivia."

## dwarf

## Typical Baby Boomer Edition Questions

Two questions from each of the six categories in the Baby Boomer edition are printed here. Answers appear elsewhere (elsewhen?) in this issue.

## Television

1. Whose vault did the password "A fool and his money are soon parted" give access to?
2. What show did Neil Simon once dream up wacky stunts for?

## Stage and Screen

1. What film's football game ended with the good guys the winners by a score of $36-35$ ?
2. What folk singer played Carnegie Hall to 53 people in 1961?

## Nightly News

1. What did a judge issue a restraining order stopping Progressive magazine from publishing the blueprints for?
2. Who did Rosemary Woods call "the most honorable American this country has ever known"?

## Publishing

1. What commercial artist became the ' 60 's guru of psychedelic art?
2. What Anthony Burgess novel became a Stanley Kubrick film?

Continued on page 8

## THE

## MATHEMATICS COLUMN

Some things that you may not have known about Roman numerals.

by Fraser Simpson

Anyone who is at all curious about how old some movies are will have learned to read Roman numerals quickly. In the credits of a film, the year in which the film was made will appear in Roman numerals in order to discourage the audience from reading it. Indeed, we find it difficult to translate back and forth because the system is so cumbersome and unfamiliar to us. If you doubt this, before reading on see if you can render the four numbers $19,51,501$, and 20000 in the Roman notation that we know today.

Let me remind you of the basics of the Roman numeral system. The numbers $1,5,10,50,100$, 500 , and 1000 are represented by I, V, X, L, C, D, and $M$ respectively. You recall that when you place a letter or letters to the right of a letter of larger denomination, you are adding the former to the latter. When you place a letter or letters to the left of a letter of larger denomination, you are subtracting. This means that LI is 51 , whereas IL is 49 . DI is 501 , and ID is 499. XIX is 19 , and XXI is 21 . Usually, you are not to place more than three symbols of the same type together. So VIIII would be better written as IX (the subtractive equivalent), and CCCC would be replaced with $C D$ (Interesting: How would you write 1444?).

You may be surprised to learn that some experts believe that the subtractive idea does not date back to Ancient Rome. Scholars have found only scattered instances of it on tombstones and early documents, usually occurring when the writer found he had limited space at the end of a line. If you're interested in the evolution of what we now know as the Roman numeral system, the few minutes that you spend reading pp. 30-32 of A History of Mathematical Notations, Volume 1 by F. Cajori (EMS QA 21.C135 V.1) are well worth your time.

A bar over a group of letters means to multiply their value by 1000 . So, for example, $\overline{\mathrm{XX}}$ would mean 20,000 and $\overline{\mathrm{VI}} \mathrm{VI}$ would mean 6006.

Strokes on the top and sides of a group of letters means that these are to be taken as hundred thousands (although note that some books do not agree on this). For example, $|\overline{\mathrm{X}}| \overline{\mathrm{XX}} \mathrm{IX}$ would indicate 1,002,009. (Interesting: What is the value of the silly numeral $|\overline{\mathrm{V}}| \overline{\mathrm{C}}$ ? No book that I've seen gives rules on how and when to use the bars, although it would be easy to construct some. Readers are invited to submit what they would consider to be a logical set of rules.)

How did the Romans come to choose the letters they did to represent their numbers? The numeral for 'one' is no doubt an imitation of an upright finger. Five could be an open hand with the fingers together, and ten could be to V's, one on top of the (inverted) other. Experts have come up with other explanations as well. It is known that the Romans sometimes used an I in parentheses to represent 1000 . Since CIJ was 1000 , half of it, or IJ, was 500 . Printers probably influenced the change from this writing of 500 to D.

My dictionary (Funk and Wagnall's Standard College) lists H as the medieval Roman numeral for 200. In fact, many letters had values in medieval times, including F as $40, \mathrm{R}$ as 80 , and Y as 150, according to a table in Cajori's book.

I don't have room to discuss the Romans' partiality for duodecimal fractions, but Cajori's book is again a good reference for that. Instead, I'll close by mentioning that the letter J is sometimes used as a variant of I at the end of a number in medical prescriptions. For example, 52 might be written as lij instead of as lii. Can the reader figure out why this is done before I give the solution in next issue's column?

