

THE ASSIGNMENT' TOSS
"ESCAPING NERDS" RUN


THE "C" CODING MARA'THON


## Prez Sez

The final Prez Sez...

Well the term is over and the the panic of exams is setting in. Hopefully everyone is not too far behind...

I wanted to take this last "Prez Sez" to send out a huge THANX to all of the people that gave up their free time (especially during the Summer) to keep MathSoc active this term. This includes not only the other exec but also all of the directors (whose pictures are located outside of the Right Angle Café if you still don't know who they are), office workers, class reps, and anyone else who help out with anything. Hopefully you'll all find time to help out in the Winter term!

Aside from that there is not too much to report from this end. Best of luck to everyone on their exams and work terms and I'll see everyone in the Winter.

Thanx again to everyone who helped out.
L. Rachel Nickie
lrnickie@undergrad.math President

## lookAHEAD

| mathNEWS |  |
| :--- | :--- |
| July 25 | You attended the last mathNEWS BBQ |
| July 26 | Issue \#6 collapses on stands |
| Miscellaneous |  |
| July 26 | Last day of lectures |
| July 31 | Exams start |
| August 1 | Studying begins |
| August 5 | University Holiday |
| August 9 | AAAAGGGHHHH!!!!!!! |
| August 13 | Exams End |
| August 14 | Life Begins |
| August 31 | Start worrying about next term |
| September 10 | Sailor Mercury's birthday |
|  |  |
|  | VPAS SeZ |
|  |  |

Wow, end of term already. It's amazing how fast time flies... especially during a summer term. Where have I been for the last few issues? Uhh, I could tell you but then I'd have to kill you. What have I been up to lately? Let's see, studying, (Yes, I do study from time to time) pretending to be busy, organizing the end of term party for volunteers, running the Frosh leader retreat weekend... Basically, I've been running around like a chicken with its head cut off.

By the time you read this, the end of term party will be over, unless it was a really good party. It was on Thursday, it ROCKED! (I hope)
This past weekend was the Frosh leader retreat weekend. Letters were written, food was eaten, BEvERages were consumed, and Summerfest was a great time. Basically, it was quite a success.
Finally, it has been a great term. I'd like to thank all of our office workers, directors, class reps and especially Kim and Rachel. It's been a great term guys, and I'm glad I got to work with you.

X-Man

## At SAC, we ACT!

## End of Term Final Thoughts

The end of another term is here and unfortunately, exams are drawing near. With the next work term close at hand, here are some final thoughts to remind you of SAC's activities over these past four months.

With our weekly meetings, discussion topics were abundant and generated a lot of open thoughts and ideas on co-op issues, such as job sign-offs, the value of work reports, and sexual harassment in the workplace.

The future of WatPubs and "Let's Go Co-op" will be brighter. Each program has been reorganized and are now more effective and hopefully more fun.

The SAC/Co-op BBQ was a success, with about 50 students enjoying the company of their advisors in a more relaxed environment (and a free meal for the early birds!).

And finally, an extremely informative tax seminar was organized by SAC and proved helpful to those who attended.

All these activities by SAC were accomplished this term in order to improve the interaction between Co-op and students, as well as to address the needs of co-op students both on and off campus. These kinds of activities will continue next term with Chris Law as the new SAC Chair. The Assistant Chair's position is still open and if you are interested in taking on this position, please send e-mail to sac@undergrad.math with 'I wanna be a Chair' in the subject line. Tell us a little about yourself and why you would be suitable for the job.

In order to maintain SAC's success in bringing together students and administrators, there is a need for you to get involved. Participation in this group is worthwhile, especially if you have concerns about your co-op experience. So, get involved and join a group that works to help coop students. You can keep in touch with SAC activities while you're off campus too, by checking out our homepage (www.undergrad.math.uwaterloo.ca/~sac/) and our newsgroup (uw.coop.sac).

Good luck to all of you on your next work term and in your studies and don't forget to check out those WatPubs!!

Amanda Woo

## mathNEWS/WWW

If you're ever wandering the Web, drop in on mathNEWS at http://www.undergrad.math. uwaterloo.ca/-mathnews/.

