

math NEWS

Volume 40 Number 5

7 March 1986

Protest Underfunding!

As you probably know, University of Waterloo will be holding a protest against underfunding on Wednesday, March 12th. This protest is supported by the Federation of Students, Grad Students' Association, student societies, University Administration, Faculty Association, Staff Association and the university CUPE local. The outline of the protest is as follows:

- Classes are cancelled for three hours, from 10:30 to 1:30
- Gather in front of Arts library at 10:30 for a rally
- March with WLU to Waterloo Square and City Hall
- Everybody should be there: students, administration, faculty and staff

It is essential that we have an excellent turnout, or we will appear just plain silly out there. We want to emphasize that we're all in this together: all universities, students, faculty and staff. In order to fight underfunding we *must* exert public pressure on the government, and to do that we have to make sure that the general public becomes aware of the problems. The protest will be covered by all the major media—this is our chance to make an impression on the public!

Fund Education ... Fund the Future



MATHSOC PRESENTS
The Pretty in Pink

WINE &
CHEESE

Sat. Mar. 8
South Campus Hall

Mathies \$4
Others \$5

beverage coupons 3 for \$1
special bonus with Pink Tie

How the West Was Won (Warriors Band Style)

Friday evening came clear and cold. The caravan was preparing to depart for the long journey west when all of a sudden something went wrong...

"We don't have enough cars! Quick, find the fan bus and see if you three can get on!"

No luck. So, for the first time in a long time, the Warriors Band actually had too many people for a game. Paul McKone, the Chief Centurion, and Jane Smyth, clarinet player extraordinaire, decided they would make the ultimate sacrifice and not go to cheer the Warriors on a road game.

Their sacrifice was not made in vain, for the portion of the Band (one trumpeter, three saxophonists, a French horn player, a trombone player, a sousaphonist, two flautists, a recorder player and a bass drummer) piled into vehicles and headed for Western for the first game of the OUAA West Division championship tournament, and brought back a 77-55 victory over the McMaster Marauders, sending the Warriors into the final against the much-hated (and deservedly so, in the inter-university athletic spirit of things) Western Mustangs, who defeated Laurier 87-75 in the other semifinal the next day.

The game against McMaster was no contest for the Band, even though its leader was left behind in Waterloo. There was no competition, and the crowd was quiet, even for the number of Waterloo fans there.

But the Band could not rest on its laurels. Every member at the game last Friday knew they had to return the next afternoon to do battle in the much-anticipated showdown with Western.

And so they did. Everyone who showed up could go, and there was even a small surplus of seats in vehicles! A small advance party went ahead of the main group to stake out the Band's territory in what was expected to be a packed auditorium. It turned out this was not necessary, as only about 800 people showed up to watch the game (about a quarter them were cheering for Waterloo).

The Band had an easy time with Western's three-person, one-horse cheerleading section. The horse taped up a sign saying "Warriors Fall at Alumni Hall." The Band just laughed at this feeble attempt to divert it from its Prime Directive, and started playing. They drowned out the cheerleaders. They drowned out the noisy, preppy, scummy Western fans. They drowned out the PA announcer. They played and they yelled and they celebrated as the Warriors, down by five points with 4:55 to play, took the lead two and a half minutes later, and never looked back. They watched Randy Norris make more than half of his free throws as Western, in desperation, fouled him in an attempt to gain possession of the ball and take control of the game. They watched Peter Savich get knocked to the floor and complete a pass to a teammate which lead to a basket. They watched the Warriors avenge a five-point loss to Western at Waterloo two years ago as the horn went with the scoreboard reading "Visitor 71, Home 66."

There were no tears of joy from the Warriors; neither were there tears of sorrow from the Mustangs. This was tough basketball, an exciting game where the winners are the fans and the creator of the game. This was a championship game. Both teams were rewarded for their efforts with berths in the CIAU playoff tournament: Waterloo as a conference champion, Western as a wild-card qualifier. They join 14 other fine teams (well, maybe 13... Toronto doesn't really count as a fine team) in the tournament. And the Warriors Band will go right along with the Warriors basketball team, every step of the way, cheering them to that beautiful, elusive CIAU Basketball Championship.

