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MATH
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Woodstock was fed up. Sick and tired of being depicted in Charles Schulz cartoons as either (a) flying upside down (b) being blown away by random gusts of wind or (c) being whomped on the head by Snoopy's tennis serves, Woodstock decided to get away from it all. Naturally, he headed to Waterloo - he had heard rumours of the beautiful campus, and decided to investigate. And indeed he was truly content - the grounds here are lovely - until one day he made a fatal mistake: he went too close to one of those guys wearing green uniforms. He was captured, and served up as....

LORD OF THE DISKS

The Graduation

Things were buzzing (other than those Mathobbits on pipweed) in the Southern Quad of the Village Two in preparation for the momentous occasion of Bilboth's graduation. There was much preparation to be done to make the quad ready for the spectacular celebration that was typical of most All-Nighters at the Two.

Everyone in the Village was invited to attend, and each in his own way was getting prepared to celebrate Bilboth's graduation, and with no less jubilation Frosho's passing grade in first year Algebra.

Late one evening, a stranger appeared amidst the scurrying Mathobbits at the Village Two; a tall grey nobleman clad in a long, flowing grey cloak. His long white beard conveyed the fact that he had spent ages at his life's business (not unlike the looks on those who really do Calculus assignments). A huge red book was tucked neatly under his arm (THE CALCULUS), as he most elegantly rode forth and parked his steed (a CCM *Tour de France*) outside the entrance to the quad. Some of the more naive frosh (is that redundant), knew not who this noble mathie was, but to Bilboth, and his room-mate Frosho, it was none other than the pure mathie Mathalf the Grey.

There was much awe as he passed quickly down the halls (rumor had it he got 100 per cent in Math 140A) to Bilboth's room. He knocked succinctly (a succinct knock?) and Bilboth ushered him quickly in.

"Welcome, to an old friend and noble pure mathie," greeted Bilboth, "I am glad you could come to my party."

"Bilboth, good Mathobbit, the happiness is all mine," replied Mathalf, "I wouldn't miss your party for anything in Middleloo. I don't get to many parties." (Hence the 100 per cent in Calculus)

Bilboth introduced his venerable friend to Frosho, and the two old mathies discussed the excitement of past adventures (like CS 250). The old friends stayed up very late that night and many old stories were shared with Frosho (e.g. the days before WIDJET) before the two crashed around 6:30 a.m.



The next day, the eve of Bilboth's graduation, was quite unevenful except for the arrival of thirteen dwarves into Bilboth's company. The arrival of the dwarves sparked little distress in the minds of most Mathobbits, since such uncouth boorish types often stumble in during the preparation for some sort of party.

Finally it was the day of the graduation. The partying started early that afternoon (even earlier than most Fridays in the Village). Early that evening, Mathalf began his fireworks display with several proofs by Mathematical Induction and even an extended explanation of Linear Algebra based on abstract number theory.

After the stage show, Bilboth and his friends sat down for a large supper in the cafeteria. The whole place was buzzing (as much due to pipweed as to the excitement of the evening). At the end of the elegant meal, Bilboth rose to make a speech.

"Thank you, all my loyal friends for coming here to celebrate my graduation." (Many cheers, hoorays, mathematical integrations)

"I now stand before you to say goodbye." (Gasps, disbelief, $0 = 1$)

"I plan to take my doctorate elsewhere."

His speech finished, he slipped THE DISK into LOAD position, and vanished into null string before their eyes.

People Watching

or

Where Are The Best Spots On Campus To See People?

Since you're going to be new on campus this fall, you probably want to know where the best spots for girl/guy watching are. The following is a short list of a few selected locations.

Perverts Hill: This is a really choice location. It's just north of the Grad Club and just West of the Engineering Lecture Hall. It's a nice grassy knoll that is supported on one side by a stone retaining wall. Many people walk by here: it's the most common way to get to or from South Campus Hall and the best way to get on or off campus for those among us that live to the south east of campus. Long famous for large numbers of artsies and engineers.

Rec Beach: Another good spot is just outside the PAC near the wall between Red North and Red South. Again, it's a grassy hill but without a retaining wall. Best place on campus to see Villagers and Jocks/Jockettes.

Campus Centre Great Hall: Inside, but well-lit with skylights. Almost everyone passes through the C.C. sometime

during the day. Good place to meet your friends. Dominant life-forms include Turnkeys, Red-Hacks, and those poor homeless souls with no place to call home (especially after midnight). Strategic locations: near Scoops or the entrance to The Bombshelter pub.

The Lawn: There's lots of lawn around but the one that I'm referring to is the one between Biology 2, Math & Computer, and the Campus Centre. A very high traffic area. Attracts Villagers, Bible Belt-ers, people from Sunnysdale, Robinwood, and points north, along with Scientists, Mathies, and Jocks. Lots of sun and a good place to play frisbee when the traffic levels are low.

Pubs & Dances: Probably your best chance to meet new people. Always lots of fun at a low cost and, if you don't get lucky, at least you can get drunk. A word to the young: don't forget your older brother's or sister's id.

Line Ups: You're going to be there long enough, you might as well enjoy the scenery.

Class: Usually the Prof is the least interesting person in the class. This is usually evidenced by large numbers of people reading, eating, sleeping, looking around, or not being there.

As we all know, there's more people on campus in the fall than at any other time of the year. Now's your chance, go for it!

MathSoc and What It Does

If you talk to anyone not directly concerned with the operation of MathSoc, it is quite possible to get a wrong impression of what MathSoc is really like.

Many people condemn MathSoc because they base their opinions on what has gone on in the past. I sympathize to a certain extent with these people: I was a Frosh in '80, and I have seen enough for anyone to form a bad opinion.

However, MathSoc has had a facelift. This is the result of the work of people who have taken it upon themselves to get the organization running again. These people have been fairly successful, considering the problems faced by the Society. Perhaps the most difficult problems of all were faced when this work started. However, even if the first term has been difficult, it is nice to know that we are at least starting something going, instead of letting the problem roll merrily along.

The most common question around, still, is 'What does MathSoc do?' The answer is that MathSoc provides a number of services for the students. Perhaps the reason that it is not heralded is because people either don't know about it, or because they don't bother to find out, or actively participate in MathSoc events.

The range of activities is quite large. The C&D stand on the third floor lounge is one of the more popular ones; it is a MathSoc venture, and a successful one at that. Other similar activities includes pubs. Athletics involves a number of students in intramural sports.

MathSoc also provides other types of services. These range from funding organizations such as the CSC and mathNEWS, to providing the office-type supplies generally needed in the ten minute break between classes, especially staplers and a hole punch. The telephone is also borrowed extensively.

All of these are activities which MathSoc is either indirectly involved in, or, more likely, directly responsible for. It can be helpful, enjoyable, or both, but in either case, students are an essential ingredient, both in front of and behind the desks.

DICHOTOMY

People are divided
into two classes:

Those who divide people
into two classes and
those who do not.

Orientation Week

Hello Frosh:

The following is your Orientation Week Schedule for events happening in and around the Math Building (the big grey concrete one...). Other societies will no doubt have events as well, but they will fall far short of MathSoc's events. We hope you will enjoy the events we have put together for you.

MATH SOCIETY ORIENTATION WEEK EVENTS

Wednesday, Sept 9, 1981

- 21:00 - 'Meet the Profs' Wine and Cheese/Bufferet
the location has not yet been finalized

Thursday, Sept 10, 1981

- 12:00 - Scavenger Hunt Starts - Math 3rd floor Lounge
- 14:00 - Tug-of-War Challenge - Math/Biology Field
- 19:00 - Movie Night - MC2065 or 2066

Friday, Sept 11, 1981

- 12:00 - The Incredible Meet the Log Photo and Parade
Math/Biology Field (weather permitting)
- 20:00 - Frosh Pub - MC5136

Saturday, Sept 12, 1981

- 12:00 - Scavenger Hunt Judging - Math 3rd floor Lounge
- 16:00 - Frosh Barbeque - Columbia Lake Field or Island

We here in MathSoc hope you will (a) attend, (b) participate, (c) enjoy (a lot). Most of the events are self-explanatory, and a whole lot of fun, but there are warnings that should be made. For example: if the Scavenger Hunt requires that you 'obtain' a Concorde, please don't try to land it ON the Math building, or when we say that there will be a Frosh Barbeque, please don't throw your fellow frosh into the fire-pits...

There is one thing I feel I should warn you about. What I'm talking about is, well, those 'people' (they say they're human...) that inhabit the engineering buildings, the dreaded ENGINEERS!! They will deny anything that we say about them, but don't despair, it's all true! Engineers are (generally) loud, armed (but not dangerous), tend to drink large amounts of alcoholic beverages, and never, NEVER come in bunches of less than 5 (that's so they can support each other when they return from a drinking binge).. There is one other thing which should be mentioned, this is of course the engineering mascot, the Ridgid Tool. This object is a 120 pound, 5-foot, silver painted wrench which goes on parade through the math building several times a year, chained to at least two engineers. Well, now that I have told you about some of the highlights of life in and around the University, please come out and have some fun.

The Mathematics Society office is located in MC 3038. If you have any questions just come in and someone will be able to help you with whatever is troubling you.....we hope.

WHAT PITS IS OR ISN'T OR MIGHT BE...

Interlude

"You don't love me anymore!"

"Huh?"

"You heard me! You hardly even notice me anymore - why, five years ago you'd have jumped when you saw me coming in! And now? Now, all you ever do is come home from work, mumble a few perfunctory words of greeting, and then disappear into your study for the rest of the night - sometimes I think that you're not human..."

"What!?"

"You're just a MACHINE, that's what you are! A cold, heartless, unfeeling, uncaring piece of rusted metal that's been programmed to give comforting responses but is incapable of the slightest depth of feeling towards other human beings!"

"You know that's not true, dear - you're just imagining things."

"Imagining things...!!" Angrily, she exits from the room. We hear the sound of a door slamming, followed by the sound of angry footsteps retreating down the hall. He sits in his study, remaining silent for a moment, with the only sound in the room being the distinctive hum of flowing current; then, with a sigh, he flips a switch near his shoe, and red lights start blinking on and off in the vicinity of his eyes as he lowers his retractable pods to the floor and glides over to his desk to continue with his work....

And for those of you who throw nickels around like manhole covers, mathNEWS proudly presents.....

THE MISER'S PAGE

Local Attractions

mostly free

but, some not worth visiting

This article holds no pretense of being in any order. Here goes.

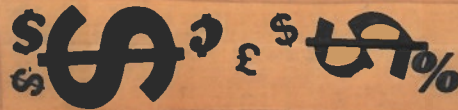
The Campus Centre. Music, free movies, various tournaments, crafts fairs, exhibits, live entertainment (on occasion), relaxation, turnkey desk (they do anything!), change, food, maps, info, items for loan, lounges, piano, table tennis, stereo room, information boards, legal resource office, media centre/Imprint, birth control centre, used bookstore, ice cream stand (Neilson's - the best there is, and cheap too), and of course the campus pub, the Bombshelter (no cover at most times for Feds). The best place to meet interesting people. Even the odd hooker...

The Centre in the Square. Kitchener's arts centre, newly built. Magnificent stage, one of the best in Canada. Big name acts, usually short (one to three nights) stands, big name prices. Also includes the K-W art gallery, Frederick Street at Otto Street, Kitchener.

Woodside National Historic Park. Boyhood home of ex-Prime Minister William Lyon Mackenzie King. Old country estate with very nice restoration, downstairs museum and upstairs rooms in period style. Not quite as nice as Casa Loma, but it tries. Open year round. Wellington Street North east of Lancaster Street.

Bingeman Park. All-purpose Xanadu for Kitchener's young people. Nice dining rooms and ballrooms, roller skating arena, camping, mini golf, water slide, bumper boats, horseshoes (yeeah!). Go karts too. Victoria Street North east of Kitchener (Highway 7).

UW Arts Centre. Shows are put on at UW Humanities Theatre and the Theatre of the Arts (Modern Languages building). Subscriptions available. This year's productions include "You're a Good Man Charlie Brown," "Toronto, Toronto," "Sleuth" with Barry Morse, "Letters Home," "An Elephant in my Pajamas" (Groucho Marx played by John Bay), "My Astonishing Self" (Shaw festival prod'n), "Leacock at Leisure," "Oscar [Wilde] Remembered," and concerts by Andre Gagnon, Jim Galloway, Beth Anne Cole, Bob Greene, and dance productions by Frulica, Les Ballets Jazz, Dancemakers and The Pavlova Celebration. Also "Billy Bishop Goes to War." Much more reasonable prices than the Centre in the Square, and closer to home. There's also an International Film Series you might like.



