

Deadringer Report

In Monday Night Floor Hockey action, the Math Deadringers continued their strong play with a 7-5 thrashing of Design Force. The Ringers have now won three successive games and are challenging for top spot in their division. The game featured the return of Kelvin Martin and John Avis to the line-up, as well as a guest appearance by David Puitinen.

The Ringers took a quick 1-0 advantage, as Ray Byam's low shot found the corner. Design came storming back with the equalizer. The Ringers regained the lead a few minutes later, as Ray blasted another low shot that eluded the enemy cageminder. Eventually, Design managed to tie the score at deuces. Then came the Ringer onslaught, five consecutive goals.

Kelvin Martin bagged a pair, with Pierre Lapalme, Mike Turcot and John Avis adding singles. At half-time, the Ringers enjoyed a comfortable 7-2 advantage. In the second half, it was too little too late, as Design potted three goals, making the score respectable.

The three stars as selected by Floor Hockey Night in Canada were: Brad Adams, Armand Chiasson and Pierre Coupal. Special mention to Ron Sisson for taking the best stupid penalty of the game.

The Ringers' next game is Monday February 23rd against the Ducks, formerly known as Co-ops, 7:45 at Seagram's Stadium.

M. Adringer

STUDENT ADVISORY COUNCIL

The Student Advisory Council (S.A.C.) is a group of student representatives who advise the Department of Co-ordination and Placement on matters of concern to co-op students. The Math Faculty is represented on the S.A.C. by Art Owen and Susan Jeffery (userids abowen, and sjeffery). If you have any ideas about ways to improve the co-op system please mention them to either of the reps. (Please note that the S.A.C. is an advisory committee and not a grievance board or an ombudsgroup.)

S.A.C. will be discussing work reports next. If you have any comments on the grading of work reports, or the standards set for work reports, please bring them to an S.A.C. representative, or leave them in the 'Education' mailbox in the Mathsoc office.

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math NEWS

SOCIAL DIRECTOR'S REPORT

Well, I'm back - lately I only seem to remember to write an article every second week. The Math-Fed Pub at the Waterloo Motor Inn last Thursday with the Downchild Blues Band is now over. I was practically the only Math person there (that I recognized anyway) so I wouldn't call it an overly successful math event. There were only 300 or so people there in total (the maximum possible is 600 or so) so it wasn't exactly a successful fed affair either. I think Denise (of the Federation) was quite happy about getting to share the monetary responsibility with the Math Society. I haven't been informed yet as to what our share of the losses is going to be but I'm keeping my fingers crossed that it won't be **TOO** substantial (not that we're actually out to **MAKE** money or anything but it would be nice not to lose **TOO** much - and it would even be nicer to occasionally break even once in a while - but I guess that's being **TOO** optimistic!!!). At least, we're sort of up \$40 because no-one entered the draw for the \$40 gift certificate at the Ali Baba Restaurant and luckily I never managed to find time to buy the certificate so I still have the \$40 which I can now return to the treasury. (*Isn't life wonderful!*)

The next math event is to be on the 25th of February in the Math Faculty Lounge. The refreshments will include beer (50 cents for Math students and 75 cents for others), soft drinks (25 cents), and some munchies (free - but they never seem to last very long). The entrance fee will be \$1.50 for Math students and \$2.50 for others.

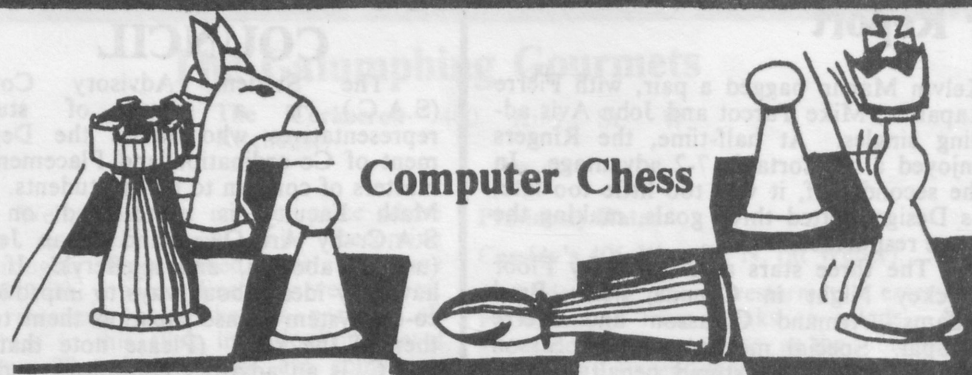
The theme for this pub will be "summer tops". For those of you who don't understand what this implies, it means that you are to wear a summer-type top (for example, halter tops for women and muscle shirts for men). Prizes will be given out to the xth, yth, zth, and wth person to arrive where x, y, z, and w will be numbers chosen at random by yours truly, written down, and handed to some other person in order to lower my chances of being able to fix the results.

