Warriors Band Steals Show in Brockville, Moncton and Halifax

It was the best of times. It was the worst of times. There was dancing in the streets, and we hadn't even reached Cornwall. An accident in the middle of the 401 temporarily stopped the Warriors Band on their way to DulceCon 86 and the CIAU Final Four Basketball Tournament in Halifax. Solution: dig out the ghetto blaster and have a street dance while waiting for the accident to be cleared. Forty minutes later the Band was safely back in their two vans en route to a rendezvous with their remote accordion player in Montreal.

The next morning in Fredericton, the Band decided it would be a good idea to drop in on the volleyball team in Moncton. So they did. 17 Band members, all suffering from van lag, fast-talked their way past the door at the Université de Moncton with the bass drum, a ghetto blaster and a recording of the Band playing at Grebel last fall. They showed up just in time to cheer the Warriors to a come-from-behind win in Game 3 of their quarter-final match against Manitoba, and watch them fall in Game 4. After twenty minutes of souvenir shopping at the sport shop, the journey to Halifax was resumed.

After arriving in Halifax at the (say this with much emphasis and a loud booming voice) **Sea King** Hotel, taking much-needed showers and demolishing a few pizzas, the Band crashed the CIAU All-Canadian banquet at the Halifax Sheraton. The timing was impeccable, for the Band made its entrance just as Peter Savich was being introduced at the head table. As they entered, they got a standing ovation from the Waterloo basketball team and Mother, UVic's mascot.

On Friday the Band got down to some serious stuff. Western was the foe tonight, and so called for nothing but our best guns and most effective ammunition: another version of *Hail To the Warriors*.

Hail to the Warriors!
Beat Western U.
We're not afraid of horses
So let's make purple glue!

It worked. The game was similar to the one played in London two weeks ago for the OUAA West Division championship. Waterloo had a slim half time lead, Western lead by 7 with 5 minutes to play, and Waterloo clinched a 69-67 victory with a clutch technical foul shot. In the earlier semifinal Victoria rolled over Saskatchewan 78-70, a final score that flattered the Huskies.

The Band went out for pizza to celebrate the hard-earned victory. (Carl Totzke, our athletic director and president of the CIAU, was paying so everyone went). As four members of the team walked in, the Band broke into a vocal rendition of our school song (does anyone outside the Band know the first verse and chorus?), much to the amusement of the Halifax locals. The Band, Carl, and the four players followed this with a rendition of *Happy Birthday* for a previously mentioned Halifax local with little prompting required from the waiter.

Saturday dawned dark and freezing rain. Victoria was waiting to win the title for the seventh straight year; Waterloo was hoping to finally beat them in their third meeting in four years. The Band was hoping to gain some national television exposure as they cheered the Warriors to victory.

Well, the Band got their national television exposure. The bass drummer's legs were the most talked-about thing at Conrad Grebel College Saturday afternoon. And the Band played one of their best games ever.

The basketball team was talked about a lot, too. After keeping even with Victoria for the first thirteen minutes of the game, Vic shifted gears and left Waterloo down 42-28 at half time. In the second half Waterloo made one of the greatest comebacks ever, cutting the Viking lead to 55-54 with 5:07 to play. Peter Savich took an 18-foot baseline shot (his specialty) which would have given the Warriors the lead, but it just missed. The rebound also just missed. Waterloo fouled on the third try, and Victoria took advantage as they widened the lead. Cord Clemens, Vic's 7'1" centre, scored 11 points from the charity stripe as Waterloo tried to gain possession without having Victoria score. Waterloo's fine free-throw shooting deserted them in the last five minutes, and the Warriors fell to the Vikings 70-61.

Oh, well. The Warriors are still the basketball champions of mainland Canada. The Warriors also provided Victoria with their first serious challenge for the W.P. McGee Trophy since the Vikes won it for the first time in 1980. The Band retained its CIAU Band Championship first won in 1981 when the Warriors Band decided to hold a Band Championship. The Band also left with another designation—the Official Band of the Nova Scotia Flying Wheels wheelchair basketball team. This honour was bestowed when the Band bought $40 worth of their 50-50 draw tickets, and challenged the Saskatchewan fans and the TSN running crew to do the same.

Thanks go from the Band to the basketball Warriors, who made the trip possible; the Waterloo fans, who made the trip financially feasible; to all the Band members, who made the trip a success, and the particular Band members who helped to keep tempers down; and to everyone else who supported and encouraged us along the way. See you there next year!

dwarf

mathNEWS Subscriptions

As the term draws to a close, **mathNEWS** will be accepting orders for subscriptions once again. You, too, can join dozens of other math students and have **mathNEWS** delivered to you on your work term (or elsewhere) thanks to our Worldwide Subscription Service (and the mercy of Canada Post). Just drop into MathSoc (MC 3038) before the end of classes, fill in a subscription form and give away $3.50 ($4 for a subscription to the U.S.). That will cover postage costs for mailing this summer's batch of **mathNEWS** issues.

mathNEWS makes great reading during those work terms in Toronto, Ottawa, Pinawa, Palo Alto, or even Finland. This summer, we expect to have GridWord back, along with many other surprises. There might even be fewer than eight editors on campus, even. **mathNEWS** subscriptions are also a great gift suggestion, and are even a good way to find out what's going on in Math after graduation.

LookAhead

Math Events
22 Mar   Math Grad Ball
Co-Ops Only
Good luck, wherever you go!
Fed Flix $1 Feds, $3 aliens
AL116 at 8 pm (extra shows at 10:30 pm on Fri, Sat)
21-23 Mar Rocky Horror Picture Show
Cinema Gratis *9:30 in the CC—it's free!*
(with selected short feature)
26 Mar Slapshot (Just Another Job)
2 Apr   Reefer Madness (The Censor)
DCS Courses Free!
Contact DCS (MC 2045) for more information
24-26 Mar Int. C Shell
UW Arts Centre
Call 885 4280 for more info and tickets
21-22 Mar Richard III
21 Mar   Colorado, Where the West Comes
(Kiwanis Travel & Adventure Series)
22 Mar   UW Band Concert
1-3 Apr   Ain't Misbehavin'
4 Apr   Revenge of the Creature
5 Apr   The Four Seasons
Other Events
22 Mar   Theatresports, 8 pm, HH 180, $1
22 Mar   WATSFIC RuneQuest Tournament
2 Apr   WATSFIC Idea Night (C+D Lounge)
3 Apr   WATSFIC Games Day (MC 3003)
mathNEWS
(We've gone weekly!)
24 Mar Deadline for articles
24 Mar Next production night™ (MC3038, 7 pm)
2 Apr   Next **mathNEWS** hits the streets

Former Editorial

In his Editorial in the last issue, dan claims that if he had been at the production night for issue 5, he would have chosen not to print Slash's article. Had one of us been editing, the article would have been printed (perhaps with an extra disclaimer, for safety). We have two main reasons for this.