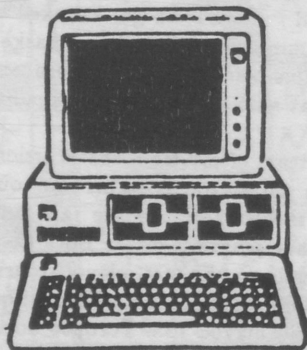
dwarf

LookAhead

Math Events	
8 Mar	Infamous Wine and Cheese (SCH)
10 Mar	Last week to buy faculty glasses (4/\$10)
19 Mar	The Box end of term concert
22 Mar	Math Grad Ball
Co-Ops Only	
7 Mar	Rankings Due (4:30 pm today)
17 Mar	Employment Results Available
Fed Flix \$1 Feds, \$3 aliens	
AL116 at 8 pm (extra shows at 10:30 pm on Fri, Sat)	
7-9 Mar	Remo Williams: The Adventure Begins
14-16 Mar	Jagged Edge
Cinema Gratis 9:30 in the CC—it's free! (with selected short feature)	
12 Mar	Road Warrior, Mad Max
19 Mar	Falcon and the Snowman (Vertical Roll)
DCS Courses Free!	
Contact DCS (MC 2045) for more information	
7 Mar	Tandy Products Demonstrations
10-12 Mar	UNIX™ for Documentation
10-12 Mar	CMS Part 2
UW Arts Centre	
Call 885 4280 for more info and tickets	
8, 9 Mar	Steppin' Out '86
12-15 Mar	Richard III
17 Mar	Peter Samelson (magician)
Other Events	
7 Mar	Notes from the Electronic Underground (Concert)
7, 8 Mar	CIAU Regional Four Basketball Tournament (Winnipeg vs. McGill, Calgary vs. Waterloo)
11 Mar	Campus Day
11, 13 Mar	Pascal Lectures on "Science and Apocalypse" with Colin Russell
12 Mar	The Big Shutdown!
mathNEWS	
(We've gone weekly!)	
10 Mar	Deadline for articles
10 Mar	Next production night™ (MC3038, 7 pm)
14 Mar	Next mathNEWS hits the streets

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Prezz Sezz

Just a few reminders. Saturday March 8 (tomorrow) is the infamous Math Wine & Cheese SCH 9 pm. Theme: *Pretty in Pink*, so wear something pink if you're proud to be a Mathie. Math and Bent are having an Underfunding Awareness Pub Tuesday night, March 11 at Fed Hall to drum up some enthusiasm and prepare ourselves to march, Wed. March 12 10:30-1:30 along University Ave then onto King St to downtown Waterloo. Our famous Prez (not me) Doug Wright along with Deans and other important people will be heading the procession. There will be complete media coverage and police escort so come on out and show your support and concern. Remember this is for your education. On Wed. March 19 at Fed Hall we along with Bent present *The Box*, a fast up and coming band from Montreal.

Socially Speaking

The Forgotten Rebels were a tremendous success at Fed Hall last Friday night. Look for a return engagement next fall.

Next on the social calendar is the awesome Wine and Cheese. For all mathies this is a MUST event. Of course, about 350 of you guys always show up. But, I'm hoping an additional 50 Wine-and-Cheese-Virgins will come out to this one. The theme, once again, is *Pretty in Pink*. (Blair, just shut-up and drink!) The tunes are great, the wine is french, dry and VERY inexpensive and... wait there's more... you get three FREE glasses with your Pink Tie.

On Wednesday the 12th of March our University is planning a Shutdown Day to bring attention to the problem of underfunding. MathSoc, therefore, brings you a FREE Shutdown Pub at Fed Hall on the night of the 11th. There will be no band, but prizes will be awarded—so all you poor students COME ON DOWN!!!!

The lack of good bands this term in disgraceful. Especially when you consider that the Fall, the Cult, Fine Young Cannibals, the Colour Field, the Violent Femmes, Lloyd Cole and the Commotions, etc. are all touring now and are in the area. The term is almost over and no good bands (these or others) have been nabbed for March. Remember all band bookings must be made through the Feds. Is UW really the same university that just a few years ago brought you O.M.D, the English Beat, the Stranglers, Echo and the Bunnymen, Joe Jackson etc...? WHAT HAPPENED?????

Lisa Seabrooke
Social Director

Forgotten Rebels

No Robot Music Here!

Last Friday, MathSoc brought Forgotten Rebels to Fed Hall for a unique night of entertainment. This was the first time in the short history of Fed Hall that a band with any punk pretensions had played there, and, clearly, there were a lot of people there who had never been to Fed Hall before (watch out Larry!).

The Rebels play their own, unique, style of music, which can be classified as almost anything except subtle or refined. To wit, they're an "equal-opportunity band", managing to offend everybody equally: consider "Third Homosexual Murder", "Do You Wanna F___ Me" and "Elvis is Dead". With songs like "Did You Miss Me", "Surfing on Heroin" and "The Me Generation", the band filled the dance floor with a maelstrom of bodies slam-dancing like never before at Fed Hall.

The music prompted everyone to let loose, and practically everyone at the show claimed to be having a great time. You could drink, watch & listen to the band, and watch the people. Now *that's* entertainment! I believe that Fed Hall should offer a variety of acts, including ones off the mainstream. The Rebels shouldn't maybe play there every weekend, but such acts should be brought in regularly to complement the "normal" offerings.

The Left Nostril

FeedBack

Dear Icd:

You Scum, you promised me that you had put gum on their seats, and reading last week's issue I find out that you haven't. Maybe I should put gum on your seat? Or maybe I'll give you a piledriver! So watchout.