Note: As usual, I need volunteers to help out with the Pub and I will put a sign-up sheet on the glass in front of the C&D lounge - so please sign up!!!

Now, on to some more serious business. After the last Math event held in the Math Faculty Lounge (on the 29th of January), I received a notice/memorandum from Ken Hunt,

part of which I will now reprint here: "During the night 26/27 January 1981, the night of the Math. Soc. party in the Faculty Lounge, mail for Professors J. Cizek, J. Paldus and R.G. McLenaghan was stolen from the office of the Applied Mathematics Department. Any assistance from the members of the Mathematics Society in the recovery of the professors' mail would be appreciated. In addition to the theft the mail on 'in/out' box outside Mr. Springer's office was torn apart." It would be appreciated by all concerned if the missing mail was returned but, at this late date, I don't expect that to happen. If occurrences of vandalism and theft continue to occur, it could result in our being denied the use of the Math Faculty Lounge for any functions, especially licensed ones. It is in the best interests of all that vandalism and theft be stopped and the help and cooperation of every one of us is needed to do this, so, if you can't/won't help, at least cooperate, please and thank you. As an act of prevention by the Math Society, a security guard has been hired to patrol the math building on the night of the "SUMMER TOPS" Pub coming up on February 25th.

Marnie Shaw



Computer Chess

There is going to be a chess match between two computers in Waterloo next month. The match is a challenge competition between the DEC 20-40 computer at Equitable Life Insurance Company and the ModComp mini in our Portability Lab. The play will take place in MC3008 on Saturday afternoon, March 28th.

The organizers for the match are Professor L.J.Dickey, of the Department of Pure Mathematics and the Department of Combinatorics and Optimization, and Jonathan Schaeffer, a graduate student in the Department of Computer Science. They will be using a program that Mr. Schaeffer is polishing up now that has evolved out of work that he did for his Master's Thesis last year, in which he set out the design for a program that he refers to as PLANNER.

Jonathan, who hails from Thornhill, Ontario, and who is an excellent chess player in his own right, hopes to gain experience in this match that will help him in his goal to win the next world computer chess championship.

This match is considered to be a 'friendly game', because it will not completely adhere to all of the rules for computer chess. For instance, the usual rules specify among other things that there must be no human intervention, and that the computers must talk directly to each other. Also there must be no changes in the parameters of the program during play, so an operator could not give a hint like "Look out for that rook!", or "Play your end game now!". In the game that will be played next month, there will be no changing of parameters, but there will be human involvement, to the extent that the moves will be read from a terminal screen connected to one computer and entered by an operator on a second terminal connected to the other computer.

PLANNER is written in Zed, and runs on the THOTH operating system, and as such, is highly portable. For instance, if the ModComp fails, the program could be easily moved to the TI9900 or the Honeywell Level 6.

THOTH is an operating system that was developed at the University of Waterloo. Its name was given by Laurie Melen (a former student) and was taken from that of an ancient Egyptian Diety. The next time you are in London, you can see references to Thoth carved in a stone obelisk in the Egyptian collection of the British Museum.

Zed is a language similar in many regards to Eh, B, and C, all of which are descendents of BCPL, (Basic Computer Programming Language, not to be confused with BASIC!), developed some years ago at the University of Cambridge. Perhaps the best known of this group of languages is C, since it has been developed and promoted by Bell Labs for its UNIX systems.

This foray into Computer Chess is not the first for Waterloo. It was Ron Hansen who wrote TREEFROG, the famous program that finished first place in the First Canadian Computer Chess Championship in May 1974, (it was called RIBBIT, then), and then in July 1974, tied for 2nd-4th place in the First World Computer Chess Championship, in Stockholm, Sweden. Later that year, in November, it took first place in U.S. Computer Chess Championship, defeating CHESS 4.0, the program from Northwestern University that had taken the world title only a few months before. The U.S. Computer Chess Championship changed its name the next year to the North American Computer Chess Championship, because Waterloo had won it the year before.

A major contributor to that project was Russell M. Crook, who was at that time an undergraduate student majoring in physics. Russell is an excellent chess player and knew enough about computers and programming to suggest feasible fixes for the program, rather than cloudy 'it should attack on the queen-side' type of suggestions. He also wrote the book of opening moves for the program. Just as chess masters have a collection of opening moves, and certain standard responses to these, so do computer chess programs, and this collection is referred to as 'the book'.