It is more important for the editorial staff to present opinions that they disagree with than those they agree with. This is necessary to guard against bias in the paper. The influence that a paper can have is often more than you would expect. It is not necessary to fear that the opinion will be associated with the paper, as it is already clearly stated below the ISSN number that "any opinions expressed herein are those of the authors and not necessarily those of MathSoc or **mathNEWS**."

There are legitimate reasons for not printing an article that the editors do not agree with. These include legal limitations to free speech (such as racism or counselling murder), importance of the topic, or some other paper publishing the article. **mathNEWS** cannot choose not to print an article because the author is not in the editor's clique, the article is poorly written (**mathNEWS** typists should fix that), or even because the author is not a Mathie.

In a case like this, where the editors disagree with the opinion, and it is expected that the readers will also disagree, it is the readers, not the editor, who must defend the 'correct' opinion.

On a less serious note, **mathNEWS** desperately needs controversial articles, whether serious or humorous. If we do not publish articles that stimulate outside response, we will continue to print more articles written by the same dried-up contributors and their close friends. This encourages **mathNEWS** to become more introverted and cliqueish. Slash's article was guaranteed to generate response. (We published two entire pages in the next issue, and received more still.)

Others may disagree with our reasons, but we hope they will agree that our argument is valid. Our point is that the production editor for issue 5 was justified in printing Slash's article.

Cary Timar, former editor
W. Jim Jordan, former editor
Thomas A. Ivey, former editor
John Omielan, senior staff
Camille Goudeseune, senior staff
Paul D. Obeda, guest editor

Co-op tips

The compleat mobile yuppie guide

By now, most of you who are in co-op will know where you are going. If you're just beginning your first co-op work term, you'll want to make sure you take care of a little business first.

The time to look for a place to live on your work term (if you will not be working in a city in which you have relatives) is **now**. Don't wait until you're bogged down with exam studying to find a place as May will soon be here. Check various ads on bulletin boards, find some other co-ops who will be working nearby this summer, and by all means check out the off-campus housing office (yes, they have lists for out-of-town accomodation) at the Village (just find the smokestack and go upstairs). You should only use newspaper classified ads if necessary (ie. your job starts tomorrow and you don't have a place yet), although these can be of some use in your housing search.

To get around the city where you'll be working, you'll need a map. Get a good street map from some place like the campus book store and you'll also be set to find housing. You might also want to write for a route maps of city transit services. They can usually be found in the blue pages under municipal transportation. Some common transit company names include: Toronto Transit Commission,

OC Transpo (Ottawa), London Transit, etc. You might also want a copy of the Ontario Inter-City Transportation Guide, which lists air, bus and train connections along with public transit numbers; there may still be copies of this at the Turnkey Desk in the Campus Centre.

If you want to look up a few numbers and addresses, out-of-town phone books are available in the Arts Library, and the Career Centre at Needles Hall (beside the receptionist's desk).

If you have to get your own telephone installed, try to arrange that early enough since Ma Bell sometimes takes a few days for most installations; you may not wish to be without phone service for too long. If you will be sharing a place with many people, you might want to consider adding a *call waiting* option, especially if you expect the phone to be quite busy; ask the phone company for more details. Finally, remember that Bell charges a small fortune on top of everything else for initial phone installation (this can be a royal pain if apartments or houses are changing hands from one co-op student to another every four months).

Next issue: more co-op tips! If you have any of your own, please send them to **mathNEWS**.

Woody Tobias, Sr

FeedBack

Dear **mathNEWS**:

I've been meaning to write a letter similar to this for a number of terms now, but I kept shoving it aside, until now. Something happened this week that stirred me up again and emphasizes my point exactly. I was waiting in line to book table seatings for the Math Grad Ball on Thursday morning like many other '86. During this time, I counted at least 3 people budding into line. This wasn't exactly what bugged me, but it combined with their conversation did.

The subject of their conversation was basically what they though justified their actions of budding into line. Their feelings was that they HAD to get tables together with the people already in line. I'd like to know why. Were they saying that they wouldn't want to associate with the rest of their co-math grads. In fact, I think the answer to this is yes. I have noticed over the past several terms, and a number of people have told me, that the 4th year math students have formed little elite cliques whose barriers are tough to breakdown. This is especially noticeable now that the two streams are back together. Sure, there are a few who have jumped these barriers, but for the majority this is not the case.

Just a note, maybe if these students weren't so concerned with themselves, their circle of friends and their status, we'd be able to better unite as a class, after all we are a class.

A Disgruntled '86 Grad

Dear Editor:

We would like to bring to your attention that mathematical truth is relative. Typeset proofs in mathematical journals are generally correct, whereas single-spaced handwritten midterm solutions lack validity by their very nature. At least, this is the case for the current batch of MATH 240A midterms. If the proof was too much trouble for the instructor to follow, it was given a zero. In taking up the solutions, he commented that the sort of solutions we gave would never be accepted by a mathematical journal. How often do mathematical journals assign midterms to their readers?

As an additional challenge, this midterm contained three not-so-obvious errors in the questions themselves. Well, one of them wasn't really an error–it just wasn't what the instructor meant. Of course, it was a take-home midterm, and the lecturer could not be found for the correct (his) interpretation of the questions.

The instructor complained that our solutions were aesthetically unpleasant. But we have found it wise in previous courses to imitate the teacher's style of writing. As he had never before marked any of our work (we had no assignments), we had no idea of the problems this would cause. Here are a few examples of the instructor's style:

For all real sequences such that these conditions hold and these other conditions hold. (*End of sentence!*)

To prove $a{\Rightarrow}e$: instead of structuring the proof like $a{\Rightarrow}b{\Rightarrow}c{\Rightarrow}d{\Rightarrow}e$, he will write:

To prove c, it suffices that b is true. Also, $d{\Rightarrow}e$. d is true, provided that c is also. Hence, $a{\Rightarrow}e$, provided that b follows from a, which is obvious.