I also read that you are going weekly, why? Do you know how much trouble it is to come up with all of those stupid questions? And while I'm at it, what the heck happened to Chuck? Will somebody please tell me?

R.D.T.

Listen up, R.D.T.:

Both you and the entire back row are in for more than just gum on your seats if you throw me threats. I may appear to be a mild mannered mathNEWS editor, but in reality i'm a notorious supervillain (Watman is another do-gooder on my list). As far as your stupid questions are concerned, aren't my scientifically valid responses enlightening enough to make it worth the effort.

Incidentally, according to my sources, Chuck Cunningham is alive and well and working somewhere at the University of Waterloo. Check the staff directory.

lower case dan

Dear Sirs,

I wish to protest in the strongest possible terms the letter in your last issue in which Ronald Reagan was referred to as a monkey. I have been a staunch conservative for a number of years and feel that Mr. Reagan has done quite an admirable job. Why don't people make fun of Walter Mondale, or Jesse Jackson, or any other member of the Democratic Party, for that matter.

Brigadier-General Sir
Charles Arthur Strong (Ret)

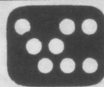
Dear Chuck,

mathNEWS will make fun of anybody who gives us half an opportunity. It just happens that staunch conservatives and American Presidents give us lots of opportunities.

dan the editor

On behalf of the Math Marauder 'B' Ball Hockey team, I am pleased to announce that our illustrious season has ended on a one-game unbeaten streak.

T.M.M.
(The Masked Marauder)



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CSC Flash!

The Computer Science Club and Themis present:

"Notes From The Electronic Underground"

an electronic concert by Buxton And Company

Buxton & Company is a loose collection of performance artists from a number of disciplines. Their music is a fusion of jazz and rock, and is played on the newest synthesizers and electronic instruments, along with the traditional jazzy acoustic ones.

Their newest acquisition is the Yamaha Pitchryder, a special electric guitar which can control *six* different synthesizers, one for each string. *Wild.*

All of the works to be performed have been written especially for the group. For this performance, the ensemble is made up of four musicians.

For this concert, the performers are:

Bill Buxton, composition, tenor sax, lyricon, and synthesizers

Claude Desjardins, drums and electronic percussion

David Grimes, composition and synthesizers

Jeff Riches, guitar and guitar synthesizer

Be there, for the latest in high-tech jazz.

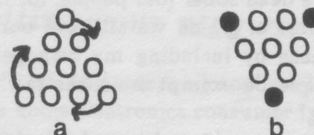
Friday, March 7th (today!), 8:00 pm, **Humanities Theatre**

CSC Members: \$3.50, Feds: \$4.50, Others: \$5.50

Mathematical Puzzles

Solution to last week's puzzle:

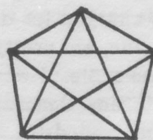
Only three pennies need to be moved as shown in the diagram:



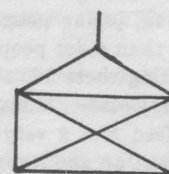
This week's puzzle:

Which of the following figures can be traced without lifting your pencil off the paper or tracing some lines twice. For the figures in which it is necessary to lift your pencil from the paper, find the minimum number of times you must do so.

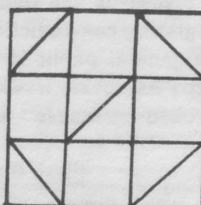
a)



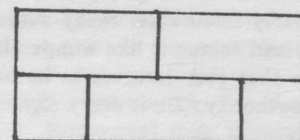
b)



c)



d)



Slash's Shoebox

IX. Thinking and Thriving

Often times, in the world in which we live, there is discontent. We are programmed to accept that which we are told to do without quibbling. There comes a time, however, when the authority *must* be questioned if the general good of society is to be preserved; the rules are *crazy*, and the rulers out of control.

I have been drinking for about the same length of time that I have been driving; during those years, I have been drinking and driving. While I was, I never once felt that my safety, the safety of my passengers, or the safety of other motorists or pedestrians was compromised by my 'impairment' due to a moderate alcohol intake. I am a good driver; I am a safe driver. I know what I can and cannot do behind the wheel.

It appears now that certain 'authorities' in this country are claiming to know my abilities and limitations better than I. If I choose to drive with more than a beer or so under my belt, I am 'impaired', and I am subject to suspension of my licence for a year, a fine, a drastic increase in my car insurance rates, a criminal record, and perhaps even imprisonment. There are a number of things about this "If you drink, don't drive" mentality to which I strongly object, and I would like to outline them here.