We do not know a lot about our competition for the game that is coming up on the last Saturday in March. We wonder if it might be a version of Tinkerbelle that we have heard about. We do think that PLANNER is a very good game which has incorporated some major advances that have been made in the past seven years. At the time of writing, it is generally held that CHESS 4.7 (we think it is '.7' now) is the best proven computer chess game around. Note the word 'proven'. We want to change all of that, and take the title again. This game in March will be a public test of what PLANNER can do.

ljdickey

FILMWATCH

With first-run movies costing over four dollars, it's probably a good thing that these days none of them are worth going to see anyway. For the intrepid student, however, there is no shortage of good movies right here on campus. Several Architecture and Fine Arts courses regularly screen films (ask the prof to let you sit in), and the various student organizations (and others such as the Cine-Club) often sponsor subtitled films. But the most obvious sources of movie entertainment are the Campus Centre's Cinema Gratis, the UW Arts Centre International Film Series, and of course, Fed Flicks.

Wednesday night the films shown in the Great Hall of the Campus Centre cost nothing, except for the labour involved in moving the furniture. The films are chosen by those fugitive hippies called turnkeys, and thus often a better selection is available. Last week, for example, they screened that old chestnut "Casablanca". Unfortunately, the sound quality is usually horrible, the projection amateur, and there are numerous distractions such as the glow from the vending machines and the chitchat at the turnkey desk.

The UW Arts Centre shows four subtitled foreign films a term, in the Humanities Theatre. Previous films in the series have included the spectacular "Napoleon" and the bizarre "How Tasty Was My Little Frenchman". The films in this series tend to be of an intellectual nature. Thursday's screening was "The Story of Sin", by the Polish filmmaker Valerian Borowczyk. It was quite a stylized film, dealing with the misadventures of a young girl who falls in love with a married man. Though erotic in places, the film tended to be confusing, and the subtitles were quite sparse. Advantages to this series are the location and the well-behaved audience.

Finally, we have Fed Flicks: good old cheap mass entertainment. (How close can they draw the 'l' and the 'i' on the posters?) The films are shown in Arts Lecture Hall 111, and the atmosphere is generally rowdy. This can sometimes be an advantage if the film itself is rowdy (as last week's Animal House was), or just plain bad (Star Trek, for example). Be warned: the lineups outside usually collapse into chaos, and you may get hit inside by a paper airplane. But if you've got nothing better to do on a Friday night, Fed Flicks are for you.

E. Eccles

Monologue

-with Brad Templeton

"Apathy is not the problem, it's the solution!"

Ah, apathy. Mysterious, wonderful apathy. Ask a politician about it; he'll say that apathy is the reason nothing ever gets done, that it is the cause of most of our problems. Well, he's wrong, it's the cause of most of **his** problems, not ours. When a student politician complains about apathy, he is really saying, "Students just won't get interested in what we tell them they are interested in."

It is an unusual world we live in. For some reason, we allow politicians to decide what we are interested in, and then give them the means and money to argue the case with. The central delusion of politicians causes them to think it is their duty to dream these things up, for taking a leading stand on an issue, even if it is a made up one, is a symbol of power. In a valuable political situation, the issues rise from the populace for the politicians to deal with them, not the other way 'round.

It might not be so bad if politicians did not desire power by nature. It is hard to blame them however; we all have some of the desire within ourselves. It starts small with a simple desire for more control of our own destinies. In any sort of governed society, one quickly sees that officials appear to have more control than the average person. If one is so inclined, one will try for a post. This action not only appears to increase the amount of control a person has, but will also increase personal ideas of importance and self-esteem.

Unfortunately, obtaining such a post does not always result in the increased security that we all desire. One often finds that the emotions of wanting were stronger than the emotions of getting. Many realize this and stop at this point. Others, unfortunately, conclude that they simply did not get *enough* authority or power. They envy the position above, for it is one of greater importance and benefits. Eventually, they will attempt to obtain it. Quite often it is done with good goals, a politician will be excited about all the great things he can do for his constituents. Alas, quite often these 'great things' are not quite the ones that others have in mind.

This is notably true on campus, where serious issues are in very short supply. As I detailed in a column last term, students are a group notably without common political views or goals, and thus can not be represented politically. This term, I reiterate: By our apathy at the polls we show our lack of desire for this political representation. As I say in my quote of the week, this apathy is not a prob-

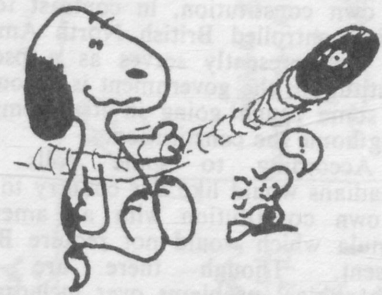
lem to be solved, but rather the opinion of many students. Student politicians constantly search for more issues so they can feel they are doing something, but we, by our lack of interest, show them we don't want them to do these things. Politicians must realize that lack of support does not mean the constituents don't know about the 'problem', it means they don't care about it.