Over the space of three weeks, x and x_0 were interchangeable. Also, every occurrence of $S=\emptyset$ must be interpreted as $S{\neq}\emptyset$.

People who live in glass houses....

As if this were not enough, he told us before the midterm that complete answers to 3 of the 6 questions would suffice for an A grade. Only now has it become apparent that the best 4 out of 6 were marked (unless he didn't want to mark a particular (and easy) question, because "the rest of the paper is representative of your work"), and that he views an A as seventy-five percent, and a B as fifty. Needless to say, the average was almost a B. We know of nobody taking this course who did not get over 80% in first year calculus.

Can you say "grave miscarriage of justice"?

n⁄
Center of Gravity

Dear Readers:

I was really quite surprised by the volume of responses to my most recent column; I had thought that relatively few of you even bothered with *Shoebox*, so I am delighted to find that the opposite is true.

I really wish, however, that you people could read between the lines better than you seem to be able to. If I had just come out and said "Government is allowed to exercise too much power, and the general public never question it," you would have dismissed it as old news and not bothered to read it. Instead, I chose a very controversial issue and took an unusual stance. What I articulated is not my personal opinion, but I have heard all the arguments I listed voiced by someone at one time or another.

There are two sides to every story, and often the public are subjugated to the extent that they are afraid to offer contrary opinions. I feel this is wrong, and that's what I was trying to get across. In choosing D&D [drinking and driving] as the vehicle for this message, I erred. The response from you people was blurred by emotion in regard to the issue at hand, and consequently you missed the point. If I have unduly offended you, I'm sorry. Please don't hold it against me.

Slash Sinatra

Dear Editor;

Please help me, I'm a physics student and I think I'm turning into a MATHIE!!! Just the other day my Physics prof. put an equation on the board .... and I wrote the derivative in my notes. It's horrible! Everywhere I look I see an integral sign. Life is getting rough, I can even feel the metamorphosis occuring ... I even read **mathNEWS** regularly, what shall I do??

PDP
{Pretty Deranged Physicist}
P.S. I even enjoy doing polar graphs, is this normal??

Mathematical Puzzles

Solution to last week's puzzle:

Suppose S4 is true (i.e. Brown is the person who made the 4 true statements). Then we have the following:

  i) B4 is not a contradiction

  ii) Since B1 is true then S2 and J2 must be false

  iii) Since B2 is true then J4 is false.

  iv) Since B3 is true then J1 and J3 must be true (since we have shown that J2 and J4 are false).

But if J3 is true then S4 is false which contradicts the original hypothesis.

Therefore, S4 must be false. Since S4 is false, then neither Smith nor Brown made 4 true statements. Therefore, Jones made the 4 true statements.

We then have the following:

  i) Since J3 is true then all of Smith's statements are false.

  ii) Since J2 is true then B1 is false.

  iii) Since J4 is true then B2 is false.

  And B3 and B4 are clearly false.

  Therefore, all of Brown's statements are false.

This week's puzzle

At a recent political convention there were 100 politicians in attendance. Each politician was either crooked or honest. Given the following two facts, can it be determined how many politicians were honest and how many were crooked?

  i) At least one of the politicians was honest. ii) Given any two of the politicians, at least one of the two was crooked.

The Wizard of Id

The Raj Of Rochester

Part Seven

{*In our last episode we left Pierce Williams flinging petals on the bank of a primordial Niagara River, after his erstwhile guide Tiswa had fallen to her death in the raging current. Tsk tsk.*}

Now, once again, I was absolutely alone. As I followed faint trails through the wilderness I heard nothing but the sound of animals, the wind, and my own breath. All along I thought of Tiswa; her death had been as senseless, as useless as Pander's. Both had tried to help me, and through helping me lost their lives. Too many people had made sacrifices–but for what? Until I knew, I'd have to go on alone, relying only on myself for answers.

The next day I reached what once was a broad main highway. It headed east promisingly, so I decided to follow it as far as I could. The rhythm of the yellow lines helped me to think, to put things together. Proposition: that the people and artifacts around are the remains of a once-great civilization that fell not long ago. Ergo, from Tiswa's story of the Dark and the Light, King Karmelos was one of those who brought about the fall; the Raj of Rochester was trying to stop the fall and turn it around. Ergo, if I followed my quest and captured the Raj, I'd be doing mankind no favour.

By the third day on the road water became scarce. The stagnant pools in the ponds and canals nearby stank of the high heat of summer. My ears soon strained to hear the sound of running water. I hoarded drops in my canteen like breaths on my dying day, and I began to scan the sky for those annoying vultures that always come at times like these.

The cool of the evening had begun to spread across the land when I heard a strange sound. It was a blast, a jubilant bellow that rolled over the bald hills. It rang out many times as I followed it over a steep slope and down the glade beyond.

A swift-flowing stream ran through the glade, and near in it two elderly elephants washed themselves. The larger one trumpeted again, throwing his trunk high in the air. While I stood and gawked at them they seemed friendly enough, or at least sufficiently indifferent, so I darted down to drink. As I lapped like a dog the two beasts turned and squinted at me: a scrawny bit of simian debris. I grinned back and lay down on the bank, falling into a deep sleep.

+ + +

The third dream came almost immediately. I lay on a high promontory over the sea. On the cliff stood a single column, hundreds of feet high, topped by an enormous metal hand held open to the air. As the wind whipped around me I stared at the monument. At the base was one word: STEVE.

Then I heard a soft neighing, and it came out from behind the column. Again, it was a unicorn, the same one I'd seen before. But this time it cantered up to me and bowed its head at my feet. Hey, it's my dream, I said, so I threw caution into the wind and leapt up onto its back. Immediately the unicorn sprang into the air; I held onto its mane as if my life depended on it. Faster than I thought four legs could manage it galloped along the coast and then angled toward the inland hills.

It was just dawn, and the sun began to rise, glinting off the creature's horn. I suddenly became aware of the fact that I was wide awake! Somehow I'd changed levels without noticing and the unicorn and I were bounding over the desolate landscape of western New York. It was just like Christmas; I began to enjoy myself.