In last issue's column, the reader was asked to work out the magician's secret in the domino conjuring trick. If x and y are the spots on opposite ends of the domino, the instructions give the expression $10 \mathrm{x}+\mathrm{y}+25$. The conjuror need only subtract 25 from the total given to him to end up with a two-digit number whose digits represent the spots at the two ends.

Also, here is why a mattress has leather buttons: "If the stuffing of a mattress were put in the case without any fastening, it would soon all work down to one end, and the mattress would be uneven and uncomfortable. To prevent this every mattress is sewn through with string, which is fastened to the buttons we see outside. The stuffing is thus kept evenly distributed in small compartments."

## Opinion

You people are in luck this time: the survey shows that we have cut up the chevrics enough this term already. Further, I am way, way past deadline and do not have very much time to write up anything. Therefore, thus, and hence, this column contains miscellaneous gripes on anything that I can think of.

My first complain concerns the Math 230B (you guessed it! I'm in 2B). Do we (we meaning CS, ActSci, CA etc. students) really have to take this punishment? I can see that somebody in Pure Math, or maybe even in Applied Math, might find this course marginally useful in their afterlife, but I personally expect (and hope) to have no use for Riemann triple integrals or line and surface integrals. I expect the CA's will find them even less relevant. Why can the Math Faculty not offer a more applications-oriented course for those of us who do not wish to suffer through cruel and unusual punishment like 230B? The class averages are hovering near $40 \%$ - and all the CS majors need this as a prerequisite for CS375! Therefore, one must pass in order not to screw up the CS course sequence.

Have any of you ever biked all the way down University Ave. to Hallman Road? There is an interesting traffic light at the intersection; at night it is activated by the weight of the approaching car. This is very interesting from a cyclist's viewpoint, since should you want to ride by the traffic laws, you basically have to wait until a car comes along University and causes the light to turn green. I do admit to having broken a few traffic laws with my bicycle, but I do have an aversion to driving through red lights. What is one to do? Do I really have to turn right and then make a U-turn? Does anybody know?

Last production night (i.e. 2 weeks ago) I decided to leave early in order not to miss the last bus. Having done a few work terms in Toronto, I figured that leaving at 12 am would give me plenty of time. Surprise, surprise! The last mainline and 8-loops buses leave past midnight, but the last Queen South leaves the downtown terminal at 12:10 am. Could Kitchener Transit (Chancit?) not extend its hours by a wee bit? A final bus leaving at, say, 1 am , for each route would, I am sure, be welcomed by many a student. This might actually bring some other revenue to the Transit, too, since many people out drinking until 1 am could take the bus home instead of a taxi. Tom Allison? Sir?

Could you suggest this to the Transit? The Federation is the representative of the students, and those CS assignments do take a damn long time to finish...

Tom Watts

## Math 140 and 144

I'm sure that most of you first year math students already knew of the clever idea that has been run for the last few years here at this hallowed institution: the advanced level courses offered in Calculus and Algebra. Now, just because we're here at Waterloo, we know we're pretty hot stuff. I mean, the cutoff for grade 13 average was over eighty percent, wasn't it? We were all pretty bored in Functions and Relations, Algebra, and Calculus, right? So now we are presented with the opportunity to expand our minds under the tutelage of some of Waterloo's finest professors, with small classes and a more studentweighted marking scheme to boot. Sounded good to me, so I signed up. Big mistake. I (like many of my classmates) am now floundering in epsilons and deltas, moduli and Chinese Remainders. Most of us rarely got below ninety in high school; it looks like the bulk of the class failed the midterm.

I saw quite a few people walking out of that exam looking like they wanted to cry. Maybe on the final they will (almost certainly I will). The point is that you were near the top of your class in high school, and now you may be near the bottom of the class. I had contemplated this when I was graduated, but had dismissed it on two counts:

1) I myself would not of course be one of the people at the bottom (wrong), and 2) It would be so intellectually stimulating to be among people who were better at math than me (wrong, it's only annoying).

I hope that you try to convince your younger brothers and sisters that university is much tougher than they expect. Let's hope they listen more than we did.

## Quote of the Week

"It's amazing what you can do with infinite groups. . .and get away with it."
E. Amdur, 2B CS

## CS officially takes over!

BYLINE: Mathematics and Computer Centre, University of Waterloo, Thursday, November 10, 1983. The long-awaited arrival of the blue statue has categorically proclaimed the dominant position of Computer Science within the Faculty of Mathematics. Established denizens of the campus will remember the statue in its former life as it decorated Carl Pollock Hall, near the "Orange Cow". In that incarnation its "CS" shape was of ten construed to mean "Civil Sucks", but it has flowered into a symbol of Computer Science at Waterloo.