Our friendly feds must not realize this, for they continue in their antics. Despite the fact that more people come out to see FASS than attend a general meeting says nothing to them. That 100 people will join something like FASS (a very time consuming activity) while only 5 join an 'Election Action Committee' or participate in a 'Fee Hike Strike' (even at U(O) where it was official) must say something about what people care about. No, despite this, a great travesty was reported in the Imprint last week.

Many of you will have seen a report by Peter Hoy (chairman of BEER) on a planned merger between the National Union of Students (NUS) and the Association of Student Councils. (AOSC) The AOSC is a service organization, which provides various national level services to students. The NUS is an entirely political (read *evil*) organization. Each gets about a dollar from the fed fee you pay. The planned merger would subjugate the useful AOSC in a new organization. Four dollars of your fee would go to the national organization. One of these dollars would go to the AOSC (with inflation, less than what it gets now) and **three dollars would go to the political wing!** There are hundreds of thousands of students in Canada, and \$3 would come from each one for political representation if this was done. This money would pay for lots of people with funny ideas of self-importance to go flying around convincing you the money was well spent, and allow them to lobby (read have drinks with) MPs in Ottawa.

Since I have advocated for some time that the Federation of Students be split into service and political sections with separate fees, you can guess my opinions on the merger of a political group and a service group. The important point to note is that by paying your fed fee for local services, you will also be supporting the new organization to the tune of four bucks. (assuming the referendum goes through at enough campuses) Once again, these people will assume that this form of passive support is active support, a mistake they really should not make.

PLATTER SPATTER



Orchestral Manoeuvres in the Dark is a long and fascinating name for an undeservedly obscure band, and those who are tempted to buy their record "Organization" solely on the basis of that fascination (as I did) will be relieved to know that it is a worthwhile purchase.

Orchestral Manoeuvres in the Dark consists of two London boys, Paul Humphreys and Andy McCloskey, who between them play bass, drums, saxophone and a lot of synthesizers (no doubt they use a lot of tape recorders too). Bands that rely mostly on synthesizers for their main sound tend to fall into one of three categories: pretentious (Yes), mechanical (Kraftwerk), or alien (Gary Numan). Orchestral Manoeuvres in the Dark is the first synthesizer-based band I have heard that is human and accessible.

The first song on the first side, "Enola Gay", is a good example. It features synthesized percussion, a bouncy counterpoint, and a melodic main line. This song could easily be an AM hit given a little airplay. (Enola Gay is the name of the plane that dropped the bomb on Hiroshima. This fact could lay the band open to charges of cheap intellectualization, but the song only has three chords, and you don't notice that, either!).

The other songs on the album explore the range of human relationships and moods. "The More I See You" has a melody out of a '40's love song, and the duo simulate a host of singers by slightly varying the speed on their tape recorders (and thus the pitch of their voices). It's unfortunate that a lyric sheet is not included with the album, as the accents and the mix tend to obscure the words. Sometimes, though, this ambiguity heightens the effectiveness of a song.

The strength of this band lies in the fact that they don't use their synthesizers to simulate other instruments, and yet they don't use them to make freaky, spacy sounds. "Stanlow", for example, has an ending that sounds like a factory closing down.

"Organization" is a fun album, and I heartily recommend it.

E. Eccles

Constitutional

Here we go again. Despite the belief of many Canadians that we should have our own constitution, in contrast to the British-controlled British North America Act that presently serves as a pseudo-constitution, the government is encountering some rough going in its attempt to bring home the constitution.

According to some polls most Canadians would like our country to have its own constitution with an amending formula which would not require British consent. Though there are some philosophical problems over including an entrenched Bill of Rights in the constitution, most groups appearing before the Parliamentary committee concerning the constitution strongly favoured a Bill of Rights and in fact wanted the original bill strengthened to give us more rights and to lessen discrimination. Also it has been agreed to by all provincial premiers (at least at one time) that citizens of Canada should be able to receive education for their children or themselves in the official language of their choice (English or French) wherever minority numbers warrant. Also a close look at the constitutional legislation proposed shows that the basic structure of government with basically the same division of powers between the federal and provincial governments will continue. The proposed Bill of Rights takes powers away from the Federal government as well as from the provincial governments. These powers are not given from one level of government to the other, but to the individual citizens of Canada. The proposed amending formula is basically the same one agreed to by all governments at a special conference in Victoria in 1971. (Quebec and B.C. later backed out of the agreement.)