I had once ridden horseback, and I could steer my steed slightly to each side. Nevertheless it was determined to carry me to the east. As we rode into the widening light I saw a purple dome on the horizon. The dome shape then resolved itself into three domed temples fronted by a wide green avenue. As the unicorn slowed to a trot, I discerned a green-robed figure standing on the broad sward. The beast slowed as we approached the figure. Finally it stopped and

pawed the ground, indicating I should alight. The robed figure smiled at me.

"Ah, Pierce Williams. I am the Raj."

Thomas ivey
(to be continued)

The Project Approach To Applied Mathematics

The University of Waterloo has recently been visited by Dr Robert Borrelli, Chairman of Mathematics at Harvey Mudd College, Claremont California. Dr Borrelli was invited to Waterloo by the Applied Math Club, with the help of the Applied Math Department, to give two informal seminars discussing the Mathematics Clinic at Harvey Mudd College.

Dr Borrelli, an entertaining speaker, came to promote the Mathematics Clinic concept as well as to develop closer relations between UW and HMC.

The Mathematics Clinic is a project that Dr Borrelli developed at HMC in 1973. In this clinic, undergraduate students of applied mathematics, with the aid of a faculty advisor, tackle problems received by the college from the industrial sector.

Three problems are accepted each semester. Usually one will relate to numerical analysis, a second to discrete methods, with the third being a problem in mathematics of continuums. About two-thirds of the upper year undergraduate applied math students get involved with these projects. Dr Borrelli assigns a group of four or five students and a faculty advisor to each problem.

Projects account for only one of a student's five credits per semester. They account for one-third of a professor's teaching credits per semester.

The role of the faculty advisor is primarily to maintain momentum in the pursuit of the problem's solution. This role diminishes towards the end of the semester as students, under pressure to meet completion deadlines, spend a disproportionately large amount of time on their projects.

The education received by applied math students at Harvey Mudd College differs from that received by applied math students here. Students at HMC learn to do applied mathematics whereas students here are taught the techniques of applied mathematics. At HMC they gain more experience with team-work. Also, as well as taking courses in chemistry, physics and engineering, HMC applied math students are *required* to select about one-third of their credits from the humanities–resulting in generally more well-rounded students.

There seems, however, to be fewer opportunities to explore mathematics outside of its application. The beauty of pure math is less available to the students at HMC.

One of the results of Dr Borrelli's visit has been the creation of a Mathematics Clinic Committee to explore the development of a clinic here at UW. The committee is made up of representatives from both the faculty and the students.

The committee will have to consider issues like the effect of the co-op system on such a clinic, as well as the effect of the size of UW's Applied Math Department.

At this time, when underfunding requires that universities maintain dangerously close ties with the industrial sector, a Mathematics Clinic would be a much needed alternative to the co-op education system, allowing students of applied math more opportunities to work outside the field of computer science.

dan schnabel

When we last left our heroes, they had been anaesthetized by the Penguin and were being taken to the Physics Lab. Along the way, they were dragged past some lecture rooms where a professor was heard to say, "You might want to learn this for the exam." Upon hearing this phrase, Duck instinctively returned to consciousness (as he had under similar circumstances in many Math 134B lectures). Realising his predicament, Duck grabbed the anti-anaesthetic Watspray can from his utility belt and revived Watman. Then, with a

BIFF!

BONK!

BLAM!

the caped crusaders kicked their feet out and knocked the Penguin and his men into a nearby Marine Biology lab where they fell into a large aquarium and were promply eaten by a very large walrus (aka Jabba the Hut with tusks).

"Holy herring guts, Watman, that Penguin sure got his just desserts."

"And so did the walrus, Duck. Whaddya say we head back for a glass of milk?"

Watman and Duck returned to the Watmobile and drove off towards stately Wright manor. They had been driving for only a minute or so when a blue Ford Granada weaved out of the opposite channel and into the path of the Watmobile. Duck barely had time to say, "Holy drunk drivers, Watman!" three times in rapid recursion before the two vehicles entered the same vehicle-space.

"Gnar, I've got you now, Watman!" snarled Slash Sinatra as he emerged from the driver's side of the Granada. Slash's henchpeople, the *Groovin' Jackals* followed him out of the car and set about tying up the dazed duo.

"What will become of us now, Watman?"

"I honestly don't know, Duck. But the Watcomputer rates Slash as the most evil villain of them all!"

"Gnar, gnar, gnar," sneered Slash, "You've had it now, you dynamic sluggos! I'm going to feed you to the sharks...the loan sharks!"

"You know, Sinatra, it's criminals like you who give drunk drivers a bad name."

"Gnar, we'll see who laughs last, Watman. Soon you'll be seeing

THE ADVENTURES OF WATMAN

the world from the inside of a bowling trophy, gnar, gnar! You and your little Duck too, gnar!"

And so with Slash and his henchman henching, gnarring evilly, our heroes were bundled into the Slashmobile to be driven to Slash's secret hideaway, an abandoned combination deep-sea aquarium and awards factory, where (unless some miracle happened) they would be encased in a blood-flavoured bowling trophy and thrown to those nasty fish from Canada Trust.

Will Watman survive this horrible fate? Will Duck swear off Captain Highliner Battered Haddock for life? Will Active Towing find the Watmobile on Feeblefester Crescent and impound it? Find out next week–same Slash-time, same Slash-channel!
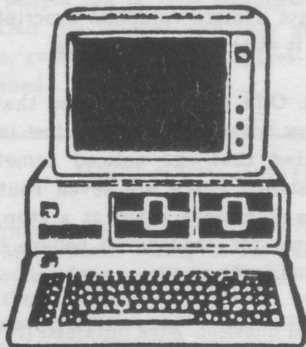Ba-na-na-na na-na-na-na Ba-na-na-na na-na-na-na ...
WATMAN!

The Chuckler

Second Film Night–27 March

MC 2065–7pm

The Computer Graphics Lab in conjunction with the Computer Science Club is presenting a couple of evenings of animated films. The programs will contain a number of animated films covering a range of different techniques. People in Computer Graphics can learn a great deal from those who produce moving images in with other media.