It is now high time for the other departments to get into the act. To be fair, each needs a statue, and nobody wants to take credit for "Break", so what will they do? Your intrepid mathNEWS reporter vows to stay on top of this fast-moving story.

Scoop

Has anybody with any taste seen the travesty outside of our beautiful M\&C building? There is a huge chunk of ugly, twisted blue metal. What? It's art, you say? Sad that most of the people who will have to look at it are not spending several thousands of dollars a year to learn to appreciate such "art". The last I remember, there was a perfectly serviceable post there, giving directions to the ignorant and the lost. Now, there is an eyesore.

I can express it no more aptly than one student whose words of wisdom I heard in passing : "What the hell is that?"

## Sparky's Bedtime Story

Once upon a time in a land quite nearby there was a man. This man was really a very ordinary and dull man, with really no redeeming qualities. This man never had the chance to become intelligent, so he often rambled about whatever came to mind. This the townspeople did not really understand, so they ignored him.

No, this man did not become the Premier of his country, nor is he remembered as a scientist, or a genius, or even at all. He just died on a mediocre day and was completely forgotten. THE END.
-* Sparky *-

## dateline Waterloo:

Two separate groups have claimed responsibility for the blue structure planted in front of the math building this week.

A group calling themselves 'Frisbees Unite, Ban All Rugby' was the first to 'fess up. Their leader refused to comment when he was informed that the new arrival would probably interfere more with a typical frisbee flight path than it would affect rugby, as rugby is carried out on the north campus. He did, however, admit some surprise that it was discovered so soon; "We painted it blue so that it would blend into the sky. Next time we'll use gray."

Another small group, actually within the civil engineering department, concerned with advances in friendly hardware was discovered trying to shift the
monolith. Apparently it was originally supposed to be a sundial, but they claimed it was installed incorrectly. Experts suspect the error was caused when the C\&D lounge clock was used to calibrate the sundial.
ermorrissey

## Dateline Waterloo--the truth at last

It seems that before your loyal mathNEWS reporter/coeditor had a chance to do a decent cover story on the "new" sculpture just outside the me building, your loyal reporter/coeditor was swamped by creative writers giving their versions of the story. Depending upon how things go during production night (i.e. how much filler is needed), you will be seeing some of them. Anyway, here is the honest-to-God truth of the matter.

The sculpture is entitled "David of Sassoon" (named after an Armenian legend) and was originaly lent to the university in 1977 by the Buzbuzian family (it was sculpted by Armand Buzbuzian), and has been residing the past few terms way out over by Carl Pollock Hall (no-man's land to us humans). It was moved over to where it is now because it was among several other sculptures over there and is now in a more strategic location - beside our beloved building. It looks quite nice from ring road against our gray background. (Ironically, it appears to read "CS" from this vantage point, although it is not to be interpreted as such.) It is also rumored that mathies have better art appreciation than engineers.

More New Words

po-ordinates (n., pl.) A portmanteau of "polar co-ordinates". Easier to say and write. brasshole ( n .) The spit valve on a brass musical instrument, especially the trombone. Coined by the Warriors Band.
hack-back (n.) A stiffness or soreness of the back caused by sitting at a computer terminal for extended periods of time. Often called (pun intended) a terminal illness. Only reliable cure: fewer CS assignments.