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The Final Appearance as Editor: Mala "Crakko" Krishnan

## mastHEAD

## The Final Frontier

This is it! My last mastHEAD and my last mathNEWS, as editor anyway. In exactly three weeks, I'll complete what is hopefully my last university exam. Yay!! And, if I'm lucky and not cursed in any sort of way, I'll pass it and move on to that place we call "The Real World."
What can I say? I've had quite an interesting time at UW. I've had some happy times and some really bad times. I feel like I've been through five years of total hell, and in many respects I did. I don't wish to delve into these respects, but let's just say I did. One of my goals way back in Grade 9 was to get into UW Computer Science. In Grade 12, I still wanted to get into UW, but in, in my own words, "anything but Computer Science." Somehow or the other, I'm here, alone in my own office reflecting on the past five years, knowing that through everything that's gone wrong, I'm a few weeks of completing the requirements for my BMath in Computer Science! Hmmm...
Through it all I've made some really great friendships. There have been people who've helped me so much when nothing's made sense. They've given up their time and energy at 3 am to explain how pointers function, what malloc is (that was a while ago :), and why my programs just don't work! They've cared for me and shared their lives with me. Even when the turmoils of university life took me down, they were there to support me.
It is because of them I shall cherish the happy days at UW.
I've been quite fortunate, as well, to have had an active part in MathSoc. While not the most important person, I've been involved with mathNEWS for 7 terms, 4 of them as an editor or co-editor, a MathSoc volunteer for 8 terms, and a MGC Director (not Chair!) for 1 term. I've met people that I don't think I'd ever meet anywhere else ... and I mean that in a good way.
To all those who were involved in mathNEWS this term, thank you so much for making the single editorship not as much of a torture as it could have been. To those who helped with the BBQ s, thanks for your time and help. I couldn't have made it without you. Each person's contribution was much appreciated. As someone who knew nothing about either BBQs or meat, I've grown to understand a bit more at least about the first one.
These are the people who've helped me this term (along with some absent others) as well as with this issue. The happy, happy people who came to production night (even though they had to come because of a meeting) along with the sport they'd like to see as a demonstration sport at the Sydney, Australia Summer Games in 2000 are: Mike Hammond (CSC Bashing), Warren "The Milkman" Hagey (Egg toss), Stephen Johnston (Fastest draw with the remote control), Christopher Calzonetti (The 0x100 Internet Relay), Greg Taylor(Dramatic Sailor Moon posing), Viêt-Trung Luu (Run around dressed like Sailor Mercury and slowly chant, "I'm cute! I'm cute!"), and Chadwick Severn (The mammal listoff - bonus for alphabetical), Carolyn $\mathrm{M}^{a c}$ Leod (Load racing or top wars), Andrew Archibald (Chess ...wait a minute ...it already is!), Will Chartrand (Standing very still).
Hopefully no fragment this time...
Thanks go to Domino's Pizza for their wonderful pizza and to Marion at Graphic Services and to Brenda and Laurie at the Right Angle Cafe for helping me with the BBQs.
So, with that, I wish you all the best of luck in your finals and
future terms to come. Au revoir, mes amis. Aufwiedersehen, meine Freunden. (I think I've already forgotten my German.) Good luck!

Mala "Crakko" Krishnan (Due to no creative thoughts, I'll join Mike in Synchronized CSC Bashing)

## So Long, and Thanks for All the mathNEWS

Goodbye, Mala

It seems like Mala's been a mathNEWS editor for almost all of my time here at UW. (Probably because she has been) And don't let her size fool you. When something needs to be done, she can take control and make sure that things happen.
Working with Mala has been a lot of fun, and she didn't even take it too badly when I killed her off in one of my articles. About ihe only negative thing I can say is that she's printed some of my stuff that probably should have been cut. (But hey, you print what you've got, right?)

Anyway, Mala, thanks for all your hard work, and I hope that you're able to move on to bigger and better things! (Bigger than mathNEWS? Is that possible?)

Warren "The Milkman" Hagey


# Wrapping it up in the PMC 

Where's the fridge?

The Canadian Undergraduate Mathematics Conference, held at our very own UW, spirited away a few PMC members (along with the fridge) last weekend. Students from universities across the country came to hear talks on a variety of topics. Otherwise, things have been pretty normal around the PMC, with everyone finishing up their last assignments of the term.

In sports action, the PMC soccer team finished off its season with a first round playoff loss. (We just wanted to have plenty of time to study for finals.) Thanks to everyone who came out for our games. And just yesterday, the PMC played some baseball against the profs. Since I'm writing this ahead of time, I don't know how the game will turn out, but if past experience is any indication, the profs will really whip us.

Anyway, that's all from me for this term. Have fun on your work term, and if you're gonna be at school, I'll catch ya in the PMC in September. Good luck on your exams, and have a great holiday!