The following films have been booked for the second animation night:

Title	Director	Technique
Crac	Back	Cel
E	Pojar, Desbiens, Forget	Cutouts
Tender Tale of Cinderella Penguin	Perlman	Cel
Beginnings	Worny	Pastels
Chameleon	Anastasiu	Cel
Notes on a Triangle	Jodoin	Cutouts
The Street	Leaf	Watercolour and ink
Lady Fishbourne's Complete Guide to Better Table Manners	Perlman	Cel
The Sweater	Cohen	Cel
Pinscreen	McLaren	Pinscreen
Mindscape	Drouin	Pinscreen

Yet More Prof Quotes

Well, we're still getting hordes of quotes from profs. Before we present this week's batch, it should be kept in mind that some quotes might be somewhat out of context. We also apologise for any mispellings of prof names; typos and other problems do happen from time to time. [Typist: Sorry I couldn't type fast enough to get them all in. (The misspelling in the previous sentence was the editor's, not mine.)]

This is high school algebra—which doesn't mean I can't make a terrible mistake.
<div align="right">Chris Springer, ActSci 221</div>

A real number is as good a complex number as you'll ever find.
<div align="right">J Froese, Math 332b</div>

You may think I'm out of my mind writing down all these significant digits and you may be right...
<div align="right">Keith Sharpe, ActSci 222</div>

You have to pay a price to buy this mirror.
<div align="right">C Ng, Math 234a</div>

This is either going to make crystal clear sense to you or it doesn't in which case it doesn't matter.
<div align="right">J L^2 Morris, CS 478</div>

While calculating a basis...
$$\int_0^1 (x^2 - x + \tfrac{1}{6})^2$$
Too many terms...*(pause)*...forget it! Call it { lambda sub C }.
<div align="right">C Ng, Math 234a</div>

Why am I speaking 360 again?
<div align="right">Gord Cormack, CS 444</div>

A vacuum tube is **filled** with vacuum.
<div align="right">Sci 205</div>

Just a minute — let me pause here, I don't like what I'm saying.
<div align="right">Wayne Hawthorn, Biol 356</div>

You don't know how close to death I am.
<div align="right">R A Snyder, Sci 238</div>
<div align="right">(while wiping off chalk boards)</div>

10 in most schools of mathematics is less than $2\infty + 7$.
<div align="right">Gord Cormack, CS 444</div>

Adding little bits of zero just doesn't get you anywhere.
<div align="right">Winston Cherry, Stat 230</div>

I'm sorry. I went to sleep there for a minute and wrote total garbage.
<div align="right">U S R Murty, C&O 350</div>

The whole area of data communications has the flavour of *The Emperor has no Clothes*.
<div align="right">Romas Aleliunas, CS 435</div>

This is the only unknown you don't know.
<div align="right">Wayne Hawthorn, Biol 356</div>

The reason why I'm late this morning is because my Mom made me eat from each of the four food groups.
<div align="right">K Chang, CS 319</div>

I don't want to see any more quotes in **mathNEWS**.
<div align="right">Bev Marshman, AM 260</div>

I've had trouble with my R's since kindergarten.
<div align="right">Dave Ralston, EL E 332</div>

I've never seen Barnard's Star, and I'm not ashamed to admit it.
<div align="right">R A Snyder, Sci 238</div>

Since the methods of statistics are not likely to change dramatically in the near future...
<div align="right">Chris Fader, Econ 102</div>

It's a good thing you ask all these questions. I'll be able to revise the notes next year.
<div align="right">Johnny Wong, CS 456</div>

That's the easy part — that doesn't say anything yet.
<div align="right">Ken Davidson, Math 130b</div>

He was a well-known plant ecologist.. obviously, he studied birds.
<div align="right">Wayne Hawthorn, Biol 356</div>

No, that's too silly to quote; just wait for something better, OK?
<div align="right">Romas Aleliunas, CS 435</div>

Since we're near the end of the proof, it's OK if I mess this up.
<div align="right">Angus Kerr-Lawson, Math 134b</div>

$\frac{1}{k!}$ leaves $\frac{1}{k^2}$ behind in a trail of smoke after two or three seconds.
<div align="right">John Baker, Math 130b</div>

We haven't mentioned Aristotle for a while! I think we should mention him every week.
<div align="right">Staal, PMath 430a</div>

I should now catch up verbally with what I have just been saying.
<div align="right">Chris Springer, ActSci 221</div>

When in doubt, give yourself an ε.
<div align="right">J Froese, Math 332b</div>

You ran *this* and didn't get a warning? You guys are on drugs!
<div align="right">Kelly Booth, CS 140</div>

They shut off the warnings? Oh. You guys missed out on a really great error here.
<div align="right">Kelly Booth, CS 140</div>

"Strong typing" does not mean pounding the keyboard.
<div align="right">Kelly Booth, CS 140</div>

This is zero, this is zero, and this is zero. What are we doing this for, anyway?
<div align="right">D Siegel, AM 365</div>

I won't ask. I won't ask. It's best to be ignorant.
<div align="right">Erich Fraga, CS 337</div>

You came here for an argument.
<div align="right">Ian Munro, CS 360</div>

Math Column

The solution to last week's problem:

The losing positions are $\{a_n, b_n\}$, $n >= 0$ where

(i) $a_0 = 0$, $b_0 = 0$

(ii) a_n is the least positive integer which is not equal to $a_1, b_1, \ldots, a_{n-1}$, or b_{n-1}

(iii) $b_n = a_n + n$

The first few values are shown in the table below.

n	1	2	3	4	5	6	7	8	9	10
a_n	1	3	4	6	8	9	11	12	14	16
b_n	2	5	7	10	13	15	18	20	23	26

Any position that is not a losing position is a winning position (obviously). Note that from any winning position, one can get to a losing position in one move, and from any losing position one will always go to a winning position the next move.

The strategy for Mr. Odd is to start from a winning position. With his move, he puts Mrs. Odd into a losing position. After Mrs. Odd's move, Mr. Odd is back in a winning position. This is continued until Mr. Odd takes the last tile, winning the game.

Anyone that wants a more complete description of the solution can pick up a copy of it at the MathSoc office.

After losing, Mrs. Odd was so frustrated that she decided to go shopping (Mr. Odd now wished that he had lost instead). As she was leaving, she commented that she noticed something very unusual about the transit system. There are seven routes; each route has three stops; all routes cross each other at a stop; any two stops are connected by one route. Mr. Odd didn't believe that this is possible. Can you verify Vera's claim?

The above solution and question were obtained from:

Yaglom and Yaglom, Challenging Mathematical Problems With Elementary Solutions: Volume 2, Holden-Day, San Francisco, 1967

<div align="right">J. D'Oe</div>

Yuppies: The University

I hear UW students complaining about the label they unjustly feel was applied to them by the Toronto Star, and I chuckle to myself. Of course UW is yuppie! The very institution is built upon the precepts of yuppie-ism two decades before the phenomenon arose.