First of all, there are a number of people who are somewhat drunk a fair bit of the time; these people are sometimes referred to as 'drinkers', but they are not necessarily alcoholics. They have been driving while under the influence for years; they are good at it, and they know how to do it safely. These people are no more a threat to the general good than anyone else on the road, and may, in fact, be better drivers than most. Many people who are casual drinkers, like myself, fall into a similar category. On the other extreme, there are a number of people on the road who are impaired to a great degree all the time, while they are dead sober (old people, for instance, and other genres of crummy drivers of which we all have our own favourites; I will not colour this piece by including my own personal prejudices). Why should these people be exempt from the law just because they have not been drinking?

Secondly, the methods employed in enforcing the law are unjust. The decision to allow spot-checks was a judicial sham, one of many in this country in recent months. Stopping people indiscriminately to check their breath is unfair to those who have not transgressed; these people should be compensated for their inconvenience and uprightness, but such a thought is not in the government's 'game plan', despite the cash they have already sunk into this campaign.

This brings me to my third point, namely the distasteful and grandstanding nature of the media blitz. Why do these commercials (most concentrated on the radio) come at us now in such volume? (they used to run them only around holiday weekends). How much must this be costing the taxpayer? A lot. Why are the ads geared at (and featuring) young people? Are more youths charged for drinking and driving than older people? I doubt it. I, for one, am pretty damn tired of hearing these ads every time I turn on the radio. I would like to take John Crosbie, Minister of Justice and Attorney General of Canada, and feed him a very large brick. If I drink and drive, it's my business. Shut up and leave me alone.

In a country where so much emphasis is placed on the rights of the individual, this policy area stands out as a glaring contradiction to the party line. I am really surprised that the general public is lying down and taking it like wimps. Like the recent PAC locker issue, it is a rule that just deserves to be broken, and broken *en masse*. Question authority. Do it every day.

Slash Sinatra

Impotency

Ready. Steady. Go.

(Ok, we're off.)

It has come to my attention, in a roundabout (and not necessarily desirable) way that I have not written much lately. No matter—nothing a few classes on a sober Wednesday can't take care of.

Maybe. I pause.

I collect and recollect, but do not write.

What we have here is a simple case of not getting started. Damn.

I'm losing my audience.

I'm losing my nerve.

I'm losing my ability to write more than one sentence per paragraph.

Where's my editor when I need him? Where's my analyst when I need him?

Where's the twenty dollars I lost nine years ago in Huntsville?

(Was I sexist two paragraphs ago? Sorry, people.)

Ok. Get a grip on yourself. Let's start again.

It was a dark and stormy night.

Naw. Too traditional. Also, it's overused in the Peanuts comic strip.

I am. I was. I will be. Whatever.

(Now we're getting carried away!)

Empty thoughts in my empty head. My empty heart cries out.

Too poetic.

I don't know. Does anybody out there have any good ideas? Is anybody still reading? Am I wasting my time? Is this stuff worthy of the paper it's on?

I'm sorry. Forget it. Go on to the next article. It'll probably be better.

grmcfarlane

From Jiller's Desk



Tickets for the MGB Raffle
Available Soon !!

Of course, Father, Guido and Gino would be more than glad to take up the collection again this Sunday.

The Adventures of Watman

Our heroes had just returned to Watham City from their work terms. They even got time from their employers to write their work term reports at work, and so were ready for another nice relaxing academic term.

Or so they thought. At that very moment, in the back of the General Services Complex, something very rotten was taking shape...

"Ha, ha, ha! When this gets into the serving trays on the first day of classes all of the money the co-ops have earned will be mine!"

"Duh, yeah, boss, but, duh..."

"Come on, spit it out, you blathering wimp!"

"What stops them from going to McGinnis Landing for dinner? I mean, they're all coming back from work terms, so unless they were in Rec they have money to spare."

"Well, you're just going to have to get a job at Labatt's and put the drug in every bottle of brew they make now, aren't you?"

"Moonshining... I mean, moonlighting?"

"Well, look at it this way. The University has an anti-moonlighting policy. If you do it, you're fired by them, and if you don't do it, you're fired by me. But I will cut you in for a part of my take."

"Sounds reasonable to me, Choker. I'll start tomorrow."

Meanwhile, back at stately Wright Manor, our heroes were lounging about awaiting the recycle of their schedules.

"Watman, do you recommend taking Graphics and Compiler concurrently?"

"No, Duck, that's too slack a workload for us superheroes to handle. Take those two and Real Time as well."

"But Real Time is full. Maybe Comparative?"

"Sounds OK. Is that the Watphone?"

"What phone? Oh, *the* Watphone!"

"Hello? Oh, how are you, Chief O'Henry? And how is dear, sweet Marie? Oh, an emergency? Who? What? Where? When? Why? How? Now? A brown cow? Oh, no cow, just pork. Of course, Chief. We'll be right there, just as soon as we get our RRSPs. Good-bye, Chief. Duck, down the Watpoles! Someone is trying to poison the Village food!"

"What's so unusual about that?" mused Duck to himself.

In the Watcave our caped crusaders were faced with a horrible mess. The Watcomputer had physically destroyed itself. Little iron rings were strewn all over the floor.