Warren "The Milkman" Hagey
famous Web guy

## Very Important Proofs

Proof that $C \neq \pm \sqrt{95}$ (by contradiction):

$$
\begin{aligned}
C \in \text { real } & =\text { cereal } \\
& =\text { apple jacks } \\
& =\text { mac } \\
& =\text { bus error } \\
& =\text { Otto } \\
& =\text { The Simpsons } \\
& =\text { family } \\
& =\text { funny } \\
& =\text { The Hitchhiker's Guide to the Galaxy } \\
& =42
\end{aligned}
$$

## A World Premiere for American Arrogance

Well, they've done it again. Fox just showed So I Married An Axe Murderer, and dubbed it as the "World Premiere." Funny how a Canadian channel showed it 3 days earlier.
The same thing happened about 2 terms ago... I saw Fire in the Sky on City TV, and within a week, I was seeing Fox's commercials for their World Premiere of it. It's happened since then with another movie, too, although I don't remember what the movie was. It seems that Fox has the attitude that if an American channel hasn't shown the movie yet, it must be a "World Premiere."

Just think, if the Olympics hadn't been in the States previously, Fox would probably be advertising it as a World Premiere Event!

Neil "Hey, we're part of the world too" Murray

## Graduating in October?

Intent to Graduate forms are due on August $1^{\text {st }}$

## Applied Relativity

## Science we can ALL use

Well, last week I promised everyone a nice little article about quantum mechanics, and more specifically its nature on pools. However, seeing as how this is the last mathNEWS of the term, I thought I would instead discuss the speed of light, and how you can best use it to your advantage when writing your final exams.

The speed of light, as we know is a constant, weighing in at an impressive $2.998 \times 10^{8} \mathrm{~m} / \mathrm{sec}$. Einstein, or at the very least some smart dead physicist, theorized that since the speed of light must be constant, then time must be relative! This seemingly insignificant fact can be utilized in several different ways to help those of you who need those extra few minutes on your exams.

Write slowly: Since time moves more slowly the closer your velocity to the speed of light, if your hand travels faster than everything around you, what your hand perceives as a few minutes of writing could be a half hour to the proctors. So in the space of a three hour exam, you may only have ten minutes of writing time! Therefore, the slower you write, the longer you will have to finish your exam.

Accelerate the clocks in the PAC: This works on the same principle. If the clocks move at close to the speed of light, it will mark time more slowly, thereby allowing you more time to write your exam. This may not always work, however, as the clocks on campus are often not showing the correct time, and will more likely just be ignored.

Write your exam on the event horizon of a black hole: This is assuming, of course that you have a take home exam. The event horizon is the point near a black hole, where light can no longer escape the black hole due to the black hole's gravity. As such, time will actually stand still, allowing you an infinite period in which to write the exam at your leisure. To further this idea, if you find you have already missed your deadline, writing your exam at the centre of a black hole should allow you finish your exam before you started. Note that there are two problems with this:

1. This has never been tested, and
2. Handing in your exam after (or is that before?) you finish might prove to be difficult.

That's pretty much it for the term, as I'm sure every other writer here is reminding you. Good luck on your exams, and somebody give me a job.

Chris "LittleBoy" Calzonetti

Good luck on your finals!

## prof QUOTES

"And so then the coefficients are...<scribbles on board> OK? <looking it over> This is horrible! Whatever you do, don't remember this!"

Wagner, MATH 135
"In 10 minutes I can't do a full proof, so today I'll just give you the idea. It's like the case for integers... well, no, it's not really.... In fact, it's not at all."

Wagner, MATH 135
"Oh, sorry. This is $A$ here isn't it? That's better, now I'm less confused"

Wagner, MATH 135
"You'll notice the assignment this week is $2 / 3$ as much as usual. That's because you only have $2 / 3$ the time. That just means you'll be more comfortable leaving it until the last minutes."

Wagner, MATH 135
"In general then, if you have $a_{i}, a_{i-1}, \ldots$ No... $a_{i}, a_{i+1}$, and.... That's a crappy way to do it, let's just do another example."

Wagner, MATH 135
"You can solve this by inspection. <looks at board for a little bit> Has anyone inspected the heck out of it yet?"

Wagner, MATH 135
"I'm not going to explain to you why I'm doing this... it seemed like a good idea last night..."

## Willard, MATH 136

"If you consume just the right amount of caffeine, you'll see this makes sense."