However we see that the Federal Progressive Conservative Party is vigorously opposing the constitution proposals. Six provinces are taking the Federal government to court on the issue. Some members of parliament and titled lords from Britain are stating that the British parliament will refuse to grant Canada control over its own constitution. Also a different poll from the one mentioned previously seems to indicate that Canadians from all sections of the country oppose the constitutional proposals (or perhaps the way they are being implemented).

Could it be that the Federal P.C.'s oppose the constitution because their embattled leader needs some issue to unite his party in opposition against Trudeau, and thus retain his party's support? Could the premier of Quebec feel that the settling of the constitutional issue would remove one symbol of foreign domination and thus lessen the support for separatism in his province? Could the premiers of Alberta and Newfoundland fear that a new constitution without a change in the division of powers in favor of the provinces hurt the provinces' in a grab for

greater economic power and more money? Could it be that British parliamentarian want something to feel important about that would take their minds off of Britain's own problems? Perhaps. On the other hand the opponents of the current constitution proposals could have valid arguments. Perhaps they feel that it is no use patriating the constitution unless substantial changes are made first in the way the country is governed. Maybe they are right. It would be nice to see some powers redistributed and reform of such things as the Supreme Court and the Senate (perhaps an elected body with fairly equal representation by province).

We must be reminded though that Canada has been trying since 1927 to get unanimous agreement between the federal government and the provinces on the matter of the constitution. They have even failed to agree on a basic minimal patriation package that basically leaves things unchanged. (Yes there is a new Bill of Rights, but I have difficulty seeing such a thing as bad or as a change in the distribution of powers.) The amending formula seems fair in that unanimity is not required but that each of the four major regions of the country will get a veto. I approve of the idea of referendums to break vetos. It would be good however to give provinces the right to initiate amendments and referendums on the constitution and to give the citizens the right to petition for a national referendum on constitutional issues.

While it is unlikely that the provinces will ever agree to the current proposals, it may be a good idea to put the proposals to a referendum, especially if further blockage occurs. However I would like to see the constitutional issue settled soon, so that other problems can be dealt with. I would hate to think that Britain would still try to block our constitution in their parliament. They wouldn't seem to have much grounds if the Canadian Supreme Court ruled in favor of the proposals. While I am not much of a monarchist, Queen Elizabeth has been good to Canada and I have nothing against the British people. I would hate to see a repeat of the bad relations suffered with France immediately after DeGaulle spouted off at Expo 67.

The weird thing is that if this patriation issue is settled soon I believe that in a few years people will tend to minimize the present acrimony (especially after Trudeau retires) and generally will feel good with the fact of having their own constitution. However if the matter is not settled soon, I worry about the serious consequences that may effect our country. I know there are some who feel the opposite way, however I ask them to look at the proposals for their own merits and not which persons or party happens to be supporting them.

J.J.Long

Galumphing Gourmets

The Gypsy Cafe 84 King Street North, Waterloo.

Yet another small spot with surprisingly good food. This unprepossessing cafe in downtown Waterloo abounds in delicatessen specialties. Ranging over the gamut of occidental cuisines, this long, narrow restaurant offers a broad though limited selection. Try, without trepidation, any of the four soups offered. The goulash is a meal in itself and the smoked oyster soup with spinach is very tasty.

Next, there are several salads which can also be considered for a light lunch. The e is a good Caesar, and the guacamole is spicy, with plenty of raw vegetables and tortilla chips.

The chicken, schnitzel and sandwiches are quite acceptable. The vegetables served with the entrees are done to perfection, with the exception of the home fried potatoes, which have been more than somewhat scorched on two recent occasions.

Desserts consist of home made cakes and other delicacies, made in the Viennese style. The black forest cake is loaded with cream and whole black cherries.

Reservations are not taken, and, like other good, but small places, line ups are not uncommon. The Gypsy opens for supper between 1700 and 1730. It is advisable to be on hand soon after opening.

The service in this unlicensed gourmet haven is casual, and could be called slow. It is excellent for leisurely dining.

Prices vary, but most entrees come in two portion sizes. In general, small portions are \$4.00 and large ones another dollar.

Rating: 2.0 bunnies.

Previously Rated.

Cassidy's 405 King St. N. (at Weber).