Here we are, one more time. This is my last masthead for the term, being that Glenn ( $N * 2$ !) will be doing the last one. This issue, by the way, almost consisted entirely of high-quality filler (it still mostly does.) However, some last-minute articles have once again destroyed mathNEWS' reputation as the most consistent filler on campus. Well! The writers for this issue were: Sparky (Bedtime story, others as they fit). Glenn (Truth about the statue), Brian Scearce (Advanced math), Fraser Simpson (Math Column, Crossword). dwarf (BNF, baby boomers, new words). Shoushan Keoshkerian (mathletics), Peter Z. (ad), Ross Morrissey (statue). Tom Watts (that's me) did other stuff like Math Meeting (you asked for news!), SCuMSbag. Opinion and so on. **** NEWSFLASH **** The Euchre tournament has been won by Brian Elliott and Greg Malcolm. They won all their six matches, winning 12 of 14 games on the way. The production crew consisted of the following: Biscearce(layout, pasteup, etc.), Chris Kitowski (Layout, calendar version 1.0 (killed by a malfunction Imagen printer (that's DCS again (it was the Xerox laser breaking last time (last issue that is)) ) ). Glenn did layout and general supervision (that's what he's best at!) Stewrat Fraser did the cover, and even without the bombs Saeed dropped in for a while to do a bit of taping, and Fraser did layout, taping and was a general nuisance with his imprintish neatness and anti-filler attitude. Thanks, Fraser! Sam and Helen stayed until almost the end to do layout, taping atc; Sam also did the calendar version 2.0 the one you will see), and Helen did a fitle you will not see. Dwtill appeared mysteriously from nowhere, and disappeared even more mysteriously. Then, finally, what I did today was mainly write and type; none of Opinion, SCuMSbag or Math Meeting had been done by noon today Grrreat fun! <<< Note >>> APLsoup was cancelled due to lack of response, ut the winner(s) still get their (1) T-shirt: Allan Stokes and Alan Yoshioka will share a shirt. Well, it's been a great term, I did like editing, but, remember: if I fail calculus and stats, it's all YOUR fault! This seems to be the end, there is much more to say but, alas, no time or space, so this is Tom Watts signing off.. CP LOGOFF AT 23:24:11 E.S.T ON 11/15/83

## Continued from page 4

## Lives and Times

1. Does she or doesn't she what?
2. What did Timothy Leary proclaim as the sacrament of his new religion on September 19, 1966?

## RPM

1. What cut on the Sgt. Pepper album was banned in Britain?
2. What Indian wrote the all-purpose protest song Universal Soldier?

## The World

## According to BNF

## Tautological:

<A> ::= <A>

## Multiple Buckpass:

## <A> ::= <B>

<B> ::= <C>
<C> ::= <D>...

## Bureaucratic:

```
\(\langle A\rangle::=\langle B\rangle\langle A\rangle|\langle A\rangle\langle B\rangle\langle A\rangle|\langle A\rangle\langle B\rangle\)
\(\langle B\rangle::=\langle A\rangle\langle B\rangle\langle B\rangle\langle A\rangle|\langle B\rangle\langle A\rangle\langle A\rangle|\langle B\rangle\langle A\rangle\langle B\rangle\)
```


## Wallflower:

::= <A>

## Existential:

<A> ::=

## Marxist:

<B>::= <A>
<C> ::= <A>
<D>::=<A>
<E> ::= <A> . . .

## Geometric:

<A> ::= <A><A>

## Shakespearean:

<A> ::= <2B>|<r2B>

## Indecisive:

<A>::= <B>
<A> ::= <C>
<A> ::= <B>
<A>::=<C>...

## rhis Week's Theorem

$$
\begin{aligned}
& e^{i \theta}=\cos \theta+i \sin \theta \\
& e^{2 \pi i}=\cos 2 \pi+c \sin 2 \pi \\
& e^{2 \pi i}=1 \\
& e^{2 \pi i}=e^{\circ} \\
& \therefore 2 \pi i=0 \\
& \text { coroltury:2 } 2 \pi
\end{aligned}
$$

## SCuMSbag

Due to severe lack of days longer than 24 hours, the SCuMSbag will once again be rather short. We will cover once again things you can do in CMS. If you are in CS240, your STUDENT COMMANDS B file now contains a line allowing you to run a file called FLIST MODULE. This is a full-screen file selector, which allows you to edit, print, type, erase, etc. any files you have on the disks you have access to. The only catch here is that there is no module on the CS240 course disk; you have to get one yourself. There are a couple of ways of going about this: first, if you know someone in CS234 (ugh!) you can get them to send you a copy; it's on the CS234 course disk. Alternately, there are several people in CS240 who also have copies. If you can do neither, tell us (userid MATHNEWS) and we will direct you to somebody who has a copy.

Once you have a copy, just type FLIST followed by any file id specifiers (just like LIST), and you will be shown a full screen display of the files. You can likely move backwards and forwards (pages that is) by using the PF7 and PF8 keys. To edit a file, just move your cursor to the correct line, type an "X", and hit <enter>. Once you have finished editing, file or qquit, and you will be returned to FLIST. PF3 or PF12 will return you to CMS from FLIST.