Willard, MATH 136
"I was going to end early; thanks for reminding me I still have more to do. I'm grateful for that. I don't know if you are."

Willard, MATH 136
"I think you lost your train of thought because I just fell asleep for a while."

$$
\text { Murty, C\&O } 350
$$

"Four and a half minutes of vigorous handwaving. It gets me hot and sweaty and cools me off at the same time."

Buss, CS 340
"This is not a course in numerical anal compulsiveness."
Bennett, STAT 231
"Given the number of people that are jumping up and down, I guess that it's the end of the lecture."

Buss, CS 340
"That's what the text says, but I don't think that's what it intended."
"Either I turned my brain off this morning or someone else did. You can quote me on that."

Buss, CS 340
"Is today National Conversation Day? ...I think it is."
Buss, CS 340
"I want to wait until Prince Charming comes and gives me a kiss."

Salem, CS 342
"From the point of view of your program, it's like Star Trek. It just beams over there."

Salem, CS 342
"Take one and pass it along. If you are going to give me a good evaluation, take five and pass it along."

Astels, MATH 136
"Let me write this out, so no one will accuse me of not having written it."

Salem, CS 342
"There is a famous quote: 'Necessity is the mother of all inventions.' That is wrong. The real quote should be 'Invention is the mother of all necessities.' Invent a new technique, and someone will ask you to use it."

Panjer, ACTSC 431
"This is the method of successive approximations. Eventually, I'll say something correct."

Wagner, C\&O 230
"This looks like a lot of work for a very simple statement. We don't want to do a lot of work for a very simple statement. But this is a very simple statement. So we'll have to change our attitude so this doesn't look like a lot of work."

Wagner, C\&O 230
"We're getting low on chalk here. so class might be ending early."

Astels, MATH 136
"You're not allowed to drink unless you bring enough for me too."

Astels, MATH 136
"Would someone please put in a plea for some good chalk, that doesn't break, instead of giving mathNEWS all the stupid things I say!"

Marshman, MATH 138
-Said in CS (Faculty) lounge, lunchtime last Thursday:
Buhr

## Pheonix Ponders at Wonderland

When I turned 21 last year I found that I was very unhappy with my life. My friend Mel made this simple suggestion: Change it. Here enter the challenges:
(in reality, the list could fill mathNEWS)

1. Getting a ticket (There's a soap opera episode related to this...)
2. Waking up for the $8: 30$ a.m. departure. (All my classes, by some miracle, start no earlier than 10:00 a.m., so this was hard...)
3. Going on the 'big' rides (taking pictures with the Klingons is not the reason one goes to Wonderland you know)
4. Write an article talking about our trip.
5. Make \#4 funny

## The day of Thirteen Mathies

Morning: - Where's Jen? - The people at the back trying to get trucks to blow their horns as they go by, and minivan passengers to wave back, and succeeding! - Reading mathNEWS on the bus. (I think it reads better during C\&O or Stats...). Finally, screams of 'Oh God', 'higher', 'faster', 'harder' fill the air. No, this isn't a pseudo-campground... we've arrived at Canada's Wonderland.

1. Top Gun (Had never ridden a coaster before. I came out of it quite dizzy and felt ill for the next two hours. Not smart!)
2. Antique Carousel (I sat that one out, as I was waiting for the world to straighten out)
3. Swing sets (Some more spinning; I guess I need to go to the Bomber more often. I could not walk straight for 10 minutes. - Allison, girl in the blue t-shirt is warned to sit back in her seat over the PA.)
4. Sol Loco (Big wheel going horizontal? No way hosé. What's this insistence in making one's self dizzy?)
5. Mind Buster (A 2 minute ride, where 20 seconds are spent getting to the top. This wooden coaster is the best! It makes you kneel afterwards and thank the skies that it hasn't come apart just yet.
6. Sky Rider (I had no time to have fear... the line-ups were too short! If you didn't come, you missed a great day.)
7. Jet Scream (Hang Upside Down? No thanks!)
8. Vortex (Dozens of people went home with a very funny idea of UW Mathies that day. We got two rows to do the wave with us while waiting in line. The ride? Violent! ...)
9. The Bat (Ride backwards? No thanks! Marty points out a girl in the crowd to his fellow rider while hurtling down at no less than $100 \mathrm{~km} / \mathrm{h}$, as evidenced by a Bat ride souvenir picture.)
10. Wilde Beast (Again, the wooden 'coasters are the best)
11. Quixote's Kettles (I said no more spinning. - Doing the wave in the kettles; It's all a big joke now...)
12. Dragon Fyre (Upside down, gentle curves? I'm glad they weren't rough!)
After this we watched a batch of frosh ducks and their mother before going to "Due North on the Bruce Trail." (Professional High Board divers showing off. Quite entertaining actually. I wish I could ride a WaterJet all day and get paid for it!)
13. Bumper Cars (Why can't we always drive like that? I hit one kid so hard, his car spun 270 degrees. I'm such a bully!)
14. Ghoster Coaster (Shaggy? A nice break after a draining day. The smaller cars are dangerous for 6'1" riders though! My knees still hurt...)
15. Days of Thunder (Funniest "ride" in the park. Great fun. Try it next time you're at Wonderland, if the line-up isn't too long. It reminded me of Montreal's race track that I could hear from 15 kilometres away.)
16. Thunder Run (Darkness, dragons and laser lights - Oh my!)