"Holy core dump, Watman! What happened?"

"I don't know. You were that last one to use it."

"But I thought it *liked* Waterloo BASIC!"

"Don't worry about it now, Duck. We have work to do!"

The Watmobile raced out of the secret exit from the Watcave and sped toward campus.

"Watman, schmatman! Who cares about him? He can do nothing to stop us from getting all the co-ops' money."

"Well then, what is he doing pulling up here in the Watmobile?"

As the Choker's henchman spoke Watman and Duck simultaneously drop-kicked the door.

"Ouch!" yelled Duck.

"That's what you get for trying to be the lead instead of the cute little second fiddle that you are, Boy Mallard. You should be more careful. Now to the business at hand. Hello, Choker, long time no see."

"The same for you, Watman, but not long enough! Boys!"

The Bipartite Brigade was surrounded by four cooks armed with ladles. The cooks looked at their weapons and immediately exchanged them for meat cleavers. Watman and Duck chose their two opponents each and braced themselves for the initial assault.

CRUNCH!
CHOP!!
CLANG!!!

Our heroes were knocked unconscious by a barrage of flying muffins thrown in their general direction by the Choker.

"Tie them up, boys, and put them in the pot. Then we'll wait for them to wake up again before we finish them off."

A short while later they awoke. "Unnh. My head hurts. Where were we last night, Watman?" groaned Duck.

"It's not last night that's causing the pain, Duck. It's the aftereffect of being hit in the head with a Village muffin. The Choker here has just become the head dietician at Food Services."

"Correct, Watman!" crowed the Choker. "And soon I will be rid of you forever! Start pouring, boys!"

A large vat was rolled up to the pot containing our heroes. Two cooks each grabbed a handle and poured a thick, steaming liquid into the pot.

"Turkey gravy—our finest. After all, it's not often we have company for dinner. In fifteen minutes the gravy will congeal and solidify into something almost as hard as diamond—with you two trapped inside it. Then we take you out of the pot, slice you thinly, put each slice on a slab of bread, place them on the steam table, and presto! Hot two-tone turkey, er, duck, sandwiches!"

Oh, no! Our heroes certainly are in a stew. Will they survive being immersed in turkey gravy? Can the Crusading Capers put an end to the Choker's diabolical plot to rob the co-op students of the University of Watham City of their hard-earned income? And what will the side dish be if our heroes *are* served at Sunday brunch? Find out next week, same Wat-time, same Wat-channel!

Na-na-na-na na-na-na-na, na-na-na-na na-na-na-na, **WATMAN!**

The Chuckler

Consumer Tips

Getting your very own stereo

My roommate, an engineer/philosopher, has produced this set of useful tips for the home electronics consumer...and stereo enthusiast.

1. Carefully calculate power requirements, based on room dimensions, etc. Multiply by a factor of 100.
2. The ideal system should have as many lights as possible, preferably blinking and flashing in time with the music. (NOTE: not the 60's psychedelic kind, but sleek arrays of LEDs)
3. The components should all have black metal finish, and generally look very cool.
4. The system should be broken up into as many components as possible. (eg. pre-amp, pre-pre-amp, post-amp, etc.)
5. The most important part of a stereo system is the speakers, they should look very cool. Size and number of sub-speakers is important. (e.g. woofers, tweeters, sub-woofers, super-sub-woofers, etc.)
6. The system should resemble the cockpit of an F16 or 757 aircraft.
7. The system should have full remote control capability, including over the mobile auto cellular phone so that the stereo can be playing as you get home.
8. Should have the capability of playing different music in every room of the house.
9. Components should have a cool names. (like Nakamichi, Bang & Olufsen, Akai, etc. -- NOT Luxman, Soundesign or Magnavox)
10. The complete set up should put a major recording studio (or large radio station to shame).
11. Having state of the art equipment is not enough. You should be a year or two ahead of everyone else. Equipment over the warranty period is obsolete and should be disposed of promptly.
12. The most important factor.... Out of everyone you know who owns stereo equipment, yours should be better.

Todd Cooper

From the Mouths of Profs

A typical bunch of Canadians; I'm telling you how to make money and you just want to go and eat your bloody lunch!

Larry Smith, ECON 101

David (Poole) has trouble with chalk.

Randy Goebel, CS 486

It's a bit like jumping on grapes and seeing the stuff come out the bottom.

Randy Goebel, CS 486

Actually cats are very clever, they know when you are allergic to them, and then they jump in your lap.

Randy Goebel, CS 486

I just notice your presence when it's not here.

Bev Marshman, AM 260

The frequency is different yet already still.

Peter Ponzio, AM 260

Don't you think that mathematics is like solving mysteries?

Ross Honsburger, C&O 380

It's harder to go backwards in time than it is to go forward in time.

David Huron, MUSIC 231

And now back to something interesting.