African Lion Safari. For those with a car, a 500-acre drive through park with tropical beasts. Highway 8 at Rockton, between Hamilton and Cambridge. About 30 miles southeast of Kitchener.

Kitchener Mount Hope Cemetery. Ever visited a cemetery? Here's a good one. Lots of familiar names like Schneider (meat), Pequegnat (clocks), Kaufman (shoes), etc. from long ago. Nicely treed. End of Linwood Avenue, off King Street near the K-W Hospital.

Doon Pioneer Village. A historical park supported by the Ontario Government and the Grand River Conservation Authority and the Municipality. Many old restored houses, county artifacts, art collection. Homer Watson Boulevard, south of the Conestoga Parkway.

Kitchener and Waterloo Farmers' Markets. Not to be missed by any student at UW. Kitchener's is easier to get to, but Waterloo's, being more Mennonite, is better. Both have ample selections of yummy meats, cheeses, breads, sauerkraut, apple butter, jams, Kochkase (cooked cheese, local specialty), shoo-fly pie, and lots and lots of "grandfather's recipes". In case you can't find something, there's a Zehrs next door to the Kitchener Market! There's also a Sunday craft market at the Kitchener building, Frederick Street at Duke Street East. Incidentally, you can pick up lots more brochures at the Kitchener Market, which is open Saturday mornings all year round (I mean *early*, like 5!) and Wednesday mornings in the summer, telling you more about K-W. Others are available at the Tourist Information Centre across the street at 67 King St. E. A good one to look at is the one listing this area's many factory outlets. Prominently, the Arrow Shirt Co. on Benton Street south of King Street and the Forsyth Shirt Co. on Young Street north of King Street in Kitchener have good sales on Saturday mornings.

Waterloo Park. Between campus and downtown is a vast jungle of bunnies and mallard ducks in which only the very toughest survive. There are swings, tennis courts, baseball diamonds, a (sometimes dry) lake with paddle boats for hire, and a rickety old bridge which will someday collapse into said lake. By far the nicest and fastest way between UW and vibrant downtown Waterloo, the only downtown I know whose biggest store is a K-Mart.

Getting Cheap in your old age??

Or maybe your parents aren't footing the bills? Well then, you really should get to know the places in town where things are cheaper than at Eaton's! If you need shoes or clothes, it's not hard to find buys.

Shoes are made in Kitchener at Kaufman, Bauer, and Greb; Kaufman's is on River Rd. near the Conestoga (out of the way). Greb's is at 5 Michael St. just off Victoria St. S. near King St.; they also stock an incredible selection of Kodiaks and Bauer running shoes and skates. The only place to buy shoes! There are lots of other factory outlets; you can get a nice list at the Tourist Information Centre (Chamber of Commerce) at King and Frederick, behind that cr-r-r-azy glockenspiel.

There are some discount stores not far from the university; you can get a large selection of good buys at the Family Fair store at Waterloo Square. You'd be surprised what they carry. Crazy Kelly's warehouse on Weber St. N. just west of King St. N. (sounds odd, but true...) carries a large selection of televisions at low cost. No showroom but good prices. Right behind K.K.'s is the Buns Master Bakery, with a tasty selection of fresh breads and buns in bins, as well as the odd packaged thing.

All supermarkets in town have worthwhile specials from time to time, usually on Mondays and Tuesdays. Dominion, though the closest, at Westmount Place, is not the best. Zehrs at Parkdale Plaza (Weber St. N. at Bearinger Rd.) is fairly good, but the real buys (and ambience) is at Central Meat Market (King St. W. at Linwood Ave., just this side of Wellington St.).

For those who prefer to stay near campus, or on campus, there are some really excellent buys nearby. Scoops ice cream tastes better and costs less than half as much as Baskin Robbins', and what's more, they're open during Cinema Gratis on Wednesday nights at the C.C. You should go sometime! The [sic] Record Store (not at all a sick record store, really) in the bowels of the C.C. next to the Bank of Commerce has special buys for Federation members (of which you are one until you **really** get cheap and take back your Fed fee). You pay \$1.00 less than the price you see, and occasionally you may appropriate a poster or two from their eclectic array.

continued on page 5

See also article on page 16 (or thereabouts)

continued from page 4

Down at South Campus Hall, there is (as you will soon know very well) a **Book Store**. While you may detest its early-term lineups and uproariously high prices on textbooks, you will find that all this is not the fault of its administration. It is actually a very good bookstore and stationery store with some good buys. Sometimes, though, books are cheaper at Coles. Oh well. Across the walkway, and to the right, there is a gift shop for sentimentalists. You might be surprised to find that it also sells all sorts of official Waterloo shirts and sweatsuits and such, sized from Graf Zeppelin down to a two-year-old's. (Things like leather jackets and windbreakers are sold at the Campus Shop, back downstairs in the C.C.)

Hiding in the corner of SCH is a little bake shop, run by the folks who do the cooking for the Festival Room upstairs (a sometimes execrably bad coffee shop). But be not dismayed. You can get some excellent pastries, as well as loaves of bread and submarine sandwiches on occasion. They are often cheaper than C+D, I regret, and are open all day on weekdays. Great!

In closing, the best thing to do, in this writer's opinion, is to ask those who know: especially those in third and fourth year. You may even find yourself in some interesting places that aren't cheap. You may also enjoy exploring. There are a number of parks and architectural works of art in this city (just try and find them!) which are definitely free. Bring your frisbee.

Frosh T-Shirts

As a frosh one is expected (or forced, depending on the vileness of that year's Social director) to obtain and wear a frosh t-shirt. Past years have produced shirts of varying degrees of originality and vulgarity.

- 1977: "Math Frosh... and proud of it!"
- 1978: "I'm so happy here, I could just [bring forth offal]." (Not popular with the faculty...)
- 1979: "You must be mad, or you wouldn't have come here." (Quote from Alice in Wonderland.) Probably the best produced in recent years, at least the classiest.
- 1980: "Math Frosh 80."

We at MathSoc promise a far, far better t-shirt than that last one. We can't tell you what it says, or what it'll cost, but we can tell you that it will be your cheapest, best-quality and most-worn t-shirt, of which you will become quite proud as you grow older and grayer and hordes of upstart froshies with *their* t-shirts start to ask, "what year did you get here???"

The FASS Frosh Quizzie

Well folks, you're going to have to get used to writing quizzies. This university loves to pester you with piddling little tests that count half a per cent towards your final mark if you do well, but count as thirty black marks against you if you flub them. These annoyances are commonly known as quizzies. (Said one young lass to her professor, "If that was one of your quizzies, I'd hate to see one of your testies.")

At any rate, in the interests of preparing you for the many, many quizzies you'll be writing in the next three, four, five, or twelve years, the FASS Theatre Company hereby offers you a **SURPRISE** quizzie that you must pass in order to be admitted through the front gates of the university. Names and mug shots of those who flunk will be given to all campus security guards along with orders to shoot to kill.

Good luck!

Questions

- (1) What four-letter word begins with 'F' and refers to a way to enjoy yourself with other persons?
- (2) What enjoyable but unnatural act is said to cause insanity, blindness, and hairy palms?
- (3) Is it possible to expose yourself to hundreds of people in the dead of winter without getting frostbite?
- (4) What's the difference between a make-out artist and a make-up artist?
- (5) Where's the best place on campus to go for a good time (wink, wink, nudge, nudge)?

Well, that's the test. Now put down your pencils, pass your test to the person behind you (last person in the row to the person in front), and let's get ready to mark. Here are the answers.

Answers

- (1) The word is FASS. FASS stands for Faculty, Administration, Staff, and Students, the people who get together every year to put on the funniest show on campus. You can enjoy yourself watching it this February, but you can enjoy yourself even more by coming out and being part of the madness. The organizational meeting is Tuesday, September 22. Watch for our posters to tell you where it's going to be. By the way, when we say 'meetings', we almost always mean 'parties'. We'll come back to those later.
- (2) The unnatural but enjoyable act is writing for FASS. You see, before the show goes on next term, we have to pull together a script filled with jokes, puns, and songs. If you've never written before, don't worry; almost everybody else is in the same boat. Even if you aren't interested in putting pen to paper, watch for our posters and come out to our writers' brainstorming sessions, just as an ideas person. Don't worry about the side effects of becoming a FASS writer -- the insanity is fun, and the blindness and hairy palms only begin to develop after a few years' overexposure. As compensation for these threats to your mind, all writers will be able to attend FASS's parties (we'll come back to those later).
- (3) Yes, it is possible if you're getting exposure by being onstage with FASS. Acting experience is no prerequisite for being part of FASS's cast. What you need is the enthusiasm to devote your spare time to rehearsing and learning lines. In return for your devotion, you get to come to all of FASS's parties (we'll come back to those later).
- (4) We don't know what a make-out artist is (well, maybe we do, but we aren't saying), but a make-up artist is just one of the people who works backstage each year for FASS. We need people to work on make-up, costumes, sound, lighting, props, carpentry, publicity and advertising, and lots of other stuff. We also need people to organize FASS parties (we'll come back to those later).
- (5) Where's the best place on campus to go for a good time? By now, you should have guessed that good times are to be had for all at our **FASS PARTIES!** In the fall, there may be such things as a coffee house, a hay ride, roller skating, and what not. In the winter, FASS will have lots of real live parties paid for in whole or in part by the proceeds from the show itself.

The point is that FASS is not just an organization that's dedicated to putting on a funny show; it's a group of folks who are interested in having fun and getting to meet other people on campus. If you're interested in the same things (and who isn't?), look for the FASS posters and come out to our organizational meeting (party). It could be one of the best moves you make at university.

What's a CSC? (besides a trig function)

Oh, for a day in May, to sail away, in the yacht, on the bay...

Do you dream of meeting a (yea, thiel) Dalek? Do you enjoy the culinary arts and late-night scenes? Then maybe, if you qualify, and who doesn't, the CSC may secretly have stolen a place in your heart.

The Computer Science Club (CSC) is a club under the Mathematics Society and, we hope, will soon be recognized by the Federation of Students. If it occurs, this dual recognition will be unusual, but reflects the two sides of the club's activities.

Primarily, we exist to allow students interested in computer science to meet together, both formally and informally. This is accomplished by keeping our office (MC3037) open as much as possible and by a series of public meetings, usually held every second Thursday night. Meetings usually revolve around a lecture given by a guest speaker. While most of the speakers tend to come from Waterloo, a varying number each term come from out of town and, in the past, CSC meetings have been addressed by some of the most famous people in the field. To facilitate conversation, doughnuts and tea are served immediately after the meeting; there have been times when the speaker hasn't left the lecture room until several hours after the talk concluded.

The CSC office is used as a gathering place for people interested in talking about computer science and related topics (for example, bicycling!) and as a repository for a large selection of reading matter: manuals from a wide variety of companies and research institutes, magazines (yes, we have Byte!), newspapers (Infoworld and Computerworld) and books. Members of the CSC (membership costs \$1 per term and helps defray meeting costs) may borrow materials from the library; this can be very handy at times. As you might imagine, an environment of this sort provides

an atmosphere conducive to the answering of questions about CS. Feel free, whether you're a member or not, to come and ask questions of the people in the office; there's a reasonable chance that someone has tried to solve your problem before, and an excellent chance that someone knows someone else who has.

Another activity for which there is much enthusiasm in the CSC goes loosely by the name "curriculum review". The CSC's Curriculum Group meets informally, usually, once a week, to discuss the UW CS programme and how it might be improved. Through a student representative on the Department of Computer Science's curriculum committee, your opinions on your courses can be heard.

If you have questions, or suggestions, you can also contact us by intracampus mail (Computer Science Club, Dept. of Computer Science), or by sending electronic mail to our TSS or UNIX accounts (userid csc). We'd particularly love to hear your suggestions for speakers; if you've heard an excellent speaker, please let us know, even if they do live in California.

What is the other side of the CSC? It's the side that looks out to the entire university. Over a quarter of our membership is not in the math faculty. In the past, we've held meetings of wide appeal, and understandable to a large portion of the university community. For example, we've had a speaker talking about the philosophical implications of computer science, and in the fall we'll have a concert of computer music. Finally, all the resources mentioned above are available to the entire K-W community. The computer is one of the best tools we've developed (and certainly the best toy) and we'd like to show as many people as possible that it's certainly not something to be afraid of. Please watch the walls of the Math building and read mathNEWS for announcements of coming meetings; we hope to see you there!