Oops, where's the pondering right? Try this: Roller Coasters and Irony have something in common. Irony is that extra upside down loop life throws at you when you thought the ride was over.

Next challenges: Pass C\&O, reunite 30 of my primary school classmates, sleep decent hours, and come back in September.

Have a great summer!

## Now Pla. Patrick "Pheonix" Tye Now Playing

## Phenomenon

John Travolta stars as a small town mechanic who has a supernatural experience which gives him exceptional cognitive abilities. In addition to increased learning ability, he also gains the capability to perform telekinesis. His newfound skills garner the attention of the other locals, scientists, and of course the government. Phenomenon has good humour and drama, but the romantic scenes were lacking. If you haven't seen it already, it's probably not worth it, it being so close to exams.

## Multiplicity

Don't you wish that you had more time? That's Doug Kinney's desire in Multiplicity, and his wish comes true when a scientist clones him, giving him twice as much time to do things. Of course, there are some mixups, and Kinney (Michael Keaton) runs into problems both at work and at home with his wife (Andie MacDowell) and kids. Keaton is spectacular, playing many distinct characters quite convincingly, and the editing of his multiple selves is amazing. This film is worth seeing for the superb acting and the special effects.
$\star \star \star \star$
Warren "The Movie Milkman" Hagey

## vapidFIRE

## Mike "Hammer" Hammond: Canada's Most Trusted Newsblaster

A bolt of lightning that ignited sugar dust may have caused a tremendous explosion that levelled eight concrete storage silos and injured 15 people at a major sugar refinery in Nebraska. The blast scattered plywood and sugar up to two kilometers away. An anonymous Hollywood screenwriter has reportedly been trying to adapt the disaster as a stage musical based loosely on "Mary Poppins", featuring the song "A Spoonful of Sugar (Helped the Factory Blow Up)". Details are still pending.

A 9-year-old Orlando, Florida, boy was charged with aggravated battery and domestic violence after he held a pocket knife to his mother's throat and threatened to kill her and three children. Apparently the boy was upset that he received the same The Hunchback of Notre Dame toy as the other children, and made the threat to try to force his mother to return to Burger King to exchange it for another. Hmmmm...I don't know about you, but to me it sounds like those "Happy" Meals just aren't working!

A controversy raged over the number of people who attended last year's Caribana parade in downtown Toronto, with the event's organizers claiming nearly a million attendees, while a report from Metro Police Staff Sergeant Stan Belza claims that there were actually fewer than 100,000 . His report raises serious concerns about the results of a Decima Research survey, upon which the Caribana organizers' claim is based. "It's absurd to question our results," said a Decima Research spokesperson. "Our credentials are impeccable. Our reputation is such, in fact, that we've recently been trusted by the Québec government with the vote counting for the next referendum!"

And finally, Canada has once again been ranked by the United Nations as the best place in the world to live. This marks the fourth time this decade that Canada has topped the United Nations human development index, which measures income, education, and life expectancy. Rounding out the top five were the United States (2), Japan (3), the Netherlands (4), and Norway (5). Scraping the bottom of the index as the top five worst places to live were: the far side of the moon (175); an apartment between Jesse Helms and Richard Simmons (176); Chalk River, Ontario (177); Hell (178); and the CSC office (179).

Mike "This Hammer Has 22 Minutes" Hammond


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If that doesn't make sense, come by the mathNEWS office to subscribe some time and we'll explain it to you! If you're a bit far off, then send us e-mail to mathnews@undergrad.math. uwaterloo.ca.