UW is founded around co-op study, the system of making education and career highly intertwined. You must achieve at all costs in your studies if you hope to get good jobs in the future. Hence, movement between companies to enhance one's career is a well known and often practised activity. And very often, good career development helps out one's studies.

Waterloo is also overrun by a spirit of trendiness. As computers became trendy, Waterloo pushed that aspect of the University. Some years back, when social protest was trendy, UW students led the pack. When the new-conservatism became trendy, what campus swung to the right?

But then so much of the University is geared to career development with the Co-op program, how can can you expect anything else? At times, you can get the distinct feeling in some courses that they are offered upon the request of some particular employer. Unlike other universities where studies are of a more conceptual nature, Waterloo is aimed at forcing extended work to encourage achievement.

The hidden motto of UW is "Reach, Strive, Attain". Maintain an appearance of exceptional excellence in all fields whether it is still accurate or not. If you go to UW, you are automatically better than those at other universities. You are the ones to be going places in this world. Maintain that reputation that the University worked to build over the years.

But what if you wanted to study a particular field of study, because you are interested in it? You doubt that you will ever put it to use in the Real World, so achievement here is not so important. And, for the sake of argument, let's say it is not an Arts course. The University is not geared for this is many areas, and likely never will be. A friend of mine in Architecture, whom I actually saw from time to time, was in one course required for him called Iconography, which is the examination of key symbolic relationships in life and society as expressed in literature. Of course, nothing of this sort exists for someone after an interest level course, even in the English Department at Arts.

Therein is the problem, that the terms and confines (and demands) of non-arts programs have removed the room for interest courses in the form of electives, as the drive to achieve, to advance in huge strides, overtakes the desire for an education that satisfies interests and curiosities in the throes of major studies.

A friend of mine who studied at Western for a year before coming to UW was astonished at the simple difference of the gearing of courses and pace of study. To have a reasonable social life, you need on occasion to choose a course to fail to provide the time in your schedule. Given the choice between achieving and being human, can you wonder how people can become self-centred compulsive achievers to survive here? Can you wonder why they may choose to flunk out? UW by its nature, evolved to create yuppies. It wasn't planned that way, it just happened.

Scooter!

ISSN 0705—0410

First Three Signs of Yuppiedom

This announcement is provided as a public service to students of all disciplines. If you exhibit one or all of the following symptoms, you are in danger of becoming a Yuppie. See your analyst, banker, lawyer, accountant, squash partner and BMW salesman immediately!

1. Having a larger credit limit than your parents.
2. Spending the larger credit limit.
3. Paying off the larger debt with one payment.

CASEY
Canadian Association of Students for the Elimination of Yuppies

A RuneQuest III Tournament

Teams of four players adventure through a RuneQuest scenario to search for the "Sceptre of the North" and attempt to win prizes! Don't know how to play this Role Playing game? We'll teach you! Pre-register at the WATSFIC office. Don't have a team? We'll find you one!

• **When?** Saturday March 22, First session, 8 am. Last Registration, 1 pm.
• **Where?** Engineering Lecture Hall, room 101, UW campus.
• **Cost?** $3.00 with discounts to club members, UW students, or complete team entries.
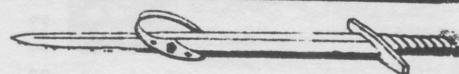• **Beginner?** An introductory session will be held Saturday at 9 am in EL101.

A Hangover

The time warp from morning to noon
My head feels like a balloon
I shouldn't complain
I caused all this pain
But why did it hit me so soon?

grmcfarlane

"You never take a cup of coffee with you on the way to the Twilight Zone– you have one on the way back."

Bonzai

mathNEWS Questionnaire

We'd like to know what you think of this term's issues of **math-NEWS**; hence, we're presenting a questionnaire. You may recall that we had an "everything" questionnaire a few weeks ago, but it appears that **mathNEWS** isn't part of everything. Anyway, the staff will go over your responses carefully, and we'll use these responses to help determine what should go in future issues (and what should stay out). We'd like you to have your say on what your **mathNEWS** should be like.

The rating scales go from ' -- ' (Yecchh!) to ' - ' (bad) to ' 0 ' (neutral) to ' + ' and ' ++ ' (good and great respectively). If you don't have a rating for an item, you should circle ' ?? '. Please circle the multiple choice responses. There is also room for additional comments; feel free to attach extra paper if you have lots of comments (and feel free to make comments!).

- Are you in   Math   Otherwise   Year _____

- How often do you think **mathNEWS** should appear?
    Weekly   Bi-Weekly   Other _____

- How did you find the following features in this term's **mathNEWS** on the scale previously mentioned (circle a rating, or circle '??' if you haven't read it). Feel free to make comments about each article (or any other article) on the back of this questionnaire.

Cover	--	-	0	+	++	??
CSC Flash	--	-	0	+	++	??
Dirk Halfspeed	--	-	0	+	++	??
FeedBack	--	-	0	+	++	??
GridWord	--	-	0	+	++	??
In the SAC	--	-	0	+	++	??
LookAhead	--	-	0	+	++	??
Math Column	--	-	0	+	++	??
Mathematical Puzzles	--	-	0	+	++	??
Prezz Sezz	--	-	0	+	++	??
Raj of Rochester	--	-	0	+	++	??
Sampson (It's a Dog's World)	--	-	0	+	++	??
Slash's Shoebox	--	-	0	+	++	??
Surfin' Einsteins	--	-	0	+	++	??
UltraClassified	--	-	0	+	++	??
Watman	--	-	0	+	++	??
Overall Rating	--	-	0	+	++	??

- Following are category ratings. Indicate whether you want to see more articles in a certain category (+ or ++), less articles (- or --), or the same amount (0).

News items	--	-	0	+	++	??
Politics (university)	--	-	0	+	++	??
Politics (non-university)	--	-	0	+	++	??
Opinions	--	-	0	+	++	??
Real Mathematics	--	-	0	+	++	??
Creative Writing/Fiction	--	-	0	+	++	??
Humour	--	-	0	+	++	??
Campus Events	--	-	0	+	++	??
Sports	--	-	0	+	++	??

- Do you mind off-campus advertising in **mathNEWS**?