Neil Ostlund, CS 335

I actually had it right in my notes, but I was overzealous.

Dan Field, CS 488

Does everyone understand? OK. Now let's talk about something completely different.

Dan Field, CS 488

If I was successful, I would not be teaching second-year algebra to second-year students.

H. F. Davis, MATH 224B

When the Poincarè index is useful, is useful, and when it ain't useful is useless. You can't argue with that!

Peter Ponzio, AM 391

What do I want to say? What am I supposed to say?

Neil Ostlund, CS 354

What does this thing say? Anybody know what I am doing here?

Neil Ostlund, CS 354

When in doubt, procrastinate.

Ian Munro, CS 360

Then you fall off the end of the earth, which is a bad thing to do.

Ian Munro, CS 360

Put your hand up if the person beside you doesn't understand.

Ian Munro, CS 360

Turing machines are allowed to swear to themselves; they are just not allowed to write obscenities on their tape.

Ian Munro, CS 360

Numbers don't have any real identity. They're just symbols.

Keith Rowe, MATH 234A

I just got chalk dust in my eye. Fuck!

Erich Fraga, CS 337

... and that better not end up in mathNEWS...

Bill Pulleyblank, C&O 370

... not with mathNEWS, you idiots!

Ken Davidson, PMATH 351B

There's a certain amount of uncertainty as to what theta is.

Prof Mischenko, MATH 130B

What am I doing?

Prof Mischenko, MATH 130B

Little trains of thought require tracks.

Ronald M. Green

This machine moves to the right, to the right again, and keeps moving to the right forever—like Ronald Reagan... the Brian Mulroney machine moves to the right, to the right and then backs up.

Ian Munro, CS 360

The Raj Of Rochester

Part Five

{In our last episode it transpired that the impeccably evil King Karmelos had ensnared Pierce Williams in a magical trap called a kwisager — a prison for the soul. Using this power over our hero, Karmelos has sent him on a quest: to find and capture the Raj of Rochester, whoever that is.}

'Most journeys are circular. Dreams are circles we walk in otherspace. Circles traced out by flowing force. The force makes our circles. The force makes us. The force makes us walk in circles. The world. The world makes us whirl. We whirl, the world whirls against us not with us. Which world? The world does not matter. It matters. It matters only which circle. Witches in a circle. Cover the clover, the cirque, the cloven circle.'

"Father!"

He was lying in a checkered bathroom, wrists slashed, circling his arms about, splashing new blood on the brilliant tile. Blood flowed out the door and down the stair. Somehow, somewhere down below I heard him babbling, trying to say something while he bled. And I ran. I ran and ran up circling stairs, past menacing knights in gold armour, past batlike birds with whirling wings, up and up and still he bled. Then the blood began to fall on my face, in soft thick drops...

"Stop screaming! Wake up!"

I awoke with a start and found myself in a dark, evil-smelling cell, somewhere in Karmelos' fort. Chains held my arms to the low wall, and beside me a small, dark woman glowered, she too chained.

"I... I'm sorry. I was dreaming about my father."

"I am Tiswa. I have no father."

"Why? What are you doing here?"

"I am to guide you. You seek the Raj, do you not?" She twisted to see the light breaking through a small hole in the roof. "It is almost dawn. Soon we must go."

The Raj brought back painful memories, of Pander's death and the terrible power Karmelos had over me. I wanted to ask this woman Tiswa just who or what the Raj was, and why Karmelos wanted him, but there was no time. Just then the cell doors were wrenched open and a couple mutes unchained us and threw us on the ground outside. At our feet was a small pile of equipment—canteens, knives, provisions—that Tiswa began gathering up into a large sack. I sat blinking in the bright sunlight for a moment and realised we were now outside the enclosure and ostensibly free.

Then I took a better look at Tiswa as she packed. She was short—not more than five feet—with dark brown skin and a mop of dark curly hair. She had a quiet kind of beauty that could bear great pain and still maintain a mask of uncaring. She seemed to show no emotion, neither elation nor despair, at any turn of events. As far as I know, she never did.

"We must start soon, to the east."

I gathered some equipment for myself—a small satchel, a good knife, a hunting belt—and we headed into the brightening day.

"Tiswa, how did you get here? How did Karmelos get you?"

"My people have always lived here, since before the time of ice. Karmelos came from the south, saying he was the Great Lord of the Lake. The wise ones believed him and they died. The people fled into the hills. Tribesmen left their wives and mothers left their children. I was left, ten years ago." She paused and scanned the horizon. "I think we will not talk of this, Sir Peersheeval."

"That's not my name. I'm called Pierce where I come from."

She offered no response, and so we trudged on silently toward the sun. By noon we had come to a low cliff that ran from north to south across the land. As we ate, I tried to question Tiswa again.

"Who is the Raj?"