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Your friendly mathNEWS editor

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## The Real Camping Story

Well, from the last issue of mathNEWS, I was amazed at the article from the "Pseudo-Expert for a Better Summer" on camping. As someone who began his camping life at the age of 18 months, it is my duty to step in to destroy any misconceptions that may have been created as a result of that article.

It is of great importance to know and understand the five basic types of camping in order to decide where you want to fit in.

## Yuppie Camping

To Real Campers, this is probably the second-most-annoying type of camping. Yuppie Campers are the type to buy $\$ 500$ Gucci hiking boots, the ones you see "leisurely" reading their Wall Street Journal with their cell phone close at hand, and the ones that buy camping equipment for quantity, not quality. To Yuppie Campers, owning camping equipment is a status symbol, although they often don't even enjoy camping.
PROS:

- Status with materialistic Yuppie friends


## CONS:

- Real Campers think you're an idiot
- Bloody waste of money


## Pseudo-Camping

Pseudo-Camping is the most common form of camping, and the closest you can get to the real thing. The biggest flaw, however, is that it includes such things as running water, prechopped wood, a car, and neighbours. Lots of neighbours! That's right, I'm talking about drive-in sites.
PROS:

- Ideal for the beginner camper
- Gives the lazy and physically unfit a chance to camp
- Cooler in back of car = cold beer!
- Park run activities (i.e. slide shows) fun and informative CONS:
- Noisy neighbouring sites
- Night skies aren't as impressive as during Real Camping


## Ultra-Pseudo-Camping

Ultra-Pseudo-Camping has got to be the most annoying type of camping to Real Campers. Ultra-Pseudo-Campers are the ones who go out and blow their money on those RVs with full size fridges, electric ovens/stoves, microwaves, and even TVs. Hell, I even saw one of them wandering a site in high-heel shoes! PROS:

- You feel like you've never left home (some people are pros)


## CONS: See Yuppie Camping

## Wanna-Be Camping

Similar to Pseudo-Camping, but Wanna-Be Campers are the type to prefer something like the over-priced Grand River Conservation Authority to a real Provincial or National Park (which, incidentally, offer beautiful picnic sites). They're the type to wait until temperatures are $20-25^{\circ} \mathrm{C}$. They think of raccoons as really
wild wildlife, not realizing that something like a black bear is actually very timid around humans and more scared of us than we are of them. Hell, just last summer I had to get out of the tent to chase off a bear that was trying to drag my backpack into the woods (no food in it, but it would have been REALLY annoying to have lost that bug spray!).
PROS: I guess it's good for partying or something like that CONS:

- Nature? What's that?
- Attitudes like "You mean I have to sterilize my own water? EEEEEWWWWWWW!"
- Call yourself an "Outdoorsman" after spending the night in a tent in your backyard.


## Real Camping

Imagine packing up your tent, food, clothing, etc., throwing it in a canoe (or on your back), and taking off in the canoe (or along the trail) out into the wilderness. While paddling (or walking), you notice a moose and her calf feeding at the side of the lake (I've got some great pictures!), or an otter floating lazily on its back, basking in the sun. While drifting, you sit and listen to the soft, gentle sounds of nature. A bird singing from the trees, the waves splash against the shore, and somewhere in the distance, you hear the lonely howl of a wandering wolf. No cars, no radios, just nature at its best.

As the sun is setting, you find a suitable spot, pitch your tent, and go about hunting for suitable wood for an evening fire. After a hearty meal, it's time to relax; time to sit back and enjoy your quiet heaven. Looking up on a clear night, the stars appear before you in numbers that you'll never see from within 100 kilometres of the city. From out in the water comes the eerie call and response of rivaling loons. Soon, it's time to turn in and be lulled to sleep by the gentle surrounding sounds. Waking up refreshed the next morning, you take the time to watch the awe-inspiring sunrise through a blanket of mist rising from the lake, before setting out to do it all over again. This, my friends, is REAL Camping.

## PROS:

- How can you beat thousands of new stars?
- Nature, nature, nature!
- A Real Camper can have a safe fire under ANY condition
- Very romantic
- Only $\$ 4.25$ per night


## CONS:

- No beer
- Forgetting to hang your food from a tree out of a bear's reach often equals no food
- It could take a while to get assistance in case of an accident
- No cooler $=$ a diet of non-perishable and freeze-dried meals (not really a problem with the right food)

Camping is meant to provide a relaxing, enjoyable time for all who choose to participate. I hope this guide helps in the quest of experiencing your own kind of camping.