- What should the limit be on the amount of advertising in **mathNEWS**, if any? (either by percentage, or number of pages of ads)

- What types of ads would you object to? (large ads, ads for certain products, etc.)

- Are there any features that we should add or increase in **mathNEWS**?

- What features or topics should we drop (or decrease)?

- Do you have any other comments about this term's **mathNEWS**?

Thank you for completing the **mathNEWS** Questionnaire.

A Little Night Magic

The classroom clock is winding down
The light's out for the night
The eraser's made it's last trip 'round
The chalk's all snuggled tight
The floor awaits its needed bath
The chairs are on the desk
The blackboard's dusty aftermath
Will soon be put to rest

All quiet is the lecture hall
To sleep, perchance to dream
And when dawn's light will gently fall
The room will wake up clean

The little elves have work to do
A race against the night
To scrub the sleeping child we know
And make him shine so bright

****

All hail the weary janitor
His miracle is done
A little prince appears before
The new day has begun

So now the lights wake up the room
The clock is back on time
The eraser and the chalk will soon
Fill up the board with rhymes

And all because of little elves
Whose presence oft' ignored
So if you spot one, wish him well
And pass him a kind word

grmcfarlane

Yuppie Banking

Yuppies have their own unique style of doing things that ordinary people think are mundane. Banking is a perfect example of this. Ordinary people think banking is a chore and not much fun at all, but they grudgingly go to their local branch, mumble "Good morning" to the teller, complain about their chequing account being overdrawn and not being able to figure out why, and pay their hydro bill. Yuppies think banking is mundane as well, but they have their own way of handling the drudgery.

Yuppies almost never bank at a small bank or credit union unless they provide favourable interest rates. They always do their banking at an establishment which offers a personal line of credit, like the Bank of Montreal, Canada Trust or the Continental Bank of Canada. If another bank is willing to offer a larger personal line of credit, the true Yuppie will immediately take up the offer, and if it is at all possible, still hold on to the smaller one.

A Yuppie will almost never talk to a teller. The only time a Yuppie talks to a teller is in a branch of a bank other than his or her own and wants to negotiate a cheque or make a withdrawal larger than the banking machine's daily limit. If a Yuppie talks to anyone in the home branch, it is to the loan officer (just to help out his or her parents in getting that trip to Hawaii), the manager or an executive. Of course, any of these people are only of assistance for extraordinary banking needs. Day-to-day banking is done through the network of banking machines. (The best of technology, with the coldness of mechanical contact.)

With banking comes credit. A Yuppie will, of course, carry credit cards for making purchases which require more than the banking machine's daily withdrawal limit, or for making purchases which require less than the daily mechanical withdrawal limit, but there is no banking machine within easy jogging distance.

The Yuppie's first choice for a credit card is American Express (Platinum, Gold and Green, in that order). If an establishment refuses to take Amex, then Visa is second-best (Premier and Classic, in that order). No true Yuppie bothers with MasterCard, because using a no-fee credit card is a sign of being stingy.

The attractiveness of the credit card is also a factor in determining which card to get. A Yuppie will always use a Royal Bank Visa card instead of the Commerce Visa card because it looks nicer. Again, any bank's Visa will be chosen over any other bank's Master-Card because a Visa card has a nicer hologram.

Regardless of what credit cards a Yuppie has, they will all have one thing in common. The face of every Yuppie's credit card is emblazoned with a sticker from a credit card protection agency such as Credit Card Sentinel. These agencies, when called by the subscriber, have the responsibility of notifying the issuers of the credit cards if they have been lost or stolen. The Yuppie will allow these agencies to have this responsibility so there will be one less thing to worry about and only one phone number to remember. The Yuppie will also arrange to have this service renewed automatically each year, and have the fee billed to one of the credit cards being protected.

These are just a few aspects of the Yuppie approach to banking. You can begin practising them now if you like, or you can wait until you graduate, take up jogging and purchase an old house in Cabbagetown before starting these habits. The choice is yours—after all, when you're a Yuppie, the choice is *always* yours.

dwarf

Economics for Yuppies

Yuppies as a group are concerned with financial matters. They are willing to work hard and give up some other pleasures to gain that happiness which money *can* buy. That this is true for students at the University of Waterloo can hardly be contended. Hence, it is important to be cognisant of some of the basics of economic theory. Most accomplish this by taking Econ, but others have been putting off such radical action—fulfilling a typical yuppie trait by utterly refusing the label of yuppie and forcing us to print the dullest material available.

Because of their usefulness in the process of spending money, economists consider jobs important. Canada has, by the way, been getting more of them. Jobs, that is. Over a half million new ones in the last two years—not bad for 25 odd million citizens. And when that income is spent, somebody else gets it. And spends it. And so on. Eventually, just about everyone gets a piece. So, within reasonable limits of fiscal management, spending money is economically good. And it's certainly 'yuppie'.

It is also helpful for a yuppie to know something of what is happening in the economy. This doesn't necessarily require a daily perusal of the *Wall Street Journal* and the *Globe and Mail*, either. For instance, to know that when the government (or any large corporation) spends large volumes of money to create jobs, the money that is spent by the workers acts to improve the general state of the economy, and that restrictions on spending removes that stimulation. Also, that within reasonable limits the government deficit need not hinder the economy. The argument becomes about what constitutes too large a deficit. Certainly there's no reason to pay off the deficit—just make the economy grow over it.

These facts should just about make everybody reading this a millionaire almost overnight. But just to be sure, it is suggested to study the details a bit. Correcting one's ignorance with respect to economics is easily as important to one's own financial success as personal fiscal responsibility.