A moderately priced western-style eatery. Foods range from steaks to salads. A good spot for vegetarians, as the salad bar is eclectic. Exceptional value for Sunday brunch at \$5.00 per person, unlimited hot and cold buffet. Licensed, major credit cards. \$8 - 10.00 per person.


2.0 bunnies.

The Corkscrew 400 King St. W, Kitchener.

A relatively expensive eatery in northern Kitchener. Good recursive salads, but really only a place for the well-heeled carnivore. Licensed. Major cards. \$10 - \$15 per person without drinks.

1.7 Bunnies

jwinterton et al.

FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
20	21	22	23	24	25	26
← FED FLICKS STARTING OVER →	← FED FLICKS F.M. →	1 MARCH	2 LAST DAY TO SUBMIT LOGO TO INTRAMURAL DEPT	3 CO-OP INTERVIEWS ← END	SILENT RUNNING CINEMA GRATIS	
27	28				4	5
	← FED FLICKS F.M. →	COMPUTER CHESS MATCH MC 300B -MORNING-	← PRE-REGISTRATION PICK UP STUDENT RANKING FORMS		SERPICO	FALL/WINTER 1981-82 - CINEMA GRATIS
6	7	8	9	10	11	12
→ TRY A GRIDWORD FOR QUICK RELAXATION!		CHECK FINAL EXAM TIMETABLE FOR CONFLICTS!		mathNEWS PRODUCTION	JESUS CHRIST SUPERSTAR --- CINEMA GRATIS	
13	14	15	16	17	18	19
← another one! →				mathNEWS PRODUCTION MC 3038 7pm	THE MAN WHO FELL TO EARTH ~~~ CINEMA GRATIS	FINAL EXAMS ARE COMING! → START STUDYING

NOTEPAD

Ah! It's been a long time. Many of you may not remember this column (many of you may not want to), but I've chosen to force it upon you once more. For those of you who've read this far and want to know what you're getting into I'll give you a little intro.

NOTEPAD is a column dedicated to the trials and tribulations of those of us who have been foolish enough to expose ourselves to the indignities of personal computing. The topic of this week's column is:

PRINTER PARANOIA

For anything more complex than a Coleco football game you've simply got to have a printer. This is something you discover quite quickly when trying to debug a 40 line subroutine on a 32 line video screen.

Most micro owners relegate the printer to that lofty position known as "desired peripherals". You see, as opposed to most other pieces of computer hardware, printers are still largely mechanical devices and thus their cost is not dropping very fast. This means that while little 5 1/4 inch diskette drives can be picked up for \$500 a shot, a brand new printer will probably run you about \$1000 to \$1700. Or about the price of 2 diskette drives and 48K of memory.

So it's more than understandable that most of us have 2 diskette drives and 48K of memory....but no printer.

The things a desparate hobbyist will go through just to get hardcopy are both amazing and amusing. One friend of mine would display portions of listings on his screen, then take a Polaroid snapshot. When he found that film costs were becoming prohibitive, he devised a neat little segmented box that fit over the lens of the camera, allowing four screens to be superimposed on a single photograph. This cut film costs by 75% but made things difficult to read.

Many people resort to prowling the corridors of Surplus & Storage on campus, hoping that some department will decide to throw out an epileptic 2741 that he or she might pick up for thirty to fifty dollars.

In fact, on campus 2741's (you know, those crude little IBM selectric terminals in MC3018) comprise a large number of the local hobbyist hardcopy devices. These

things are generally prone to frequent breakdowns and parts are almost impossible to find. Besides, they're made by IBM!

Another common (i.e. cheap!) source of hardcopy comes in the form of out-of-date teletypes formerly used to irritate data entry operators. These are incredible marvels of mechanical engineering. As one friend of mine put it, teletypes were constructed by a dying breed of people who understood bent spring steel the way we understand bent trees. (Hmmm. Perhaps a poor analogy.)

My brother managed to acquire one of these marvelous little gadgets which worked with an archaic character code known as BAUDOT. The teletype prints at about 50 characters per second and is missing such trivialities as a lower case alphabet and dollar sign. But for \$50 it was better than nothing.

About three months later a chain of events began that would eventually land a printer in the very lap of your's truly. One of my Aunts worked for a company which decided to get a new system, including a new printer. This meant getting rid of the old one which had been fully depreciated long ago. Thus, as the company accountants explained it, if they tried to sell the printer for any reasonable sum of money it would appear on the company books as capital gains and push them uncomfortably close to a higher tax bracket.

The solution was to give the printer away....to my Aunt.

This story reached me two days later in a rare conversation with my parents (well, how often do YOU call home?). Apparently the printer was up for grabs by either my brother or myself. This meant a call to old buddy boy.