Neil "Joe Camper" Murray

## Book List for Winter 1997

Here is the text books that you will need for classes next Winter. Be sure to check the Used Book Store first before you buy.

## MATH 235 - Linear Algebra 2

"Beginner's Guide to the Abacus" By Chan Wong
MATH 237 - Calculus 3
"MAPLE QuickStart Sheet" By Bev Peeples
CS 241 - Foundations of Sequential Programs
"Commodore: From VIC-20 to Amiga" By Martin E. Cirilius
CS 444 - Compiler Construction
"Coupon Book for Borland Products" By Borland
STAT 230 - Probability
"Lotto 649 Information Booklet" By Susan Johnston
STAT 231 - Statistics
"Woodbine Racetrack Brochure" By the Woodbine Mgmt
STAT 332 - Sampling
"How To Get The Good Stuff at a Grocery Store" By Z.S.

## ACTSC 431 - Risk Theory

"Risk: The Manual to the Board Game" By Milton Bradley
AM 231 - Calculus 4
"Calculus" By Jack Kevorkian
C\&O 331 - Coding Theory
"COMPUTE!'s Best of BASIC" By Denny Atkin
PMATH 334 - Introduction to Rings and Fields
"Football Championship Rings" By Joe Dogstone
PMATH 336 - Introduction to Group Theory
"Overcome Your Stage Fright!" by Dr. Sue Martin
E\&CE 438 - Switching and Digital Circuits
"Your Lightswitch and You" By Jack Handy
GEN E 123 - Electrical Engineering
"Sesame Street's ABCs" By Grover
GER 101 - First Year German
"Bringing Up German Babies" By Novik Shardy

## HLTH 346 - Nutrition

"The Village Grill Cookbook" By the Chefs at the Grill
ME 219 - Mechanics of Deformable Solids
'The Jello Cookbook" By Bill Cosby

## MUSIC 356 - Canadian Music

"Celine Dion CD Liner Notes" By Celine Dion

## REC 361 - Aging and Leisure

"Shuffleboard: That Wacky Sport" By Grace Johnson

SMF 204 - Intro to Sexuality and Sex Education<br>"Basic Instinct: The Novelization" By Joe Esterhaus

## The Oracle Speaks...

In a loud booming voice that sometimes says "Pay no attention to the man behind the curtain!"

The Oracle is asked several questions at once:

1. Why is the CSC couch in the hallway? Did it move there by itself, or did some supernatural power move it there?
2. What's that smell in the CSC office?
3. Do CSC members need or ever desire sleep?

The Oracle answers several questions in a random order that is beyond your powers of comprehension, so don't even bother: First off, note that in mathNEWS's last issue, the topic of CS gnomes was discussed at length. These questions are of the same topic, but expand on it in the area of nesting and territory.

The CSG (Computer Science Gnomes, see last issue's Oracle column at http://www.undergrad.math.uwaterloo.ca/ "mathnews/ $\operatorname{mn7105} /$ oracle html ) vary in roosting places, but the hub of their civilization is in the great Computer Science Cave. This CSC, located on the third floor of the Math and Computer building, contains its own self-contained ecology, complete with predators, prey, and even several undiscovered strains of insects and bacteria. In the CSC, a certain bacteria has developed a symbiotic relationship with several "couches" as you call them.

These "couches" are actually highly advanced predatorial organisms which lie in wait for a hapless CSG. When a CSG sits on a couch, millions of tiny organisms are killed, and the couch feeds on the dying bacteria, producing a noxious oxide $\left(\mathrm{Nx}_{3} \mathrm{O}_{2}\right)$, which sustains it, and the billions of remaining bacteria quickly multiply and replace the altruistic (but dead) ones. Note that this oxide has the added side effect of mixing with the air and creating a gas that makes it impossible to sleep.

Eventually, a "couch" will be so heavily populated with these bacteria that it no longer needs someone to sit on it for it to survive. The bacteria die due to overpopulation, thus feeding the couch. At this point, the "couch" sets out to look for a mate. By the time you read this, the "couch" has already found a mate, most probably in some far off land, or at least hopefully not in the Comfy Lounge, and the cycle will repeat itself.

The Oracle



## Grid Clues

Across

1. Muscle flexed in many infomercials
2. Music container
3. Three music notes
4. Greeting
5. First year in school
6. Answer to a question
7. Initials of multiplication and division solutions
8. Half of what is found on invitation cards
9. Very bad rays
10. The end...