The Warriors Band One of the Bands in Canada

What It Is: The University of Waterloo Warriors Band represents one of the most outstanding traditions in this school's short history. Founded in 1966 or so (which if you have a calculator handy shows that this year is our 15th anniversary), we do a fairly good impersonation of a pep band at Waterloo Warrior football, basketball, and hockey games, and also at such grand occasions as official computer shutdowns, building openings, royal weddings, and lightbulb replacements.

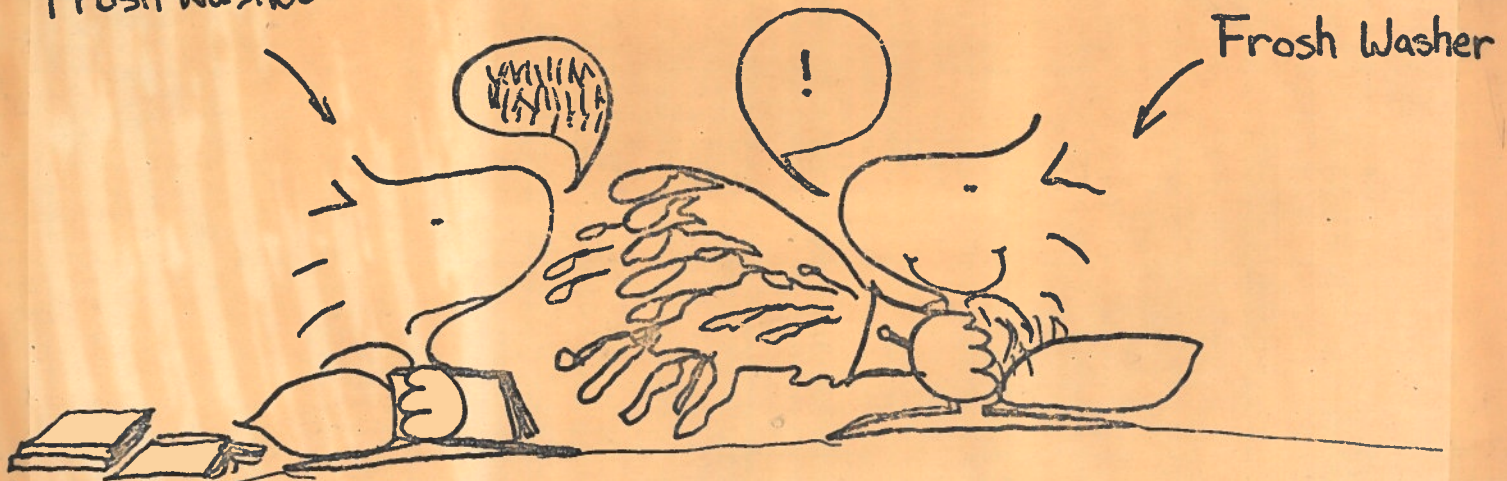
For about the first twelve years of its existence the band plodded along, never taking itself too seriously. Half of this has now changed. We no longer plod along. The habit of having an occasional practice began last winter, to the delight of music lovers everywhere and the astonishment of hard-core basketball fans; the end result was a pep band unequalled in spirit by any other.

Of course, we do not take ourselves TOO seriously, in spite of recent infusions of talented musicians, shiny new instruments, functional music holders and Official Helmets. Everyone, often as many as 35 members in the same place at the same time, enjoys him/her/itself. Why, just look at our repertoire -- classics such as the 1812 Overture, Beethoven's Fifth Symphony, Mozart's Horn Concerto Number 3, The Stripper, and everyone's favourite, the theme to the Muppet Show!

Why You Should Join: Because joining The Warriors Band is a lot of Fun, a chance to travel to exciting places like the Wilfrid Laurier Gymnasium, the University of Western Ontario Football Stadium, or the University of Toronto's Varsity Arena. Because it gives you a chance to

continued on page 12

Frosh Washee



A devastating September phenomenomm...on

Galumphing Gourmets

This article introduces the Galumphing Gourmets. We are a group of Faculty, Administrators, Staff and Students who find ourselves eating out in the K-W area frequently. The articles are put together by Jewinterton, and edited by a varying group according to who has participated in the visits to the restaurant being reviewed. Naturally, all real Mathies will recognize the title as referencing the hero of a great mathematical treatise, the Beamish Boy who went galumphing back. For those of you who still fail to recognize the reference, we refer you to *Through the Looking Glass* by C. L. Dodgson, a mathematician of Oxford, UK.

This column has had its ups and downs in the last two terms, and has now come to the format outlined below. Our avowed purpose is to visit various watering holes clandestinely and then review them with truth and beauty. Persons desirous of galumphing with the gourmets should present themselves with ample supply of that which is Caesar's at MC3013 around 1700 on Mondays, Tuesdays, Saturdays and/or Sundays. We do not guarantee to be going anywhere, but you can always ask.

Recipes are also published in this column. Contributions are avidly sought. Byline credit will be given to submitters of recipes used. Recipes will become public domain.

Letters and commentary are most welcome. Please submit such material to the editor of Mathnews. Current information and ratings are available on the MFCF Honeywell machine under Jewinterton/gourmets. This catalog has general read permission.

Rating System

A rating of one to ten bunnies will be given based on three or more visits to the establishment. Partakers in these visits will discuss the rating and attempt to arrive at a consensus. In cases of dispute, the decision of the majority will prevail. The writer of the column will act as a tie-breaker if needed.

Points that will be covered in a rating are ambience, presentation, delectation, consistency and service. The price for two will be mentioned in the article but will have no part in the rating.

In addition to ratings, there will be a section of this column headed "Visited Once". There is an implied phrase following this title which you should remember, since we do not plan to emphasize the point. This phrase is "... and never again."

Another feature of this column will be the "Previously Rated" section. This is an accumulated precis of articles in previous columns with ratings and date of same.

Mathematics Society Coffee and Donuts Stand Third Floor Lounge, Mathematics and Computer Building.

This is possibly the only C&D operation on campus not in the clutches of Food Services. Currently offering food prepared by Mr. Sandwich, fresh coffee prepared at various power outlets in the Math building, fresh donuts and salads (while they last). Math C&D has our custom. After suffering from a small set of start up pains this term, it is now clear that the operation under the present management is doing rather well. The bunwiches are quite tasty, and the subs are substantial. A variety of portion pack dressings are available for the fresh salads. The salads tend to disappear by 12:15 most days, so you have to be on your toes to get one. Fresh fruit has been offered in the past, although we haven't noticed any lately.

Operating Monday through Friday in the Mathematics Student Lounge from 0830 to 1530 and in the fifth floor Faculty Lounge at odd hours. C&D fills the need for edible comforts during the working day. Cold drinks are also offered. Lately tinned iced tea has been available.

A recent coup was performed by the C&D staff when it was discovered that all the Zehr's stores in K-W were offering cases of Coca-Cola for \$4.00. Since Coca-Cola's normal price to C&D was \$7.00 a case, the astute C&D'ers rented a truck and circulated around the city using the profits to acquire as much Coke as possible from Zehr's. Much panic resulted, but Zehr's had to stick by their advertised price, so several hundred cans of Coke were obtained from which C&D can profit like the big guys. Keep up the good work.

4 Bunnies June 23, 1981.

Previously Rated

The Laurel Room South Campus Hall.

An inexpensive buffet on campus run by Food Services. An example of institutional operation at its best. Fixed price of \$4.20 per person for the buffet. \$11.00 a couple with drinks. Lunch Monday to Friday, dinner Wednesday to Friday. Dinner reservations advised.

5 bunnies May 29, 1981.

Marbles Restaurant 8 William Street East, Waterloo.

A good place to eat in beautiful downtown Waterloo. Behind the Donut Castle (next to Ali Baba's), this cook-to-order hamburger and salad emporium is well worth a visit. Recommended are the various hamburgers (can be had rare); featured salads, especially the whole earth and caesar; avocado with crab louis and the quiches. Wide choice of beverages from beer and wine to selected teas. An outstanding large milk. Meal for two without drinks \$15.00. Visa, Amex. 7 Bunnies June 12, 1981.

Village II

Many of you out there reading this will be living in Student Village II during your first year at this university; having spent a year there myself, I will take this opportunity to provide some information about the place.

General Appearance: General information about V2 can be obtained by reading the nice little handbook they give you when you get your residence information; I won't repeat it again here.

The Room: Your first impression upon locating your room will probably be: "How am I going to get all of my stuff in here?" The rooms are not really all that small, but when you consider that 2 beds, 2 tables, 4 chairs, 2 clothes cupboards, etc., have to fit into each room, it does not leave a lot of space for storage. The furniture in South quad is 'modular' (I believe that's what they call it); i.e., you can make bunk beds, turn your bed over, stack your bed on top of your desk, or vice versa. (Elsewhere, it is fixed in place.) Each room also comes equipped with a telephone (one phone line for every two rooms, although each room has its own phone number), tack boards (and not enough tacks!) and two lamps (one for each person).

Amenities: Each floor has two lounges, one of which contains the TV set and the fridge for the floor. In addition, there is a washer (coin-operated) and a dryer (free!). Each quad has a carpeted lounge (a nice, large room and therefore a large dance floor for parties), an uncarpeted lounge (most often used for squash or floor hockey), a pool room (the pool tables are not always in great shape), a study lounge and a bicycle storage area. The main building, in the center of V2 contains the Great Hall (used mostly for the writing of midterms), a pinball room (the machines in the Campus Centre games room are better), a tuck shop and the infamous Dining Hall.

The Food: In the dead of night, when the moon is full, enormous unmarked brown trucks sidle up to the loading entrance of the Village II Kitchen. A group of sinister-looking men in green coveralls bring in truckload after truckload of dusty rotting cases full of jars labelled in strange languages; these jars are emptied into large vats by groups of wizened old gnomes in dirty white uniforms, who stir away at the gruesome mess, cackling all the while...

But seriously folks... The food in V2 is the standard institutional bulk cooking. Three meals a day are served, with a choice of two main courses. Unlike many other universities, Waterloo residences allow you to eat as much as you want. The milk is always fresh and cold and the desserts are usually quite good (every Friday at lunch they serve ice cream with a

Point-Counterpoint:

THE DEPARTMENT OF CO-ORDINATION AND PLACEMENT

Math NEWS needs some buddy who can do LaTeX!

Point

Who are the miracle workers behind any good co-op student? Who finds all those jobs that appear in the Want Ads each term? Who checks up on you and finds out if you've been chewing bubble gum on the job? It's the Department of Co-ordination and Placement, conveniently located in Ira G. Needles Hall (despite that haughty name, it's really quite a nice student-friendly building, and used to be called Student Services, a name which I guess appeared to pander too much to the youngsters).

The organization, as viewed from the side of the average student, is more personal than those computer forms (not to mention Math 000) make it out to be. One department employee ('co-ordinator') is assigned to each area of the country, most of them in Ontario, and keeps an ear open to job prospects opening up in his area.

After your initial co-ordinator interview, you will be expected to submit twenty copies of your favourite resume and if you don't know how to write one you had better learn quick. When the time comes for you students to make your job choices, you must confront the Want Ads, a newsprint listing of jobs available to you (and there are a lot, if you don't mind Toronto!). You apply for jobs, and attend interviews for those employers who like your resume (no photograph is necessary, fortunately). You rate them and they rate you, and after much grinding of gears and computerized agony, the matches are made. There is little else to know from this point, other than that you have a job and you must attend (unless there are extenuating circumstances). Usually you will spend two of your six four-month work terms with that company, and produce 'work reports' on four of those six before you graduate.

If you can maintain the minimum grade in your course work necessary to stay in the co-op program, you will hopefully enjoy six terms (that means two entire years) of employment in the salary range of \$225 to \$400 a week, which amounts to a healthy average of about \$30,000 over your four and two-thirds years at university. So if you have any doubts about where your money is coming from, consider how fortunate you, the co-op student, is at this university. UW graduates are highly respected as people with money sense and experience in modern business, as you will discover.

Counterpoint

Let's face it - you are given a lot of hype at this university. One of the biggest hype producers is the department of co-ordination and placement - the people who run co-op. A large percentage of you are in the co-op programme. Be warned - it sounds nice but it may not be for you.