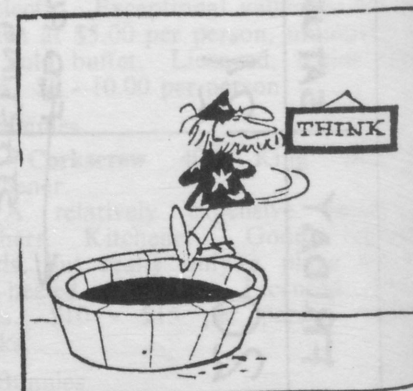
My reasoning was that my brother already had a printer and so I should have this one. His reasoning was that he'd be more than willing to give me his old printer and take the better one. Hmmm. Deadlock. Time for arbitration.

My version of arbitration was to drive down to Toronto the next day and grab the printer before my brother could get it. He hasn't said anything about it yet so maybe he doesn't really mind.

Maybe.

Still...I'm afraid to go home.

-dean



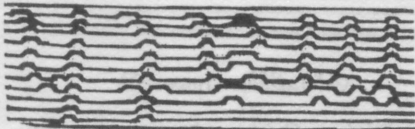
Budget Tidbits

This was going to be an article on why it would be a good idea for companies to pay some of the costs of co-ordination. After all, it is pretty much like an employment agency, and it *did* have **1.6 million dollars** allocated to pay for it in the 80-81 budget. When one considers that, for the same year, the budget for the entire Department of Computer Science was \$1.1 million, one gets a feeling for the amount of money involved.

I thought it would be easy to get the figures I need to write a good article. Just get a copy of the 80-81 budget, right? That's what I did, but, while it's not exactly the Dead Sea Scrolls, the budget is not easy to follow. No-where does it mention, for example, the total amount of co-op fees that were collected. But, to be fair, it wasn't written for mathNEWS reporters. The answer: to talk to whom-ever prepared the budget. We'll see if that can be arranged for next week.

In the meantime, here's an interesting bit of information from the 80-81 budget. Did you think student-teacher ratios were particularly high in Math? You were right. In 78-79, they averaged 17% above the average for the university (at 26.3 vs 22.5, computed as the number of full-time equivalent students per full-time equivalent faculty). For the previous four years, we were 5%, 9%, 13%, and 18% above the norm. 78-79 is the last year for which figures are available.

prowley



Faculty Notes

Pre-registration for Fall 1981 and Winter 1982 academic terms will be held during the week of March 2 to 6, in 1981.

The April 1981 preliminary timetable for this semester's final exams will soon be posted outside the Registrar's Office in Needles Hall and on the Faculty of Mathematics bulletin board in the main hallway of the third floor in the Math and Computer building. (It may already be posted by today). You should report any scheduling conflicts to the Registrar's Office promptly.

First year Regular Math students interested in transferring into a Co-op Math program may pick up a combination information sheet and application form from the Math Undergrad Office in MC 5115.



Logo Contest

it's time for a change

The University of Waterloo Intramural Department offers you an opportunity to be the designer of the first official Intramural logo. The logo should represent some or all of the aspects of the Intramural program as well as the spirit of the department. The degree of clarity is up to you.

There is a \$25 dollar prize for a design that can also include a phrase and another \$25 dollar prize that may be awarded for an acceptable name change or slogan for the department.

Even if you don't think you have artistic talent, you can still submit your ideas in a possible name change or slogan. The name "Intramural" does not have to be included. It is possible for one entry to win both prizes, but you can enter for each prize separately.

The winner(s) of the contest will be chosen by a committee comprised of the Intramural directors, the publicity coordinators and the Men's and Women's Intramural Council executives. The Intramural department has reserved the rights to declare a winner and award prizes as appropriate. If they feel that none of the entries is suitable no winner will be chosen. If a new logo is selected it will be used on flyers, buttons, and T-shirts of the Intramural department.

The contest is open until Monday March 2, 1981. Full-time students of the University of Waterloo and non-students who have Intramural memberships are eligible to win. The logo selected will become the property of the corporation of the University of Waterloo.

Entries are to be submitted to Peter Hopkins, in Room 2040 of the Physical Activities Complex. For further information contact the Co-Publicity director Sharlene Murray also in Room 2040 of the PAC, or call U.W. (882-1211) extension 3532 or 886-1247.

An Invitation

All faculty members, students, and staff of the university are invited to submit artworks for the U.W. Leisure Time Artworks Exhibition to be held in the U.W. Arts Centre Gallery located in the Theatre of the Arts in the Modern Languages building.

The exhibition will be held from March 19 to April 16. Films and videotapes are not accepted, but other media such as painting, sculpture, printmaking, drawing, calligraphy, ceramics, photography, needlework, carving, and weaving will be accepted.