"Many years ago, before the time of my mother's mother's moth-

EVERYTHING QUESTIONNAIRE

The following questionnaire is divided into two sections. Part I relates directly to many important topics currently up in the air around campus. Your response (or lack of response) could result in anything from the phasing out of the regular program in Math to the playing of your favourite radio station more often in the C+D's.

Part II is just a survey of how Mathies feel about certain controversial topics. LEAVE AN ANSWER BLANK IF YOU FIND THE QUESTION OFFENSIVE.

You may hand your answers to the "Questionnaire" Box in MathSoc (MC 3038) or to the mathNEWS black flight recorder box on the 3rd floor.

The results will be printed in the next issue of mathNEWS so please hand in your results ASAP. Deadline is Friday, March 7.

The questionnaire is independent of all campus organisations. Any comments can be handed in with your questionnaire.

Term _____ Program _____ Sex _____ Reg/Coop _____

Part I

1. Would you object to the phasing out of the regular program of study in Math? _____
If yes, would you still object if the regular program was phased out in all but Pure Math, Applied Math and Statistics?
2. Would you object if the MathSoc fee was raised to \$6? _____ to \$7.50? _____
(The MathSoc fee is currently \$5 and was last raised in September 1983. The EngSoc fee is \$8.50.)
3. Would you support a raise in tuition above the current 5% ceiling? (This, of course, would be matched by the government at the current rate of approximately 2 to 1.)
4. Would you support making the computer fee (if there has to be one) per course, instead of a fixed amount per Math student regardless of whether or not you are taking a CS course? _____
5. Which radio station would you prefer MathSoc play in the C+D?

6. Did you object to the publishing of *Enginews*?
7. Do you think UW should refuse to rent space to the Oktoberfest beauty pageant? _____
8. How many times per month do you go to the Bombshelter?
Would you like to see the format of the Bombshelter changed?

If yes, how many times per month would you go if it was changed the way you wanted?

9. Would you rather see a relatively unheard of band at Fed Hall for \$2 or \$3 than have just a DJ?

10. Do you feel there is a need for a smokers' lounge within the Math building? _____

11. Would you buy schnitzel fingers if they were available in Fed Hall? _____

Part II

(FOR INTEREST ONLY--an OPTIONAL survey of controversial topics)

1. What religion are you? _____
2. What religion are your parents?
Mother _____
Father _____
3. Do you support abortion? _____
4. Are you in favour of capital punishment? _____
5. Do you object to Canada's involvement in the testing of the cruise missile?

6. Do you think the United States should immediately stop production and development of all nuclear weapons?

7. Do you think prostitution should be legalised? _____
8. Do you support extra-billing by Ontario doctors? _____
9. Do you support full funding for Catholic separate schools? _____
If yes, would you support full funding for separate schools of other religions?

10. Do you think beer and wine should be available in corner stores?

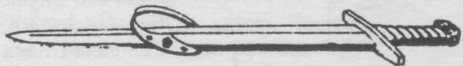
11. Do you think all businesses should be allowed to open on Sunday?

12. What provincial political party do you favour?
What federal political party do you favour? _____
13. Did you vote in your province's last provincial election? _____
14. Did you vote in the Federation of Students election on Feb 11, 12?

Thank you for your participation.

continued from page 6

the tribe witnessed a great battle in the southland. The mountains leaped up from their chairs and the sky shone day and night. The battle, they said, was between the Light and the Dark. The Light does not want battle, but the Dark craves battle. They say the Light was tricked into fighting the battle of Glowing Sky. Karmelos is the Dark, and he is a master of trickery. The Raj is the Light, and he seeks to heal the land. It is to his temple in the east we must go. It does not matter how it rests with our hearts, but we must go."



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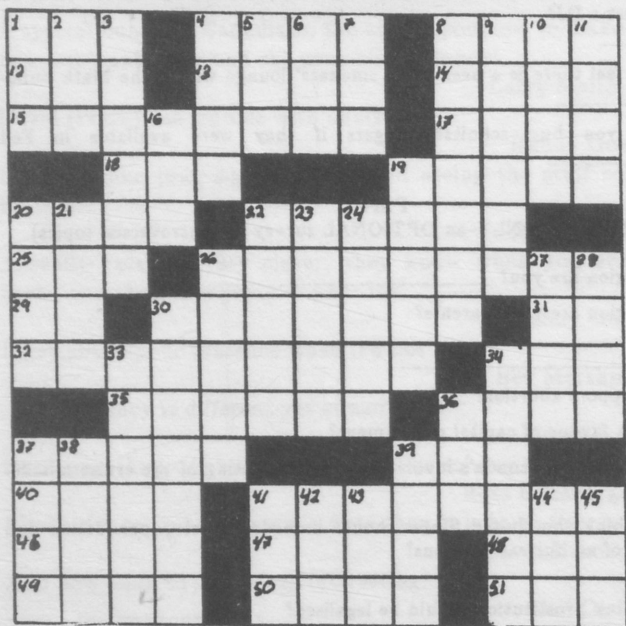
Thanks to everyone who showed up. As I look to my left, then look to my right, I see that many of you are not here...! Hail to the midterms, may they burn forever, and the information night. Special thanks to: dan schnabel without whose consent I would not be doing this; David Leibold for imagening and spellchecking the articles; Cary Timar for helping with advertising; Ken Shirriff for proofreading and cutting; W. Jim Jordan for technical work; Dan Kermede for typing and Gridword; Gregg Simmons for ensuring that I finished this rag and layout; Steve Rapaport and Camille G. for a token appearance and not taking up too much of my time; Tom Ivey for layout; John Omelian for more advertising work and Brett Martin for MathSoc advertisements. Special thanks to anyone else I missed and to all those who submitted articles.