Sam the Man

Philosophy of Love, Hate, Doubt and Desire

If you love someone
Set them free.
If you hate someone
Let them be.
If you doubt someone
Wait and see.
If you want someone
Come get me.

ijdt

GRIDWORD
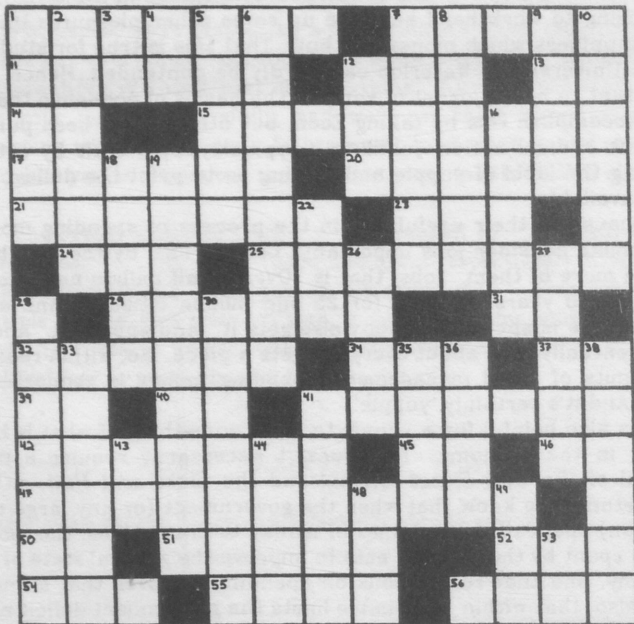
A Grid Too Far

The Ten GridComments

The puzzle by grid guestword-writer David Reid printed in **mathNEWS** No. 5 prompted a large variegated response. Asymptotically correct solutions were submitted by Ben Balboa, Deb Blake, Jeff Clark, The East 4 Pink Flamingos, The Eeeman, The FAB n Triumphant, Adam Hergert, Len Popp, Annemarie Schik (with Karl Sewlochan), Paul Schneider, and Karen Wills. But the (randomly chosen) best entry came from Ken Sulston. Ken, you can come on down to the MathSoc or the **mathNEWS** offices to claim your (as yet undetermined) prize.

This week's conundrum is once again by yours truly; entries should be submitted by noon on **Monday, March 24th**. That's right folks, there's not much time! Sub in your handmissions to the **Bloch Bax** on the 3rd floor, MC.

Grizzled E. Fraggleman
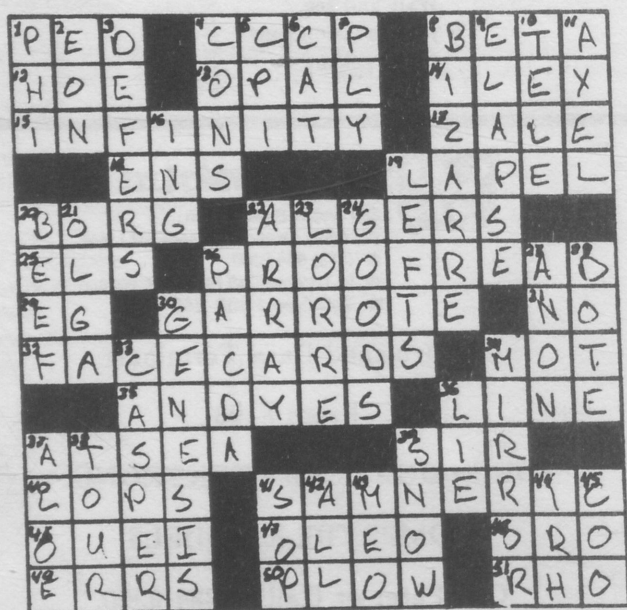
Gridword In, Gridword Out

Across

1 bewitching little girl
7 as far as the wall hanging goes
11 Rest, O Io
12 the ear of being
13 Tillich's *The Courage To ..*
14 London Transit
15 a monkey on his back
17 *The Streets Of ...* (Texas)
20 belongs to Tibetan city
21 the weighty mountain-climber's favourite pastime
23 Lo, observe the palindrome
24 balance the white robe
25 metal-shod warship
29 so less to cut
31 Koch's triumph cut down
32 "Mend ... lest it mar thy fortune" (2 wds.)
34 untruthful alkaloid
37 Ancient Office
39 Hogtown compacted
40 Registered Mail
41 Aristotle's lyrical book
42 Loire town by Tours
45 weight 220, number 86
46 ½ of ((((
47 pertaining to Charlemagne
50 mercurial hydrargyrum
51 island home to falcon
52 inspired wrath
54 conger or moray
55 equine brown with grey
56 "Deutschland ... alles"

Down

1 *For whom the bell ...*
2 musical go-ahead
3 schizoid prefix
4 the silly cow hears 11
5 eighteenth Hebrew letter
6 pleasure-seeker
7 ruling magistrate
8 spread the soft mineral again
9 "What's that long, feathery thing?" (2 wds.)
10 heard, felt, seen, etc.
12 to take sick
16 lover to Tristan
18 gathering for pep or cars
19 needed in a tight place (2 wds.)
22 test for grad school in US
26 Norwegian capital
27 hempish weed
28 he presents an elegant case
30 like unto
33 respectful tribute
35 Himalayan monster
36 Sicily's ornate volcano
38 stable-hand
41 five-way prefix
43 "__459" (Hee-Haw phone number)
44 "and a missle in every ..."
48 *The Journey Of Natty ...*
49 a pen-tip from a bin
53 about, pertaining to

Quoth the Gooch

Bricks and Bouquets

(Every once in a while, I take it upon myself to toss bricks and bouquets in the direction of deserving recipients)

A BOUQUET to...(albeit grudgingly)...dapper dan schnabel. Although the editor of this paper obviously hates me, I am nonetheless willing to admit that he is a smart man. His ruthless censoring me has left me in a no-win position (or so he thought); whenever I write anything anywhere near my capabilities, people will give him credit for it. Give dapper dan full marks, he is one of the few people smart enough to know to fight me at my own game. He has shown me that my friends and I aren't the only wily people of our generation. Congrats on doing something few people have been able to do: give the Gooch a good fight. Next time I see him in a bar, I'll probably buy him a drink (if he doesn't punch me in the nose first).

A BRICK to...the U of T students. Everybody remembers how vigorously they protested the apartheid regime in South Africa. While their protests impressed the media and maybe chevron people, they didn't impress me. Why not? I could see the hypocrisy of the whole charade. While these jokers were quick to protest racism while TV cameras were focused on them, weeks later some of these same people were back to condemning fellow Canadians as "chinks" and "pakis" etc. Hypocrisy sickens me to no end.

A BOUQUET to...those people who rose to the call of Slash Sinatra and condemned drunk driving. Whether Slash was joking or serious is a moot point: the fact remains that the readers of **mathNEWS** were intelligent enough to recognise drunk driving as crime, and were unafraid to voice their opinions. Having known a drunkened motorist, I find it (somewhat) comforting to see my own personal convictions articulated by so many. To those who wrote in to this paper I with to offer my sincerest appreciation and hearty congratulations. It takes a lot to be an individual in this world.

Believe me, I know all about it.

The Gooch