This is an opportunity to share with the university community the artworks which you created in your leisure hours. This is an open show for wall-mounted and display case items. There will be a limit of three works per person subject to gallery space limitations.

Those wishing to exhibit items are asked to deliver them personally to Modern Languages Room 125 or 122 between 8 AM and 6 PM on Thursday March 12, or Friday March 13. For further information you are requested to contact the Arts Centre Gallery at U.W. extension 2439.

Let's all go to U of W,
Math's more fun at U of W.
We'll integrate a function,
Or maybe two or three.
Pick a perfect transform
From the Fourier family.

Let's all go to U of W,
I can chug-a-lug, can't you.
Go to the bar!
Total the car!
At U of W

22:17:38 TUESDAY night. Well we finally finished this thing on the same day as we started it!! (That is an accomplishment!) Production workers include William Hughes (photon, previewing, typing), JJ Long (preview, typing), Dave Welbourne (graphics, grid-ed), Mike Gore (graphics). Writers include Lee Dickey (chess challenge), E. Eccles (filmwatch, platter splatter), Brad Templeton (mono), Peter Rowley (Budget), Dean Edmonds (notepad), Marnie Shaw (social), M Adringer (deadringer), J.C. Winterton and MFCF dinner group (gal gour). Goodnight joanne (commands, demands, whips etc.)

MATH WORD SEARCH



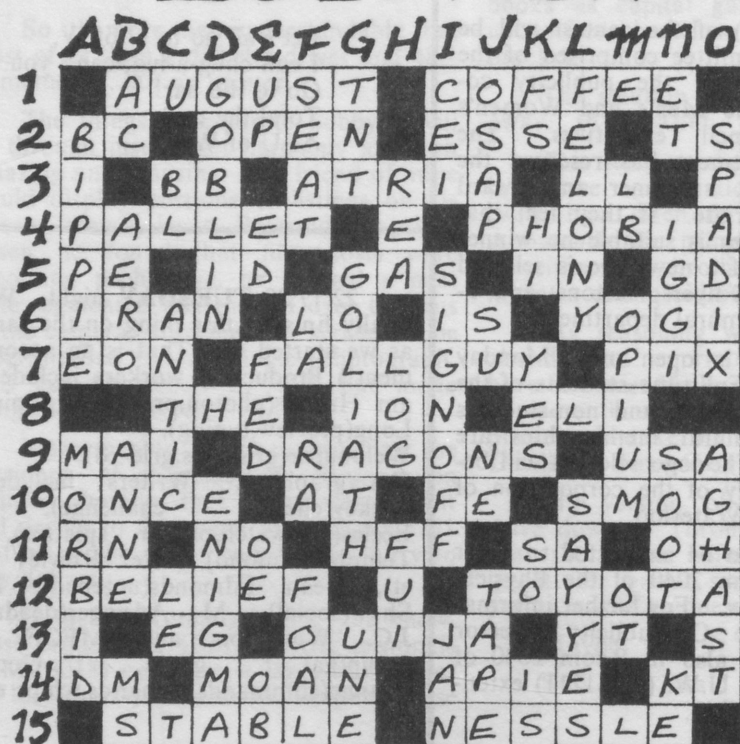
Answer: 16 letters spelling a programme in the Faculty of Mathematics. (Note: no words are contained in each other. i.e. SET is not in TEST though they may overlap.)

Search Words

ABELS	DIAGONALIZATION
AREA	CALCULUS
ARC	EIGENVALUE
HOM	MATRIX
DARBOUX	ITERATIVE
EXACT	DISTRIBUTION
BMATH	MODEL
NIL	DERIVATIVE
NULL	INTEGRATE
DEGREE	TORUS
FINITE	EVOLUTE
EVEN	EULER
NORMAL	UNIT
NEST	LINE
AM(Appl Math)	TOPO
PM(Pure Math)	ALGEBRA
LOOPS	INF
STAT	SUP
CO(Comb & Opt)	TESTS
CONVEX	SET
VOID	KT(Khun-Tucker)
NEIGHBOURHOOD	DUAL
OH	

Divine Gridword

SOLUTION



≈ Θδημββδμ Δηωωγδλ

The Divine Gridword was correctly completed by 5 people: Ashok Patel, Michael Stephenson, Tom Tippet, D. Spence and H.J. Kommel. Our winner of a t-shirt is Ashok. The other four winners will receive buttons. Please come to a mathNEWS production meeting to claim your prizes. Apologies come from our gridword editor who promises to learn the spelling of 'nestle' and to give correct clues.

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OR