First, to reiterate the major advantage of co-op - it will increase your chances of getting an industry-related job when you graduate. Thus, if you have definite career plans in business or industry, co-op may suit you greatly. Personally, I didn't like being told, "You are the future managers of the world" by fatherly co-ordinators. Unless you are willing to conform to co-ordination's image of you, get out of co-op. In most cases this means the "three-piece suit and go out for lunch crowd", i.e. you are not considered a student on a work term and must conform. To me this was unacceptable. I found it extremely difficult to transfer *entirely* from an academic environment where questioning is the norm to a business environment where compliance is the law. I do not have aspirations of entering the business world per se - if I do it will be in terms of a self-owned retail business, probably unrelated to my studies. Thus, co-op was simply a way to pay my way through school. This mercenary attitude is frowned upon greatly by co-ordinators and employees alike.

Thus, if you think this way, you have two choices - drop out of co-op or act as if you *want* to work for your employer when you graduate.

Math Students Do Well On Putnam

The Waterloo team of Michael Albert, William Hughes and Guy Hulbert placed highest in Canada and eleventh overall in North America in the 41st annual Putnam Mathematical Competition last December.

Of the 2043 students from 335 schools who participated, 12 UW students placed in the top 20%. UW coaches were Professors Bruno Forte, Ken Davidson and John Lawrence.

(Excerpted from UW Guidelines, Volume 9, Number 2.)

UW Notes

Microelectronics applications centre established

Waterloo is establishing a microelectronics applications centre, under the direction of Dr. Don Cowan, computer science, to serve members of the university who need assistance in the development of microelectronic and microcomputer applications for research and teaching.

Dramatic reductions in the cost and size of electronic circuits over the past decade mean new, tiny microcomputers are being developed at low cost... and their use is growing dramatically.

It is intended that the centre will make its services available to Canadian business and industry, developing special software and hardware systems for specific applications. These services can include: consulting, applied research and development, testing, system prototype production, preproduction fabrication, circuit simulation, chip fabrication, seminars and training sessions.

There already exists a computer systems group on campus, well known for the software it has developed and made available to education, business and industry. There is involvement in microcomputer applications, signal processing, circuit design, simulation and modelling, integrated circuit fabrication, computer control application and the design and construction of microelectronic systems.

UW's first Rhodes scholar

Mathematics student, Michael Albert has been awarded a Rhodes scholarship to study at Oxford University, the first UW student ever to win this prestigious award. Albert came to Waterloo at the age of 15 [yes, but he was 6'1" at the time! -ed] and is graduating this spring, at 18. He completed four years of work in three, taking two degrees (in pure and applied mathematics) as he did so. He is regarded as one of the most outstanding students ever to study at Waterloo. The value of the scholarship has been set at 25c.*

Grads score high in C.A. exams

Three of the top five Ontario students in this year's final examinations for the chartered accountancy profession were graduates of the University of Waterloo. All three are holders of bachelor of mathematics (B. Math.) degrees; all three specialized in the co-operative chartered accountancy option while undergraduates.

Top mark was scored by UW alumnus, Al Walden, Kenora, who will receive the ICAO gold medal. [Other winners were Lynne Millar of Montreal and Robin Wydryk of Burlington. -ed]

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Bell Labs choose Waterloo

Waterloo has been selected to participate in a graduate program in computer science for employees of Bell Laboratories in the U.S. The company has evolved a program of support for employees who wish to undertake masters' programs in areas such as computer science, electrical engineering, behavioral science, operations research and mechanical engineering. The program covers tuition, related educational costs and continues employees' salaries for one year of study.

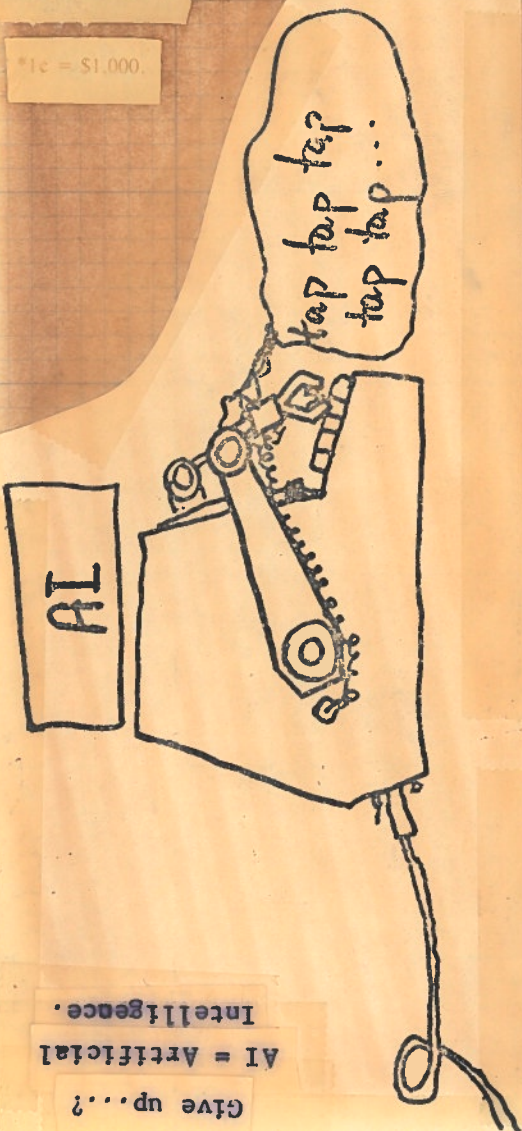
Bell feels the quality of the computer science graduate program at Waterloo merits the university's inclusion in their program.

"This is a real mark of recognition," comments Dean Alan George of UW's Faculty of Mathematics. "It puts us in very good company indeed."

Some of the American universities involved include Harvard, MIT, Princeton, Columbia, Georgia Tech, Ohio State, Michigan, Cal Tech, Stanford and Southern California.

(Reprinted from UW Notes, Number 10, Spring 1981.)

*1c = \$1,000.



(Note: This article originally appeared in the Toronto Globe and Mail, February 28, 1981.)

Who is that intellectual? And why is he laughing?

Two philosophical behaviorists meet in the street. One says to the other, "You are fine, how am I?"

What makes academics laugh? People not involved in scholarly pursuits may themselves laugh at the idea of intellectuals giving vent to anything as immoderate as a belly-laugh, their order generally being considered more dyspeptic than jocular. But laugh they do, though it's not always apparent *why*.

For instance, to laugh at the behaviourist joke above (submitted by Professor Derek Allen of the University of Toronto's philosophy department) the reader must understand that philosophical behaviorists equate descriptions of mental states of a given organism with the observed behaviour of that organism. One question concerning experimental procedure asks whether a person can accurately observe his own behaviour. The philosophers in the story say no, and feel committed (humourously to us) to gather data from each other before reaching a conclusion regarding their own mental states.

Inside animosities are normally the richest source of inside jokes, and nowhere can one find a steamier concentration of strong wills than in the insular world of the university. Leslie Fiedler, a professor of English at the Amherst Campus of the State University of New York, remembers that in his student days it was common for arts and pure science students to quip, "Ask any engineer to sum two and two, and he'll pull out his slide rule, and answer after 20 minutes, 3.99999999..." (the literal answer given by a slide rule)."

Pure and applied scientists are natural enemies in the academic jungle, but skirmishes between the theoretician and the laboratory researcher yield more subtle results. The following joke, submitted by Robert Logan of the University of Toronto's physics department, makes fun of the aptitude of scientists for reaching wrong conclusions:

A scientist is conducting an experiment with a frog. He sets the frog on a long table and says "jump."

The frog jumps 20 metres. The scientist notes this in his book.

The scientist removes one of the frog's legs, and repeats the process. "Jump," he says.

The frog jumps 15 metres.

After removing a second and third leg, the scientist notes that on the command the frog jumps 10 and five metres respectively. Finally, he removes the final leg, sets the frog down, and says "jump."

The frog doesn't move.

"Jump," says the scientist, a little louder.

No reaction.

The scientist notes in his book, "Frog with no legs is deaf."

No explanation is necessary, except, perhaps, to anti-vivisectionists.

Milton Babbitt, a celebrated American composer and member of the faculty of Princeton University since 1938, offers this mock maxim of musical analysis:

If it happens once, it's unintelligible. If it happens twice, it's structural.

Professor Babbitt suggests, quite persuasively, that this joke is aimed at incompetent musicologists "who think that to a point a minor third here and a minor third there constitutes analysis." But it also implies that the first part of the maxim implies that structural analysts have no means of dealing with spontaneity, something many people feel is a property of all great music, or the best of the Mills Brothers at least.

This maxim becomes a particularly intelligible demonstration of how jokes can be discharged both between and within fields of learning. Most interdepartmental jokes could be told with plausible malice between feuding proponents of the same discipline. All the joke-telling professor has to do is to convince himself that he is really above the sort of practice he jokingly attributes to his inferior colleagues.

But some jokes are clearly told at the expense of a whole department and all its members. Professor Allen Gleason, of U of T's linguistics and English departments, provides this joke, which levels two departments at a single blow:

Q: What's the definition of a sociologist?

A: An anthropologist who's learned to count.

continued from page 9

But even social scientists with indisputable math credentials get in trouble; lack of vision is the charge levelled at the statisticians when other scientists say, "If they can't count, it doesn't count."

So one can be baited for having too little math or too much; there remains the matter of having any math at all. No figure in the university takes his or her lumps like the mathematician; three of the humanities professors I contacted immediately cited a favorite joke while humming and head-scratching over a joke from their own fields.

Here are two math jokes submitted by Anatol Rapoport, the current director of the Institute for Advanced Studies in Vienna:

Three people are stranded on a desert island: a physicist, an engineer, and a mathematician. They have three cans of beer. The physicist finds two sticks, builds a fire, suspends the can over it, waits for the can to explode, and drinks. The engineer finds a rock, and then a harder rock, forms a chisel, aims it at just the right angle, opens the can, and drinks.

The mathematician assumes his can is open and drinks.

Each scientist opens his can in a way suited to his field of study; the physicist exploits the laws of nature, the engineer is direct and mechanical. The punch line pokes fun at the often-criticized mathematician's habit of making otherwise unwarranted assumptions for the sake of elegance.

Dr. Rapoport's second joke points to the mathematician's practice of glossing over conceptual leaps with jargon:

A mathematics professor is busy demonstrating a very complex proof to his students, furiously chalking the blackboard with equations.

"As you can see, it is obvious that step G follows from step F." The professor begins writing again.

"But professor," calls out a student, "is it obvious?"

The professor looks at his work for a moment, and suddenly shuffles over to another blackboard and starts writing new equations with equal vigor.

Half an hour later, he turns to his class, and says, "Yes, it is obvious."

Professor Ed Barbeau of U of T's mathematics department, however, offers the mathematically inclined reader something of a consolation in this joke:

A statistician, a philosopher, and a physicist go to Scotland. While taking a train through the countryside, they see a black sheep grazing.

"Interesting," says the physicist, "in Scotland, sheep are black."

"Oh, no," replies the statistician, "all you can be sure of is that in Scotland there is one black sheep."

"Wrong again," says the philosopher, "all you can say for certain is that in Scotland, there is at least one black sheep with one black side."

In this case, the statistician is the only one to draw a common sense conclusion from the problem; the physicist leaps to a generality, while the philosopher is absurdly over-precise.

Another theory of humor argues that laughter arises when a suppressed anxiety finds release. The anxiety being relieved can take on any form; any kind of thorn in the side is good fodder for jokes. If the anxiety is construed to be cerebral, many academic jokes - the ones showing what Professor Fiedler calls "self-hatred, or rather a self-reflective irony" - are convincingly explained as releases of tension sown by misgivings over the rigors of a certain way of thinking, or of thinking in general.

Dan Goldstick, a philosophy professor at U of T, leans toward such an explanation of humor at the university. "Thinkers use jokes as a method of getting out their evil ways; jokes expose reservations but also sublimate them. It's almost as if they think that to stand back and laugh at their follies and foibles entitles them to be forgiven for admitting them."

Professor Goldstick's joke, which he attributes to an anecdote sometimes told about an ancient Indian idealist philosopher named Sankara, eludes definitive analysis, but certainly seems to involve a release from the daily rigors of dialectical materialism:

Once, in an old Indian principality, there lived a court philosopher, who declared that all the world was an illusion. Action was useless, said he, for we live in a dream.

The local Maharaja, a man of a more practical frame of mind, spotted the wise man slumbering under a tree in the royal estate. Swiftly the prince sent for a battle elephant, and sent it charging at the philosopher. At the sound of the thundering footsteps, the philosopher awoke and scampered away like a rabbit. The next day, the Maharaja took him to task.