## Down

2. Exist
3. Special effects used in Jurassic Park
4. How a swear word would appear on a license plate
5. Letters that sound like jay, am, and cue.
6. Can't find it
7. If you have the same last name as someone, and introduce them to someone else, you usually say this (Short form)
8. Pronounciation of a question word

| S | O | N | Y | P | L | A | Y | S | T | A | T | I | O | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | P | E |  | R | A | N |  | E | R | S |  | N | D | A |
| C | P | U |  | I | N | D | I | G | O | S |  | I | O | N |
| R | O | T | I | S |  |  | T | A | P | E | S | T | R | Y |
| U | S | E | R | S |  |  |  | S | I | T | H |  |  |  |
| M | E | R | R | Y |  | U | P | A | C |  | A | N | S | I |
| N |  |  | I |  |  | N | E | T |  |  | M | O | T | D |
| N | I | N | T | E | N | D | O | U | L | T | R | A | 6 | 4 |
| A | S | I | A |  |  | E | R | R |  |  | O |  |  |  |
| B | U | L | B |  | I | R | A | N |  | O | C | T | E | T |
|  |  |  | L | A | N | L |  |  |  | M | K | O | N | E |
| D | E | M | E | N | T | I | A |  |  | A | S | O | C | K |
| I | T | O |  | G | E | N | E | S | I | S |  | L | I | K |
| O | U | R |  | I | R | E |  | E | D | U |  | O | N | E |
| N | I | N | T | E | N | D | O | G | A | M | E | B | O | Y |

## gridCOMMENTS

The video game system gridWORD was a toughie. A total of six submissions were received. Inside the grid you could find a Sony Playstation, a GameBoy, an Ultra 64, a Genesis, and a Saturn. Star Trek 6 and ID4 helped out with the numbers that appeared in the grid.

The winner is Greg Morey who submitted a correct solution and also the mystery acronym "The Obviousness of Lemmas Often Bores". So true, so true. Other correct answers were handed in by Stuart Pollock (Too Obviously Overlooked: Look Out Below!) and Rafael Van Daele-Hunt (Toss Old Overweight Losers Over Board).

We also received submissions from Ian "The Word Guy" Facey (The Only One Left Owes Big), Shaolin Tiger \& Wu-Tang Sword (Tremendous Obesity On Lakes Offers Buoyancy), and Grace Fung (Turtle of Ohio Lost Our Battle).

Since this is the last issue for the Summer, there is not a regular gridWORD included. However, there is a small one, which should be pretty easy, so no solution is required to be printed.

Please don't submit any submissions 'cause no one will be around to receive them!

I had a ball making the grids this Summer (with some help from my girlfriend HJW). Have a great work term this Fall!

## mathNEWSquiz \#6

Hello Squiz people! I'm overjoyed to have five whole squiz entries (six if you count my friend who bugged me about the answers all week but then forgot to give it in :) Well, here are the answers... 1-E, 2-C, 3-E, 4-D, 5-B, 6-A, 7-A, 8-B, 9-E, 10-D, $11-\mathrm{A}, 12-\mathrm{C}, 13-\mathrm{B}, 14-\mathrm{B} / \mathrm{C}, 15-\mathrm{E}$.

Well, answers came from Rafael VanDaele-Hunt (2), The Almighty Oracle (15, obviously), Greg Morey(10), John Swan(14-haven't sold enough veggie burgers), and Stuart Pollock(15). The winner of the all wonderful pizza, by semi-random number generation (flip of coin) is... Stuart Pollock! Congrats. You can pick up the pizza voucher in the MathSoc office.

This issue's mathNEWSquiz is a touch different ...

## It's the last mathNEWS, and the Squizzers are in a state of exam panic

1. Why are you reading this squiz?
2. How many angles are there on a triangle on a sphere?
3. How many ways can you tile an $m \times n$ rectangle with dominoes?
A) Who knows? B) Who cares?
C) Carolyn should get out more
D) All of the above
4. Why did the chicken cross the Mobius strip?
5. Do two monograms make a diagram?

6 . How can there be self-help groups?
7. What is a left angle?
8. Knock Knock, Who's there? Descartes who?

Descartes for des bridge games ...
Submit the answers under your prof's door by midnight on Hallowe'en, or wherever else suits your fancy.

Carolyn \& Greg