D. Richard Kuzell
Production Manager
and Guest Editor.

Thanks to MathSoc for the extra funding!

GRIDWORD

They Call Me Mister GridWord



Across

1. 12 inch prefix
4. Russian abbreviation
8. Common Greek letter
12. Garden implement
13. Iridescent gem
14. South European evergreen oak
(No one said it was going to be easy!)
15. $\lim_{x \rightarrow 0} \frac{1}{x}$
17. M-A-S-H sergeant
18. Found between the ems and the ohs
19. Place for a carnation
20. Former tennis great
22. Author Horatio and family
25. Overhead railways
26. What GridWords often are not
29. For example
30. Execution by strangulation
with an iron collar
31. Never say -
32. Queen of Spades and King of Hearts (2)

34. And now, a word from France
35. Down and up, No - (2)
36. $y=mx+b$
37. On an ocean voyage (2)
39. Lancelot or Olivier
40. Slices off the top
41. Twins from 'Lord of the Flies'
46. Four of an elite five in the alphabet
47. Butter substitute
48. Spanish gold
49. Goofs
50. Vehicle for removing 39 down
51. Less common Greek letter

Down

1. Pretty common Greek letter
2. A whole bunch of time
3. Puts off the payments
4. Hornswagglers
5. (In) famous concert promoters
6. Feline friend
7. Half a tissue
8. Very strange
9. Pass, as time
10. Prefix for graph or x
11. Beverly Hills Cop
16. Common action suffix
19. All we have remaining when they've
taken away all our rights
20. Where's the -
21. Good Russian woman
22. $n \times n$ or $m \times k$
23. Star of 'M', Peter -
24. Stored valuables
26. Black and white bear in the gym (?)
Very punny!
27. Shakespearean call to action
28. Adore foolishly
30. Birth of a great band
33. TV's friendly spectre
34. Alice's Looking Glass
36. Untruth
37. Fragrant plant
38. Trip around the museum

CO-OP NIGHTMARES

by the dancing pseudo-poet type guy—ijdt!!!

<p>So TELL ME, WHAT ARE YOUR RELIGIOUS BELIEFS?</p> <p>Huh?</p>	<p>pressed</p> <p>shiny-shiny</p> <p>No! I'm not set.</p>	<p>Gurgle-gurgle goo-gah...</p>	<p>TOO LATE Too LATE Too LATE</p>
<p>Tossin' and a Turnin'</p>	<p>My shoes were all shined and my pants and shirt pressed, But HORROR OF HORRORS - my clock was NOT set!!!</p>	<p>I slept like a babe on that infamous night, But when I awoke something didn't feel right.</p>	<p>I jumped from my bed and tore open the shade And when I saw sunlight I knew I was late.</p>
<p>So I'm late, I'm late For a very important date!!</p>	<p>wat hair</p> <p>wat pajamas</p> <p>wat drops of water</p> <p>And when I was finished, with hair dripping wet, I ran back to my room to get myself dressed.</p>	<p>ZZIIPP!!</p> <p>I threw on my shirt and knotted my tie, Pulled on my pants as I zipped up my fly</p>	<p>NEEDLES HALL</p> <p>Then out through the door and into the wall, And when I'd recovered I'd found Needle's Hall.</p>
<p>So I ran to the shower (pajamas and all), Undressed and shampooed and shaved in the stall.</p>	<p>And when I was finished, with hair dripping wet, I ran back to my room to get myself dressed.</p>	<p>I threw on my shirt and knotted my tie, Pulled on my pants as I zipped up my fly</p>	<p>Then out through the door and into the wall, And when I'd recovered I'd found Needle's Hall.</p>

39. Common Waterloo weather report
41. Soak up
42. Complement of nothing
43. Math and Engineering Organisation
44. International Road Hogs
45. Comment from a dove

David Reid, 3A INFO
(guest GridMaker)

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Guest Editor: D Richard Kuzell

Underfunding Awareness Pub
Tuesday, March 11 Fed Hall

- Prizes for best Underfunding Protest Sign
- Specialty drinks available (proceeds to WatFund)
- Prepare for the big protest Wednesday