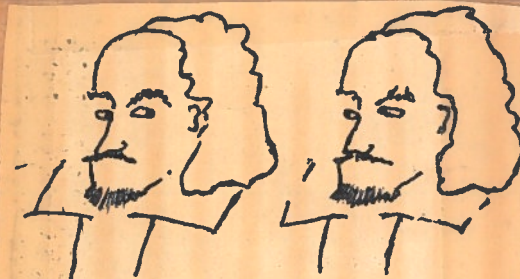
"If the world is an illusion, why did you run?"

"Did I run?" replied the philosopher.

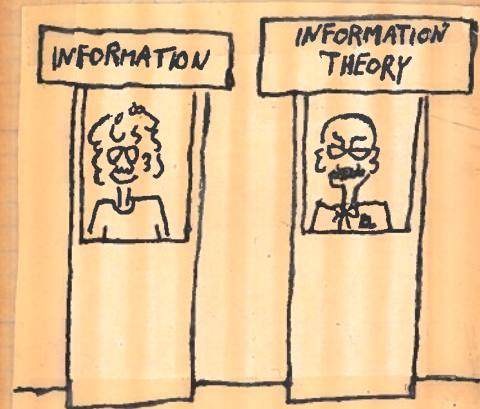
This story could easily be described as indictment of subjective idealists, if it weren't for the fact that there are no longer any subjective idealists around. However, their oddly comfortable position - they need not be persuaded by any empirical evidence - has obvious infantile appeal. The return to such supremely selfish logic might be what triggers laughter into the listener.



Ontological proof
of tuna casserole



WILLIAM SHAKESPEARE
SOMEONE BY THE SAME
NAME WHO WROTE
SHAKESPEARE'S PLAYS



consecutive fifths

Matters of Course

Chances are you never read more than the Math pages in that undergrad handbook. Right? Right. But when you hear people boasting of the eclecticity of their timetables, how *they're* taking El E 333 and you aren't, you'll realize that branching out into other faculties' courses is a serious practice... and yes, it can really be worthwhile. You have to take some electives to get your degree; make them good ones.

Most say that you should take electives that parallel your degree. Fine, if that's all you are interested in. University offers a chance for a really balanced education which you may never experience that way. It's good to take a course that gives you something to look forward to each time you go to it; your overall performance is bound to improve by it.

An important note about electives: the boring list you are given about "recommended electives for math students" is not the only list to follow. In fact you may take any course offered in the calendar so long as it has no prerequisite. Look through a calendar; there are many courses which may interest you. Ignore the stigma attached to arts courses — they are a great way of educating yourself — something an all math degree will never do. This is a large university with many facilities — don't chain yourself to the math building.

So, without further moralizing, let's list some courses we think represent UW's wide spectrum of interests.

PHYS 121/122: If you take this course you will wind up crammed into an uncomfortable seat in the main Physics Lecture Hall (Phys 145). This room has no desks, so you are forced to write on your lap - as a result, your notes for this course will be illegible. Still, you can't expect much from an introductory course anyway - the basics of anything are often rather uninteresting. The course textbook is the infamous Halliday and Resnick's *Physics Parts I and II*, which (except for the practice problems at the end of each chapter) is only useful for building up one's upper body strength or as a paper-weight. You could do worse than this one - after all, you might be able to use some of this stuff someday...

PHIL 140: This one is a well-known "bird course" - "Introduction To Symbolic Logic". A guaranteed insomnia cure, especially since the class usually meets at night. This one will help keep your average up.

ECON 101: Some people that I know really liked this course - I didn't. For one thing, they've got all their graphs backwards - would you believe that the slope of a horizontal line is infinity, according to them? The textbook consists of nothing much more than common sense concepts cloaked in jargon; it should be avoided at all costs. Perhaps you

What to take & what to avoid at UW

might like this course, but to each his own...

ENGL 343: American Literature. I rather liked this one, though doing two 2000-word essays during my 2A term was about as much fun as having bamboo shoots stuck under the fingernails. This course studies the Puritans, Benjamin Franklin, Thoreau, Emerson, Hawthorne and Edgar Allan Poe, among others. Worthwhile.

SCI 205: This one is another famous bird course. In this class, the student learns about high fidelity sound; topics discussed include resonance, harmonics, how stereo components function, etc. This one can be actually interesting, especially if you take the labs (although you might not want to use up that much of your valuable time on the labs, since you don't actually learn much in them). The class displays are neat, too - would you believe we got to see a film of the Tacoma Narrows bridge collapsing, with Pink Floyd's 'On The Run' as soundtrack? But be warned - this class invariably meets at night.

ENGL 208Q: Any course that studies George Orwell, Kurt Vonnegut, Aldous Huxley, Ray Bradbury, Evelyn Waugh, Joseph Conrad and Jonathan Swift cannot be all bad! Seriously - this one's called "The Apocalyptic Vision In Literature", and it's like most other arts courses - really good when there's a lot of discussion among the students, but quite boring when the prof spends the whole hour expounding his theories. A nice change of pace from the assembly-line first-year math courses, though...

CHEM 123L & 124L (Labs): One of the few courses where you can have three hours a week of fun singeing your hair over a bunsen burner while earning an extra 1/4 of a credit (1/4 for each of 123L and 124L). The experiments are based on the material as the first year chemistry lecture course. This course should be considered if you are going to take chemistry anyway.

ENV S 111: Introduction to the Study of the Future. This is one of the all time great first year bird courses. It is only offered in the fall and usually fills up quickly. The course introduces some good futurist authors and there are often class discussions on such things as politics, sex, societies of the future, current events, etc.

ENGL 109: Introduction to Essay Writing. This is a good course to take if you are in co-op or plan on taking any other courses which require essays. Short essays are written in class, with text reading and some revisions being the only homework.

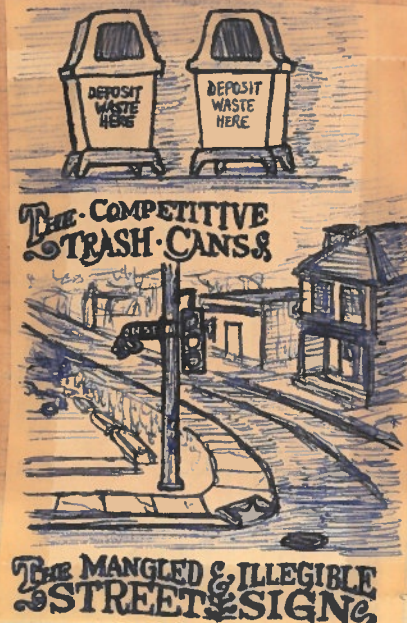
SCI 238 - Introduction to Astronomy This is your run of the mill ordinary introductory astronomy course that

enlightens one on everything from the creation of the universe to how the heck *anyone* can see the animals in the well known constellations. Depending on who lectures the course, you will also find out about how to navigate in space (have you ever wondered just what in heaven a parsec is?). This is a good course to take during your summer term here as you will get the opportunity to look at the stars from the Physics Observatory (no it's not an Ultra-Ban billboard!).

SCI 202 - Energy Yet another enlightening bird course, this course introduces you to the problems of the energy crisis and also the solutions. It teaches about various sources of energy that include tidal, windmill and even flywheels! (wow!). When I took the course the prof set up a tour of the Bruce nuclear power plant. If you are pro or anti nuclear, take this course and you may change your mind.

SCI 270 - Nuclear Science This course is taught by a well known authority in the field and will introduce you to the realm of the atom! (ta-da!) The material covered is not very exciting but informative (did you know that you can't become radioactive just by being near something that is?...now you can live near Pickering!) About all that is required is a knowledge of grade 12 mathematics. A recommended course!

Unsolved Dilemmas of Modern Society



continued from page 10

Professor Goldstick, who emphasizes that he is not to be associated with subjective idealism, uses the joke as a way of pinning down that school of thought. Professor Allen also sees joke-telling as serving "a serious pedagogical purpose, as long as the technique is not allowed to undercut the serious issue involved."

This joke from the mathematics department appears to fit the relief theory mold. A parody, actually, this one comes from the journal *Crux Mathematicorum*:
Two problems:

1) To put out the fire, given a hydrant, a disconnected hose, and a house on fire.

Solution: Connect hose and squirt house.

2) To put out the fire, given a hydrant, a disconnected hose, and a house not on fire.

Solution: Set fire to house, thereby reducing to previous problem.

In this case, the elegance of on-paper reduction results in real-life complication. The joke thus can be analysed as a release of suspicions concerning the applicability of pure mathematics to the real world.

The final relief-theory joke is submitted by Professor Cornelius Silber of U of T's English department:

A literature professor is asked whether he has read a book.

"Read it? I haven't even taught it!"

Professor Silber's joke is unique; it is the only in-group literature department joke I could find after a relatively exhaustive survey. Silber accounts for this by noting that "most of my colleagues make do without a large body of jargon, which is fundamental to much professional university humour. I think there just isn't a strong strain of esoterica in the literary studies."

Alexander Leggat, a U of T English department professor and vice-principal of University College, thinks that literature professors "tend to tell jokes more as human beings than as thinkers. We tell jokes about character because we are aware of the personal element in our work. Our greatest fear is that our characters will affect our analysis of literature." Professor Gleason, on the other hand, proposes that jokes in literature departments are uncommon "because they are going through a period of intense insecurity at the moment. The whole enterprise of English studies, for example, is being called into question. Enrolments are dropping. In a word, they're scared."

Further analysis of this interesting state of affairs belongs elsewhere.

It has been shown that some jokes of the university are best analysed as expressions of malice, some as releases of inhibition, and some as a combination of both. Still others appear merely to present listeners with an unusual juxtaposition of words or thoughts (a necessary part of all humour in any event), delightful for its own sake.

As might be expected, the mathematics department, which has proven itself infinitely rich in jokes, has something to offer in this category as well:

It rained 40 days and 40 nights. At the end of the flood Noah said to the animals, "Go forth and multiply." And off, in pairs, they went.

Except the two snakes. "What's wrong with you?" asked Noah.

"Noah, we cannot go forth and multiply, for we are adders."

"I see," replied the thoughtful patriarch.

So Noah went off to the forest with his three strong sons, felled some mighty trees, and built a table of logs. Noah summoned the snakes.

"Behold where I have built a log table; now ye adders can multiply."

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choice of toppings); however, the judicious diner should avoid the pastas, the 'swiss steaks' (usually referred to as 'hockey pucks') and the pineapple sauce, and should eat anything covered with gravy quickly before the gravy congeals. Also, the food is not as good on weekends (I don't know why). Generally, I have found that lunch is the best meal.

Advantages to V2 Living: You will definitely meet a lot of your fellow students right away, since there are 47 more of them on your floor. You will, therefore, make a lot of friends in a hurry and you will never get bored. The floor parties are often quite good. Also, a lot of strange things can happen in residence (once, our fridge was stolen and placed by the bus stop near the Faculty Club).

Disadvantages: You may find it difficult to sleep on Thursdays, Fridays and/or Saturdays, since there is often a party or a stereo war going on. Also, there are always a few idiots on any floor that delight in doing things such as breaking ceiling tiles or beer bottles, or pouring water under doors (it is not a good idea to put things on the floor near your door). If you are not a gregarious sort of person, you may find that V2 bothers you sometimes, since almost everything there is done in groups.

I hope this gives you a little more of an idea as to what Village Two is like. I personally (as opposed to I impersonally?) don't regret having lived there (though I wouldn't want to go back); hopefully, you will enjoy living there.



continued from page 6

meet some Exciting and Talented People. Because what else is there to do when you have given up on your homework?

Hundreds of millions of years ago, like a good frosh, I worked really hard all through my 1A term. I joined the Warriors Band in 1B, and have never regretted it. Never regretted the time it took, which wasn't much. Never regretted the money it cost, which was nothing. Often wondered why the basketball team, after finishing in the top 3 in the country for four straight years before I joined including one national championship, suddenly started to get worse as the band got better. But those things happen. I began to wonder why all of a sudden propaganda started to appear that stated indisputable axioms like:

The brass section sounds like a mixture of trumpets, trombones, tubas ...

If you join you will certainly have as much fun as I had, and it will make getting through school a lot more enjoyable. Give it a shot. This year's leader is Peter Oliver, one of the best bass drummers to come out of North Toronto Collegiate in many years. He will be happy to give you all the details. Or open your eyes and look for the posters which will theoretically cover the campus. He lives at Renison, where I think his phone number is going to be 884-8159.

The Band owns and occasionally loses parts of a reasonable stock of instruments, so not owning a francophone yourself is no excuse for not joining this infamous institution.