You can sort the list of files: use $/ \mathrm{s}$ followed by a key letter. For example: /sd (sort by date), /sn (sort by name), /sb (sort by block (= size)), /st (sort by type). Type one of these commands on any line on the screen, and hit <enter> to effect the sorting.

Finally, let us break a common misconception: XEDIT is not considerably more expensive than EDIT. It does cost a bit more, but this is usually less per session than what it costs to run NEWS. FLIST is not very expensive, either.

## Ultraclassifieds

Bamboo, you really don't relate at all well to Science Fiction, and you didn't fit in last issue. I was cut!

> -Richard

For sale: $26^{\prime \prime}$ RCA b/w T.v. \$20, very good working order. Call 885-0892 after 5 pm .
This is not intentional blatant filler. It only looks like it.
-the eds.

## WATSFIC

The results of the Writing Contest are in: First prize ( $\$ 50$ cash and publication) goes to John Haines for his story "Bob's Saga". Second prize ( $\$ 25$ Gift Certificate) is awarded to Ronald Green for "A Child of the Land". Bruce Gehiere won third prize ( $\$ 15$ Gift Certificate) for his story entitled "On the Cleverness of Wizards and Other Nonsense". The story contest will be held again next term, so start honing those writing skills in preparation!

Games Day will be held on December 3 (the Saturday after lectures end). Starting at 10 am in the Math building, people interested in playing ANY non-fantasy role playing games can get together. Watsfic has over 50 games available for play, and you can bring in any game you are interested in. Anyone, and any games are welcome. It's a great way to end classes!

Finally, the results of the $D \& D$ tourney. The "Friends of Othacci" placed first in the first round and the whole tourney. "Avant Guard" took second place, and the "Typical Inhabitants" took third place. The "Friends of Othacci" took the day winning over $\$ 200$ in prizes. Their team members were: Gilles Dignard (Captain), Rick Tessner (Best Roleplayer in Tourney), Herb Whitney (2nd best Roleplayer), Jack Broughton, Joe Heally, and Craig Hubley. Randy Hammond, of the "Typical Inhabitants", took the title of 3rd best Roleplayer. Congratulations to all participants! Good luck on the next tourney!

## Conspiracy

## Imperialist monopolies.

Sucking our lifeblood each day
in a conspiring way.
The profs won't say -
but they must be part of it!
Why else fill blackboards with proofs for the hordes but to fill the smorgasbords of the pencil and notepaper monopolies!

Luckily they caught on our friends at the chevron denouncing the lackeys of oppression all while "defending the basic interests of the students!"

Really.

## Trivial Pursuit Answers

## MathGrads

Grad photos will be taken the week of November 28, 1983. Everyone who has a photo taken is automatically included in the composites and yearbook, and receives a complementary yearbook. There is a $\$ 8.00$ sitting fee. More information and appointments at MathSoc.

Television: 1. Jack Benny. 2. Beat the Clock. Stage and Screen: 1. The Longest Yard. 2. Bob Dylan. Nightly News: 1. A hydrogen bomb. 2. Richard Nixon. Publishing: 1. Peter Max. 2. A Clockwork Orange. Lives and Times: 1. Use Clairol. 2. LSD. RPM: 1. Day In The Life. 2. Buffy Sainte-Marie.

Bent of the Federation of Students Math Soc presenis BLUE PETER
 fedss5 Waterloo Inn
others\$6

## Cryptic Crossword

## by Fraser Simpson

Solve this crossword as you would any other cryptic crossword. Solutions should be submitted to mathNEWS no later than Saturday, November 26, 1983. Prize: 83/84 Math T-shirt. Last week's winner: Daniel Simon (drawn by random sampling from four correct solutions.)

## Norcen Scholarships

One award of $\$ 2,000$ is available to students who are entering 3rd year in the Information Systems option in Computer Science,
and have an interest in the energy field. The decision will be based on academic performance and an assessment of the applicant's reasons for applying.

Interested 2B students should submit a "U of W Scholarship Application Form", the deadline is November 30 th, 1983. The decision will be made during the Winter term. Award forms and further forms are available at the Student Awards Office.

## MGB Record Raffle

The Math Grad Ball (believe it or not, that's what MGB stands for!) Record Raffle tickets are now available. One ticket, which costs the wee sum of one dollar, could win you 25 LP's of your choice (the first prize). The second prize is 15 LP's, and the third prizes ( 10 of 'em) are each one LP of your choice. The draw is on Friday, Nov. 25, and the tickets are available at MathSoc (MC3038), Federation of Students office, and records on Wheels. All proceeds will go towards funding the Math Grad Ball.