And don't listen to any stories you may hear about the quality of the band, unless you happen to be talking to a band member. Most people who criticize The Warriors Band have never heard The New Warriors Band. Come and discover what all the noise is about. Remember, The Warriors Band is bigger than the Beatles! (numerically speaking).

It's not as bad as it sounds.

- 30 -

Rest assured you have not heard the last of this.

Nothingness vs. Onethingness

Please don't worry, this isn't anything like your first Math assignment. This is just an attempt to see what you, the frosh, think about mathematical abstractions. In particular, this article addresses itself to a warped branch of information theory, a science developed largely in the last 30 years, which examines methods of communication and assesses the amount of 'predictability' it contains.

For instance, if you heard the first few bars of Beethoven's Fifth Symphony, you would say (without hesitation) that what is being played is in fact Beethoven's Fifth. It's predictable! Hearing further notes tells you no more about what is being played. In other words, after these first few notes, the music conveys no 'information.' But it could have been something like "A Fifth of Beethoven" by Walter Murphy and the Big Apple Band, or even "Roll Over Beethoven" by E.L.O. or Chuck Berry, even... but I digress. See? There is still some information yet to come.

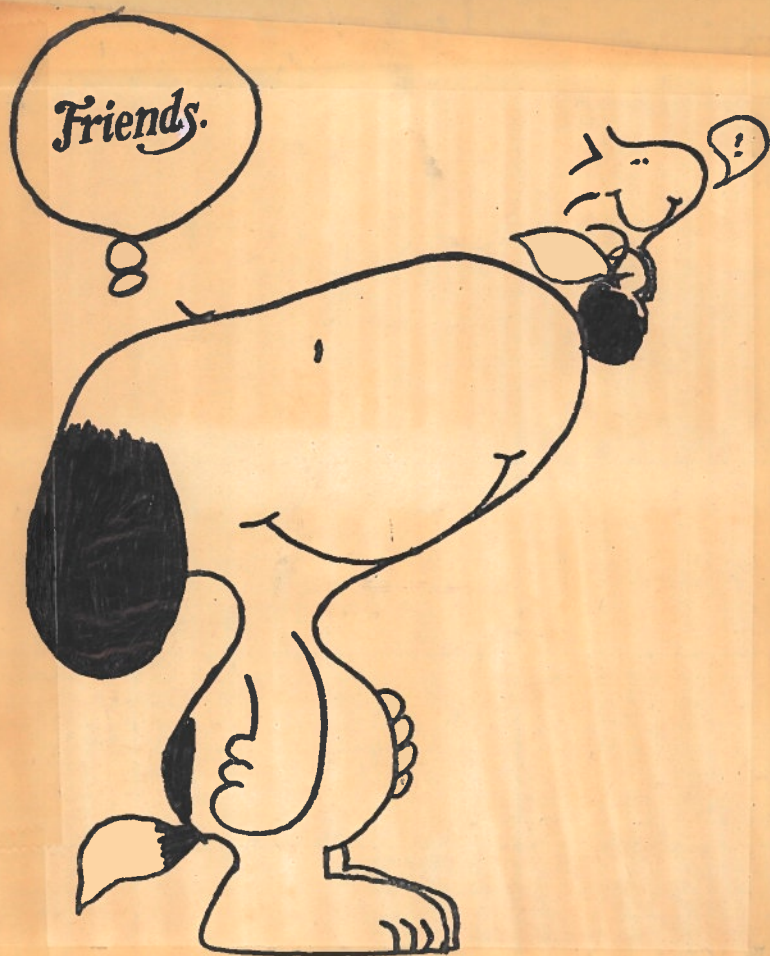
By these definitions, random noise has the most information, and Gregorian chants and B-52's music has the least.

So what am I getting at, hm? Imagine, if you will, two languages. Not necessarily languages with letters and words, but logical sorts of languages. One of these is such that every statement you can make in it is valid, and the other is such that every statement you can make in it is invalid. Which one is the more meaningful? A moralist/purist would say that truth is superior to falsity under any circumstance. What do you think about this?

In the same way that the second language has no answers, the first one has no questions! So let's imagine something where not everything is so predictable. We could imagine one where everything is uncertain. Or where everything is a paradox. Now, let's consider a case where there is a division. Some number of statements are valid, while all the rest are invalid. English is an example. For every valid string of words there is an infinite number of strings representing gobbledygook. If you tried to express the number of valid statements as a fraction of the total number, you'd get zero... but English works nonetheless.

People often talk about "making something out of nothing." Why must we be so concrete? Must everything be either something or nothing? Is there any happy medium here?

Whosoever comprehends this is more than welcome to speak with gods. At least you might understand their language. English is such a language.



Certainties

Uncertainty. When your WIDJET assignment is going to toddle off its queue. When the bus is going to come. When, when, when is mathNEWS going to come out??

You will certainly suffer from uncertainties in your time here at UW. Not the least of which will be those which arise from living on your own for the first time.

You can be certain that no student in public office, even the village don, will act according to his promises (let alone his duties).

You can be certain that the Honeywell will be down at least once a week (WIDJETers needn't care).

You can be certain that Kitchener/Waterloo merchants will not have the article you really want, even if it's available on every street corner in T.O. And the bus that might get you to that store may never arrive.

You can be certain that any local restaurant named "The Barbary Coast" is so named because the owner-cum-bouncer used to be a barber.

You can be certain that Waterloo's excessive winds will blow in your face (whatever direction that is), except when the temperature exceeds 25°C. Then the air will feel like a big soggy sponge. Despite the name, Waterloo has very little swimming water! Except for Columbia Lake, which is an astounding four to six feet in depth.

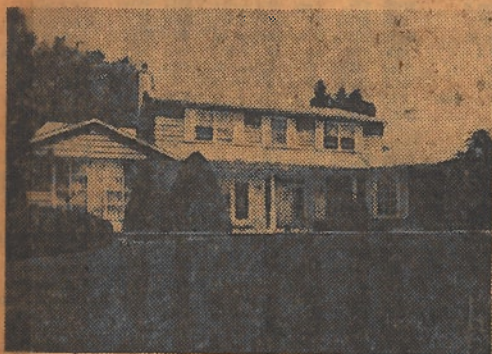
Heard enough discouraging stuff? No? Consider then that the closest liquor store is hidden up in Sunnydale at Parkdale Plaza, not at Westmount Place (the local residents wouldn't allow one there, for fear the students would swarm all over it), and the closest Brewer's Retail is almost four miles away, on Weber at Lincoln.

But if you're now getting used to these certainties, you're cynical enough to get along in this town. Enjoy!

INGREDIENTS: Ross Brown, Toni Tothill, Dave Till, James Puttick, Mike Gore, Andrew Welch, Alan Munn, Ashok Patel, paper, ink, FASS members, bad jokes, Brad Templeton and/or Censored, Warriors Band (may include Steve Hayman, Kevin Tureski, James Puttick, Pete Oliver, John Oldfield), Jim Gardner and his wonder bun Mark D'Gabriel, J.R.R. Mathie, Jim Sellens, Peter Rowley, Calum T. Dalek, John Winterton et alia, Jane Roberts, Dennis Mullin, rubber cement, X-acto knives, Letraset, dead waxer, Scotch tape, Clearprint FADE-OUT pad (15c a page!), PhotoN, HP 2648A Graphics Terminals, newspapers (UW Guidelines, UW Notes, Globe & Mail (includes Arthur Kaptainis), Kitchener-Waterloo Record, some McGill student newspaper and an old, decrepit, disgusting, execrable, ill-behaved typewriter...

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Monologue

-with C E N S O R E D

Due to the mathNEWS policy of providing equal time for opposing views, the following column is printed, for it will surely be one.

"Before you form any opinions, make sure that they are yours."

Good whatever, (it depends on what time you're reading this) and welcome to the first **Monologue** of the term. **Monologue** is a column of philosophical dissertation designed to fill space in mathNEWS. No holds are barred, and many columns are printed specifically for the purpose of sparking controversy. Written and verbal replies are encouraged, although tomatoes and other garden vegetables are not. **Monologues** are written by the fellow whose name **DOESN'T** appear at the top of this column and on *most* of my ID cards, a fourth year student in the CS department, professional microcomputer software author and avid member of FASS. Each column is headed by an italicized quote summing up the theme of that column. Well, enough useless information, and on with this week's edition.

This column, and indeed this entire issue of mathNEWS, is aimed right at the new crop of Frosh. (I don't know what you are like yet, since I am writing this on July 8 in my office at Personal Software Inc. during the time the VAX

we use is down for the installation of another 3MB) You are now entering what may well be the most influential stage of your adult life. At University, not only will you be educated, (fat chance!) but you will experience a social setting very different from what most of you are used to, and probably very different from what you will experience in the great beyond.

Here at U(w), you will be forming some of the most important opinions of your life. The new knowledge and way of living that confront you will change your personality. You must therefore ensure that the new personality you create is one unique to you, rather than one the rest of the world wants you to have. You must be sure that the opinions you are forming are **your** opinions, not just ones that would be convenient for your surroundings. Make sure you are not being 'led', for that is the road to becoming just another member of the masses. (horrors!)

I bring this to your attention because you will shortly be bombarded by all kinds of people claiming to have your interests at heart. These are people who have, as I once did, fallen victim to the disease of Politics. In order to assert their own importance, they make up causes for other people to believe in, and then set about proving to these people how much they believe in these causes. Here at U(w), we are loaded with this type. You will find them in the Federation of Students, in mathSOC, and on the staffs of newspapers such as the Imprint and the Chevron. They will tell you about all the important student causes you believe in. They will tell you how poor you are, how the Ontario Stereo Assistance Program doesn't cover it and how **The Evil One**, Dr. Bette Stephenson (Minister of Colleges and Universities) is trying to suck away your lifeblood and that of your school. You can listen to these people. But please remember they are politicians at heart and take what they say with a shaker of salt.

If you are going to make up your mind that students are the oppressed minority of today, then do so only because you actually see it. Do it because you see it as an actual problem, not because it is a fun game to carry placards and shout. Remember that over 85% of the student body on this campus cares so little about these politicians that they don't even bother to vote for them at election time. That's right, those people up there spending your money were approved by as little as 5% of the student body. So watch out when you hear: "I have thousands of students behind me when I say...". Are you being counted in with those thousands? Is that your only role? Are you championing something and only being part of some 'thousands'?

The important thing to remember is to make sure that your opinions are your own, formed by, thought *in addition to* learning. You can't go far wrong with that formula.

Grad Students

You have been told of the horror of the engineering student, the anonymity of the optometry student, the learnedness of the arts student, and of course the supremacy of the math student. But there exists yet another type — the Grad.

Of whatever faculty, grad students have a natural superiority complex. Unlike the egotistic undergrad engineer, they know they don't have to tell you that they're better. After all, the signs are obvious:

One of the most noticeable differences between you and THEM is the office — they have one, you don't. Thus they can work in the cool math building on hot days, drink their own Timothy's Special Blend coffee or Earl Grey tea, and store all sorts of wonderful amusement safely — chess boards, backgammon sets etc.

Another advantage grad students have is the Grad Club — it's far more personal and quiet than the Bombshelter and the beer is the cheapest on campus.

Grad students also have NSERC grants — this is the money the Canadian government pays them to help maintain their cars. Or other expensive amusements not afforded to undergrads. Mind you, NSERC grants really pay for the courses the grad student takes, usually not more than two per term. Thus he can do nothing with far greater ease than you struggling under six.

The pressure of their workload forces many grads to behave in a peculiar manner. Some may be found at 2:00 a.m. playing frisbee in a narrow hallway or pushing each other madly about on swivel chairs. They feel they can act this way since they've already been through what you're just beginning.

If being a grad student sounds like good fun — it probably is. One of the best ways to find out is to befriend a few. They may lead you astray — but they may also lead you to the Grad Club or take you flying. You may become a pseudo-member of the group and be allowed to sit in their office, drink their Timothy's Special Blend coffee or Earl Grey tea, and play a little chess...

The Shape of Future
Present

WATSFIC (University of Waterloo Science Fiction Club) is a club for those interested in science fiction, fantasy, gaming and related activities.

The club was founded in 1975 and has staggered through the years with membership as low as 0 and as high as 214. In that time span the club has held movie nights, D&D Tournaments, game days, an SF convention (GoH: Spider Robinson), a SF week and assorted other activities.

continued on page 14

MFCF Blurb for mathNEWS

First year people often don't realize how many computers there actually are on campus. They see the machinery that is on display in the Red Room, they suffer through the many agonies of Widjet, and they wonder if that's all the university has to offer.

Well, there's good news. There are dozens and dozens of computer systems on campus, in Engineering, in Science, in Arts and Kinesiology: micros, minis, and a few full-sized systems. A good many of these systems are owned and operated by the Math Faculty through the Math Faculty Computing Facility -- MFCF for short.

The best known MFCF computer is the Honeywell 66/60 (often referred to as "the Bun" for reasons that are much too obscure to go into). The Bun lives on the third floor in MC 3016. It's behind closed doors, so you can't really see it in operation the way you can see into the Red Room. However, there are lots and lots of terminals in the neighbourhood of the machine room, so even if you can't see the computer itself you can watch people working with it.

The Bun is used for many purposes. Students in many upper year Math courses are automatically given Honeywell accounts to help them with their work. This applies to more than just Computer Science courses; people in C&O and Stats, for example, often use the Bun when they have to do a lot of complicated calculations. The 66/60 also has facilities that allow you to format and edit text quickly and easily. Because of this, many co-op students write their work reports on the Bun or use it to write theses and essays. (Speaking of writing and editing, this article is being written on the 66/60; mathNEWS itself is prepared on the computer and typeset on the Photo Econosetter, a typesetter that is hooked up to the Bun.)

There are many other uses for the Honeywell system. Many people use the Honeywell MAIL system as a convenient means of communication with groups of friends. In addition to the programs they write for assignments, students often write personal programs for any number of uses. And of course, the system has a wide selection of computer games that may be played in low use hours.

MFCF owns several other computing systems besides the Honeywell. For example, there is a UNIX system just down the hall from the Bun, in MC 3014. UNIX is a smaller system and therefore runs on a smaller machine; for several years it has been running on a PDP-11 computer, but just recently MFCF purchased a DEC VAX machine which will replace the PDP-11 in the near future. There are several courses which make use of the UNIX system. Those who do work on UNIX always comment on the elegance of the control language and the ease with which you can get work done.

If you happen to visit the UNIX room to see the machinery, make sure you have a look at the Hewlett-Packard Graphics terminals that are in the same room. These terminals are more than just typewriters with TV screens attached; they can be used to draw quite complicated pictures. If you're lucky, you might be able to look over the shoulder of a Graphics student as he or she is generating interesting designs. In addition to these terminals, there are one or two colour Graphics terminals hiding in a backroom on the fourth floor. Examples of colour computer art are often displayed in the trophy case on the fifth floor of the math building.

Besides running the many computers owned by the faculty, MFCF personnel also write a good deal of software that is sold outside the university. In this way, MFCF has built quite a reputation in the field, doing contract work for Honeywell and other companies. To maintain this reputation, MFCF is constantly in search of people who are interested in programming full-time or part-time. Just because you're a first year student, don't think that you aren't good enough. First and second year students are looked on favourably because they can take a term or two to learn the ropes and still have plenty of time to contribute (hiring fourth year students is often pointless -- by the time they get the feel of the job, they're ready to graduate).

If you're interested in programming for MFCF, contact Peter Fraser in MC 5048. If you aren't a programmer, there are other positions that might interest you. Every term several co-op students are hired to be operators for the 66/60. If you're a grad student, you may be asked to act as a consultant to students who work on the Honeywell. Finally, there are usually one or two special MFCF projects every term that need people to help with experimental programs or short-term contract work.

During the cold winter months to come, it is quite possible that you will find yourself working on Widjet at two o'clock in the morning, stuck in queue position 92 and wondering if this is all there is to life. Be assured that it isn't. There is life after Widjet, and a good portion of it is run by the friendly people of MFCF.

It is possible to fill up excess space in mathNEWS in many ways. One method

is the use of meaningless sentences which are of sufficient length to cover up all those nasty white spaces which mar the appearance of what otherwise would be a quality publication. You may well ask: "How does one think of suitable sentences?" The point is: no thinking is necessary. The typist merely puts down on paper anything that his tiny little brain can dredge up, all the while glancing at the barren space on his page to see whether he can end this farce or not. Glory be! I think I've reached the bottom!

The University Transition

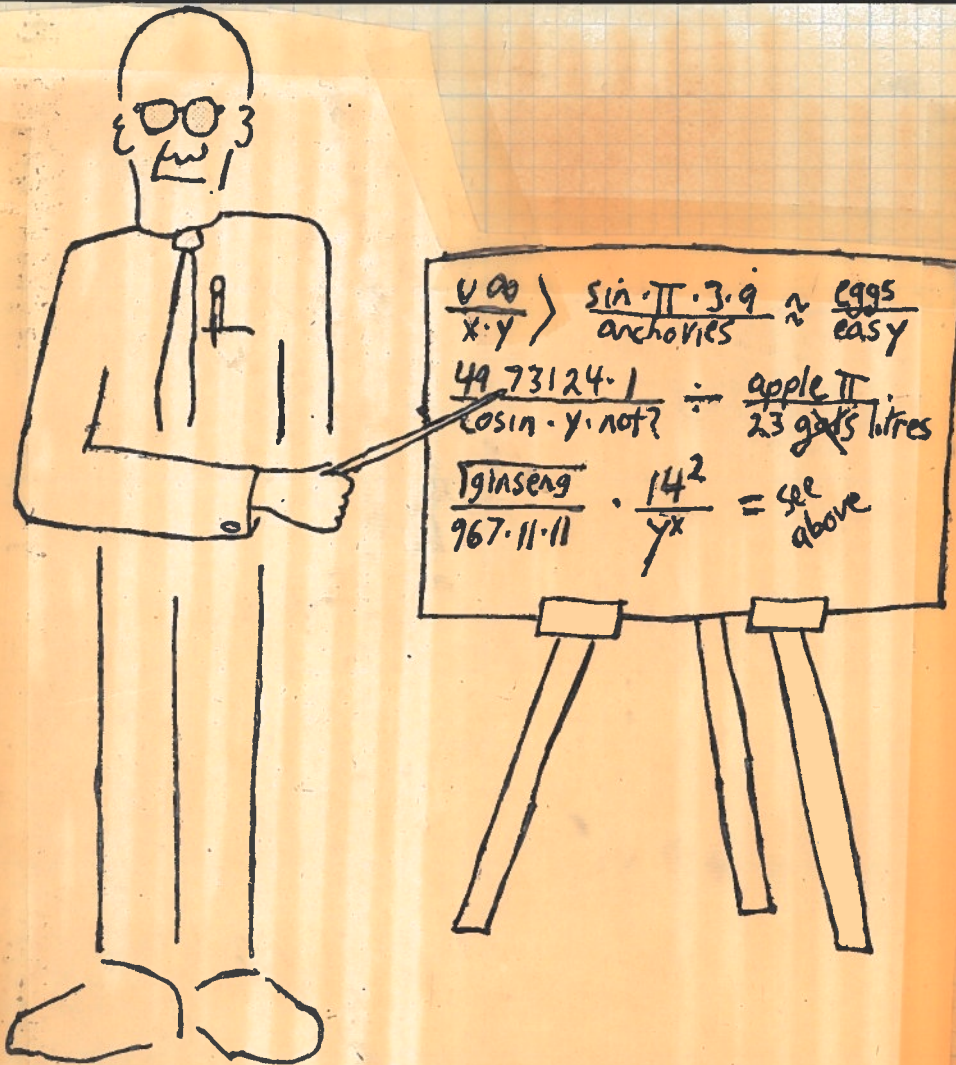
If you're reading this paper, chances are your Math marks were well over 85% at your high school. Pretty good by most people's standards. But it takes a certain type of mind to make the transition from the math you've perfected to the looser, yet more rigorous kind you'll see here.

For a while, and particularly if you are in General courses and not Honours, you will continue to see practical applications for every problem you are asked to do. Otherwise you'll be doing a lot of mental gymnastics, and maybe not understanding much. Some people will find they have a 'mental block' against university math. This block is not always alcoholic or even adolescent.

There really is a big difference in what you're going to see! Here's the biggest difference: *Drawing vs. Describing*. In high school, you've done a lot of individual problems. You know the techniques that you know because you did several problems from one section of your course work. Maybe you spent three weeks on surface and volume calculus. You've done enough mental depictions of the general principle that you know how to use it once you see it again. You've been drawing different pictures of the same mountain. Now you have to start describing! In what ways is this mountain (surface/volume calculus) like other mountains you've seen?

Maybe you've seen problems you don't think you could possibly solve. Like, what regular polygons are constructible using straight-edge and compass? You'll know how to do these problems within a year or two, but not without doing some abstractions. No one told you how to do this. It's not even multiple-choice! You are crossing the line from applied math into pure math. The whole concept of exactitude and rigour, which is vital to the best intentions of mathematics, is based upon the idea that, with enough thought, you can see all those mountains and point out every single similarity there is. You can have all the methods and tricks you need to get your answers on paper, but you do have the capacity to see beyond these.

It may mean sitting up till 3 on Thursday night, with your eyelids almost shut, but sometime you'll think up things you never thought you could. And no, you don't need to read racks of books; that can be the biggest waste of the time available to you as a university student, depending on your style of learning.



Demonstrating the obvious

September 1981
University of Waterloo

Dear Mom and Dad,

Everything here is great, except for the food! There are these people here called Food Services... yuk! But the only other place I can go is the machines and they're just as bad.

But yesterday, I was in the 3rd floor lounge of the Math & Computer building. There's this place called the C+D... no, it's not a new hallucinogen, and has nothing to do with perverse sex acts. It's Math Society's Coffee and Doughnut Stand. They have all sorts of great food there.

For breakfast, there are all sorts of doughnuts, muffins and bagels. They have coffee, tea, soup, hot chocolate and all the different kinds of juices you could think of. After a couple of morning lectures, if I'm still awake, I can have lunch there too. For instance, yesterday I had a salad and a roast beef sub. And there's bunwiches, pop, iced tea... all sorts of stuff!

Don't worry, I'm eating well now. By the way, don't send any money... C+D's prices are the best around!

Your darling frosh

P.S. They don't eat money like the machines, either.

*Math Society Coffee + Doughnut Stand
Monday to Friday - 3rd Floor Lounge - MC*

Why not drop in for a bite today?

C+D is run entirely by the University of Waterloo Math Society independent of Food Services.

Tight on money?

Herewith a guide on how to shop for a part-time job in K-W

Waterloo being a university town and Kitchener being a meat-packing smoke-spewing industry town, there could hardly be a more ideal place to find a part-time job for the university student.

The university (particularly the Dept. of Computer Science and the Faculty of Engineering) regularly hire students for a term's work, usually without advertisement. There are many opportunities for this kind of student to find employment in Waterloo. On the other hand, there are higher-paying jobs elsewhere, in service industries as well as in industrial companies like J.M. Schneider, B.F. Goodrich, Uniroyal, and others. Not all part-time jobs, but worth looking into at any rate.