## T-Shirts back in stock

MathSoc has the 83/84 T-shirts back in stock! The blue shirts were sold out soon after the last issue, but there is now a new shipment of shirts available. All sizes are available in blue, and most in red. The shirt features Alice and the Cheshire cat with the text "You must be mad or you wouldn't have come here." The sizes are S, M, L and XL, and the cost is $\$ 5.00$ per shirt including sales tax.

$d y / d x=0$

1. Criminal makes group rest uneasily. (8)
2. Animals returning to play the leading part. (4)
3. List featuring a piece of furniture. (5)
4. Proposition: wrap shaking miser in a shortened pelt. (7)
5. He never buys what he wants. (12)
6. Bird disease. (6)
7. New pilots to get a revolver. (6)
8. About offspring reproduction. (12)
9. I'm after nothing but a painting technique. (7)
10. Is obliged to show up in enough talk-shows. (5)
11. Strong wind tugs wildly. (4)
12. Beats, but sups late, strangely enough. (8)
$d x / d y=0$
13. Get a new entrance.
14. Real bun made in the shape of a cloud. (7)
15. Awkwardness that the ram and ewe felt? (12)
16. Use me the other way with a manoeuver. (6)
17. I bail out with a defense. (5)
18. The master copies for the new client on board.
(8)
19. Reprisals when ration is late, perhaps. (12)
20. Featuring rodents coming up on a hoop. (8)
21. However, the capital of Turkey will bring forth judgment. (7)
22. Ransacking the room, with a bit of luck, will yield a substitute for gold. (6)
23. Stares in surprise with the pages out of order.
24. Satisfy rising demand for letters from Greece.
(4)

## Mathletics

The women's intramural basketball team ended the basketball season with a perfect record. We worked long and hard to maintain our position and I am pleased to say the other teams did not even come close to threatening it. I would also like to mention that we even managed to achieve our two goals- each player score at least one basket for the season and our total score for at least one game to be in the 2-digit numbers.

The team met after our last game and (amongst other things) decided to end its illustrious career in basketball. We feel we have perfected our basketball techniques sufficiently and want to move on to bigger and better things.

I would like to thank all the people who came out to play every Wednesday evening. We had a lot of laughs on the courts - especially when one of us got a basket (even the refs cheered us along). We will team up again next year, and this time, wreak havoc on the volleyball courts. Thanks again.

Shoushan Keoshkerian

## Elsewhen

## mathNEWS 10 years ago

-"It was also revealed that mathsoc is not the only organization finding itself it, at least what should be, an embarrassing money making situation. Paul Armstrong, manager of mathsoc's Coffee and Donuts Club ( $\mathrm{C} \& \mathrm{D}$ ), referring to the notice which has been posted behind the C\&D stand that states $C \& D$ is losing losing money, commented 'I lied.'"
-"There is a plan to remove some of the rug in the Campus Centre Pub. This area will become a painted floor for dancing. Also there is a possibility of holding the pub at the Centre permanently."
-(whappening?)...SUNDAY, Nov.18....8:30 pm Concert: "Frank Zappa" Phys-Ed Complex
-"I feel that this school should have an arena to put us on the map in sports and also to provide extended student facilities for both participation and spectator sports. If an arena is built here it should be built on open land to the north of Columbia and it should have at 2,000 seats in order to be worthwhile."

## Real Programmers At Work

Real Programmers like to keep their managers in suspense.

Real Programmers never deliver programs on Wednesdays.

Real Programmers never deliver programs on the first day of any month.

Real Programmers never submit printed schedules of their activities.

Real Programmers never work 9 to 5. If any Real Programmers are around at 9 AM, it's because they haven't left yet.

Real Programmers know better than the users what they need.

Real Programmers explain their work (if ever) to their managers in baby-talk so they will be understood.

Real Programmers don't write specs-users should consider themselves lucky to get any programs at all and take what they get.

Real Programmers never deliver programs on schedule. Either the program is "done" in two days or it is never finished. In any case, it is never delivered when it was scheduled.

Real programmers argue with the systems analyst as a matter of principle.

Real Programmers drink too much coffee so that they will always seem tense and overworked.

Real Programmers do not write memos.
Real programmers do not read books like Effective Listening and Communication Skills.

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