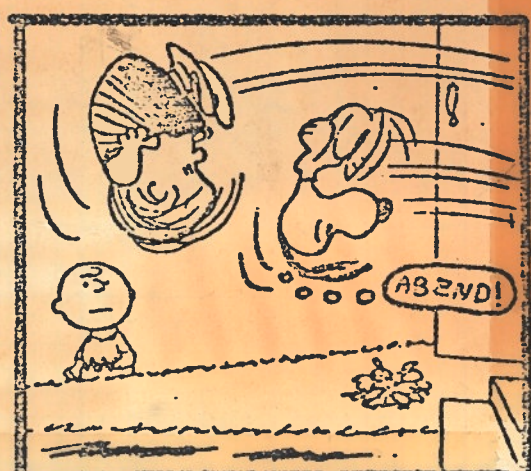
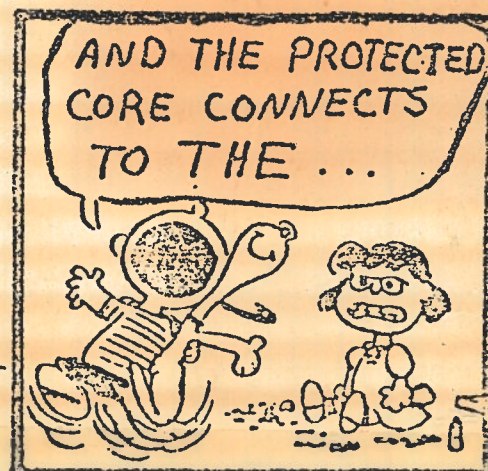
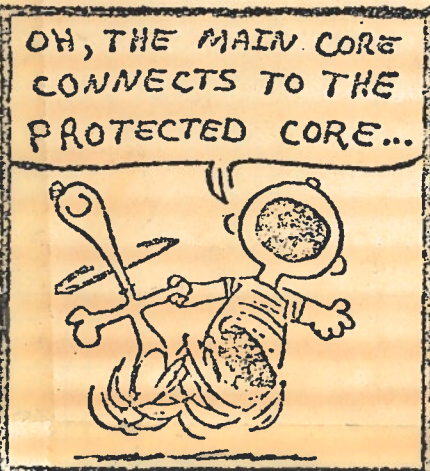
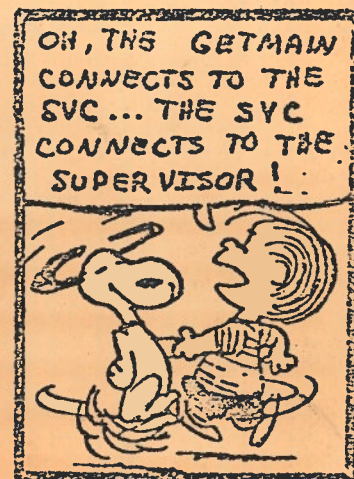
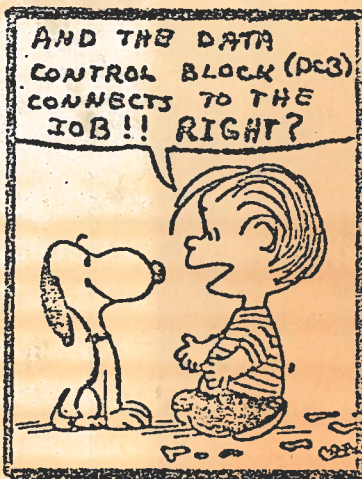
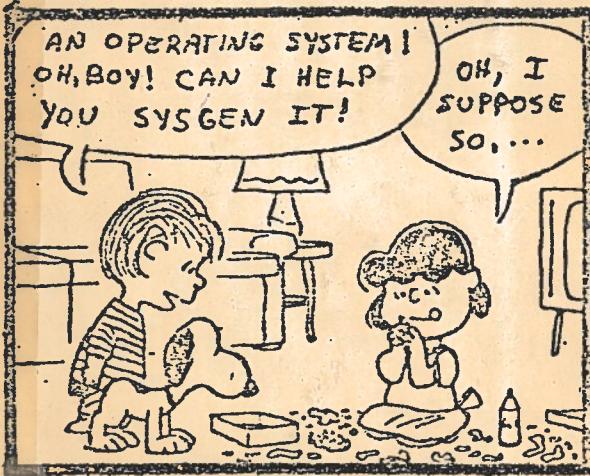
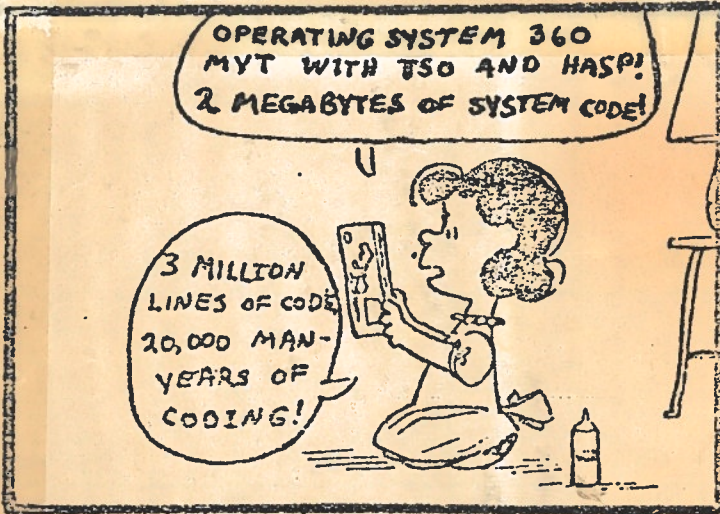
If you prefer there are alternative ways to make a little money on the side; many residences remunerate their proctors or dons (usually 2nd, 3rd, or 4th year students) quite handsomely, but it is a responsibility one must take seriously. The Campus Centre has a handful of Turnkey positions open each term. The Games Room is also a popular place to work; not to mention the Bombshelter (the C.C. pub) and Scoops (the ice cream stand). The libraries on campus hire some students for stacking and shelving and cataloguing and checkout. Also the Math Faculty is always in search of tutors and markers for junior Math courses, especially once you have reached 2nd year. These jobs require about 3 to 5 hours of work each week, for which you are paid about \$230 a term; this is a worthwhile choice as well.

There are paid positions in the Math Society itself, such as the manager of the C+D (Coffee and Doughnut) stand, which pays \$50 a week. Other services, such as student painting and moving, are constantly in demand and with a little work can pay rather well.

If you really do want to work, there is usually someone who wants to hire you. The essential element is the ability to talk it up in the community, maybe your house in the Villages, maybe your entire neighbourhood if you live off-campus. There have even been instances where students have made money by renting student apartments and subletting en masse to other students at a shade more a week. Hopefully, with OSAP and other funding available, you won't have to resort to such scrounging! But it pays to have a secure monetary situation; else much of what you could be learning while on your own is lost to you. Good luck to you all.

MISERS may enjoy reading page 4 as well.
(Pardon the overkill)

Note: You may not know what these acronyms mean, but you'll find out soon enough!



continued from page 14

Meetings are weekly and are usually located somewhere in the Math building. Membership fees are currently 50 cents a term. Our office is M&C3036 (and is sometimes open). There is a club library of books (about 1000), magazines (Analog, Omni, Dragon), games (a dozen or so) and assorted fanzines. All of these are available to members who wish to borrow them.

We produce, on an irregular basis, a newsletter, *WATSNEW*, in which articles on diverse topics, such as reviews (movies, games, books, conventions et al), announcements (upcoming conventions & tournaments), science news, results of sf&f awards, poetry, D&D hints, stories (which sometimes take years to finish... talk about cliff-hanger endings), contests, surveys and anything else the editor can get his hands on.

As our constitution says, the aim of the club is to "promote science fiction and any other activities the membership deems of interest." The other activities of interest are entirely a function of the people who decide to join the club. So why don't you come to the organizational meeting for the new term (second week of September) and see what it's all about. And if you're really interested you can become one of the executive (elections are held at the second meeting for President, Secretary, Treasurer and Secretary of War).

Gjmillin

It's too late, you have crossed the equality threshold and have landed behind enemy lines..... No, it's not that bad, except that you must now absorb this thing we (erroneously) call a MASTHEAD. Something like an ERASERHEAD, only more vile and public. This is wherre (french spelling) the demented editor, or whoever be awake at the time the pages are completed, rails on about the exams he will fail, how much his head hurts, and being generally obnoxious about how little real creativity he possesses. Or how little knowledge of speling (I swear that 'twern't intentional - ask Mr. Till!!!) and grammar he has.... Oh boy, now I have a whole 8-1/2 " to play with... except that we didn't nail that article down too well, and so that line had to --- whoops! what a mess. To use Liquid Paper on such a disaster would be a denial of my desire for entropy. Wait, wait, the moster (monster) has awoken! Dave's fingers are waving through the air, he wants to touch the keyboard - he needs it! Oh dear, oh dear, oh NOOOOO!

K H G U R K S D K F U E J H F W R K L J K H D F j K J F H E F J E R

I've been mortally wounded by an auto-repeat hyphen key!!!! I am destined to live out my days in that land of Silliness which has consumed so many editors and brethren of

Confuse-A-Frosh⁻¹ Dictionary

Most of the stuff you read in this issue is designed to help the young, helpless first year students figure out what the hell is going on around here. Therefore, we have designed this dictionary to add a little obfuscation to what would otherwise be a helpful guide to this here university. (**snick**)

Artisie: A person who spends his time discussing the true meaning of life. (He has the time, because he has one-tenth the work that we do!)

Hack: (1) May be found around terminal rooms at about 4 am. However, not to be confused with CS370 students!

(2) It is hard to define 'hack' exactly, but look for these tell-tale signs:

- (i) a tendency to speak ASCII
- (ii) (or EBCDIC)
- (iii) withdrawal symptoms when the computer is down
- (iv) knowledge of 2048 programming languages

Village II: (also known as 'the zoo') Need we say more?

Village I: Same as above, except with single rooms.

Village Food: In two words - *it's consistent!*

Co-op Students: People who sit in classes for four months and take up space in order that they can go out on work terms and make *MONEY!*

Engineers: Unfortunate, loud-mouthed beings who cannot read without moving their lips (and the page).

MathSoc: Always loud, mostly helpful place where people can go when they're confused.

CSC: Nice place to go when you want to sit down and talk about computers, bikes, sailing, Hunter S. Thompson, flying...

Bombshelter: A place to go after exams (it's the campus pub, in case you didn't know.)

Watpubs: Places you can go on your work terms if you're homesick for the Bombshelter.

'BUN: (a.k.a. honeybun, honeywell, COMPUTER!!!!) One of the better, older and least reliable systems on campus. (This rag is produced on said machine!!) If life is not going well for you, you can always sign on at 3 am and play ADVENTURE... Very instructive...you will learn new and exciting words such as GCOS and DATANET and concepts such as CRASH!

WIDJET: *Everybody* uses it and *Nobody* likes it!!!

IBM: (a.k.a. Itty Bitty Machines, Incredibly Bureaucratic Machinery, I Been Moved!, etc.) Company that manufactures freezers that think they are computers. Soon to go the way of the horseless carriage, the 5¢ cigar, and the 95¢ dollar.

UNIX: God.

Pub Crawls: And you really do!

Games Room: A way to support the Feds.

Arts Library: (a.k.a. The Great Sugar Cube In The Sky) Mostly used by artsies, but contains material of interest to others (i.e. Playboy on microfilm) - enormously large white object visible at a distance of several miles and looking like a monument to a capricious war god. (This building is slowly sinking, so watch your step!)

Engineering Lecture Hall: Disgusting-looking subterranean structure into which (n-1)-jineers are herded.

Math and Computer Building: Where you'll be spending the rest of your natural-born days. A large grey building with bizarre room numbering systems and a consistently maintained temperature of either 45 or 95° (Fahrenheit). (95° during the winter and 45° during the summer.)

Physical Activities Complex (and it has one!): This is where individuals count at the University of Waterloo: 10,000 of you sit in the same room, all writing the same exam.

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math NEWS!



Kitchener Transit bus routes that pass through or travel near the university:

- 7 - Mainline
- 8 - North & South Loop
- 9 - Lakeshore & Lincoln

Bus schedules are available in the Campus Centre near the turnkey desk - for more information call...

Kitchener Transit
Transit Info 885-7373



USEFUL PHONE NUMBERS

Emergency Numbers For K-W Area:

- Fire
 - Regional Police
 - Hospitals
 - Ambulances
 - Poison Control
- dial 911

UW Switchboard	885-1211
Health Services	ext.3541
Security	885-1239 or ext.3211
Campus Centre	884-8770 or ext.3867
Mathematics Society	ext.2324
Federation of Students	ext.2405
Career Information Centre	ext.3001
Arts Library	ext.2611
EMS Library	ext.3261
Student Awards Office	ext.3583
OHIP	745-7379
Legal assistance	885-0840

BUSES TO TORONTO

Federation of Students Express

Note: the schedule given is from last winter, when the buses last ran. More up-to-date information may be obtained by visiting the Federation of Students' office in the Campus Centre.

Departures are from the North Loading Zone, Math and Computer Building, every Friday at 1:30 and 4:30 pm. Point of arrival: Islington Subway Station. Also, an express bus to Waterloo leaves from the Brewer's Retail parking lot at Bloor and Islington Sundays at 9 pm. Tickets on sale Thursdays only in the Federation of Students office beginning at 9 am; supplies are limited. *Note: the drivers cannot sell tickets!!*

Grey Coach Buses To Toronto

Departures from the Administration Building Monday through Friday at 3:45 pm and 5:05 pm, with additional Friday service at 12:01 pm, 3:05 pm and 5:05 pm.

Departures from the south university entrance Monday through Friday at 3:48 pm and 5:08 pm, with additional Friday service at 12:04 pm, 3:08 pm and 5:08 pm.

Buses also leave regularly for Toronto from the Kitchener Grey Coach bus terminal.

Although this will never be a collector's item, why not rip this page off your mathNEWS and stick it in your binder! (see over)

Schedule

CLIP THE PAGE WITH

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

8:30
to
9:20
(ugh!)9:30
to
10:2010:30
to
11:2011:30
to
12:2012:30
to
1:201:30
to
2:202:30
to
3:203:30
to
4:204:30
to
5:207:00
to
10:00