# moouth NEWS 

Tuesday, September 4, 2001


## My Big Pink Tie

## To the tune of Madonna's American Pie

A long, long time ago,
I can still remember how
that pink tie used to make me smile.
I knew if they gave me a try,
I could earn my own pink tie.
It would make me happy for a while.
Guarding the pink tie made me shiver
with every hour I delivered.
Bad news the tie was stolen
the leaders' eyes were rollin'!
I can't remember Why-o-why
we all so loved that really big pink tie,
but something touched me deep inside
the day the pink tie died.
Chorus:
And we were singin'.
Why, Why, Where is our big pink tie,
We drove around the campus, but the lake was all dry,
The good old math boys with no women will cry,
Singing where, oh, where, is my big pink tie.
Did you meet our first dean,
and did you know he listened to Queen,
like the handbook tells us so.
Do you believe he wore those ties,
it's not just a bunch of stupid lies,
he taught us how to make a fashion statement.
And I know that one day on a whim
his students shocked him in the gym.
They all wore pink ties for him.
And then the whim was broken 000 ...
I was a lonely teenage Math alumni
with the pink carnations and matching tie,
and I knew that I was out of luck
the day the pink tie died.
Chorus


Team Tango, Frosh 2000: Laura Edwards Aleem Bahnji Adeel Naider Courtney Steinmetz

Katie Law Atul Sharma
lookAHEAD

| mathNEWS |  |
| :---: | :---: |
| September 4 | Frosh Issue joins the chivalry |
| First week | Disorganizational Meeting |
| September 17 | Issue \#1 production night 6:30 pm, MathSoc (MC 3038) |
| September 21 | Issue \#1 splits the day from the night |
| Math Faculty |  |
| September 10 | Lectures begin |
| September 10 | Math Preparedness Test |
| September 21 | Course Add Deadline |
| September 28 | Free Drop Period ends |
| November 9 | WD Deadline |
| December 3 | Lectures End |
| December 6-20 | Fall Term Exams |
| MathSoc |  |
| September 12 | Locker Sign-up |
| Thursdays | Movie Night |
| September 28-29 | EngScunt |
| November 17 | Charity Ball |
| November 28 | Who's Line is it Anyway? |
| MGC |  |
| Wednesdays | Pizza Day |
| MEF |  |
| September 28 | Deadline for MEF Refunds |
| Co-op |  |
| September | Postings Begin |
| Miscellaneous |  |
| September 21 | Equinox |
| October 4 | The Leafs are out of the running for the Stanley Cup |
| October 5-14 | Oktoberfest |
| October 8 | Thanksgiving Day |
| October 27 | Time to turn back the clock |
| October 29 | Go ahead! Sleep in. |
| October 31 | Hallowe'en |
| November 11 | Remembrance Day |
|  | Don't you forget |
| December 25 | Christmas |
| December 26 | Boxing Day |
| December 27 | Wrestling Day |
| December 31 | Prepare for a year of palindromes |

## Tie Guard

What is Tie Guard? Intelligent, courageous, and loyal subjects who have a specific job: to protect the sacred pink tie. Pink Tie Preservationist, Marco Koechli, a UW Math Grad, established the first Tie Guard in 1994 by organizing a 24 hour watch during Frosh Week. Rival faculties and terrorist organizations were no match for the Tie Guard and the Pink Tie miraculously survived. The Tie Guard is now a permanent fixture every Frosh Week and has evolved into a central information point and first aid station for all frosh.

Where is Tie Guard? The tent city just outside the math building by the Pink Tie. They are there all day and night, all week long.

Why would I want to go to Tie Guard? They're also the cen-
tral location for Math Orientation. If you are late for an event a can't find your group, go to the Tie Guard. They should be abl to help you find out where you should be. Tie Guard is Firs Aid Trained and thus can assist in any injuries. They are also good source of information. If you have any questions Tie Guarf is a good place to ask; if they don't know themselves, they wil direct you to where you can find out.

Who is Tie Guard? Three upper year students who have lot of Frosh Week experience. This year they are: Nadia V. Ursacki Teamster and Coordinator (Olympiad and Retreat Week) in 199 and 1999, Orientation Director in 2000 and CS Graduate Michael Brown, Leader in 1998 and Head Leader in 1999 and 2000, in 4th year CS; Josh Bertrand, Leader in 2000, in 3rd yed

## What's a MathSoc?

- It seems like the question on everyone's mind is, "What is this thing called MathSoc?" Reasonable, if not an unusual thing to be wondering about. MathSoc, your Mathematical Society, is a little bit like student council back in high school, but with power and without a staff member constantly watching everything they do. They co-ordinate events that include a Charity Ball, Movie Nites, and Who's Line is it Anyway? They co-ordinate sports teams for mathies, maintain a hefty exam bank, provide photocopiers super cheap, manage most of the posting boards around the building, grant access to the mathNEWS scanner, and sell all sorts of mathie goodies. If you have problems with a professor, talk to MathSoc. If there's something you don't like about the faculty or the university, talk to MathSoc. If you want to get involved in MathSoc, talk to MathSoc. If you want to know more about MathSoc, talk to MathSoc.
Besides the volunteers keeping the MathSoc Office (MC 3038) open, there are four executives who can be found in MC 3039. This term we've got Ben Willson, President, Nick Page, VicePresident: Academic, Dave Nicholson, Vice President: Activities and Services, and Ed Schmidt, Vice-President: Finances. These guys will be the ones to go to with all your questions and ideas. Stop by sometime when they are in, Execs enjoy saying hello to fellow mathies.
And don't forget, MathSoc sells sexy MathSocks.


## Top 10 Best Things about MathSoc

10. The office. The ceiling is especially nice.
11. $5 ¢$ photocopies.
12. Coloured Chalk
13. Control of the CD Player
14. Novelties: From pens to shirts to shot glasses ...
15. Website: www.MathSoc. uwaterloo.ca.
16. Friendly Office Workers.
17. Social events like Pint with a Prof and Cotton Candy Day.
18. The exam banks, online and in the office.
19. Free use of the mathNEWS scanner.
20. Movie Night every Thursday.
-1 . They love math!

## Sports Rules and History

In an attempt to avoid confusion over the rules and how sports are played we (Marshall, Mike "The Ladies' Man," and I) have compiled this document. First some history.
Remember how when we were in grade school and we used to swing really high and jump off and almost kill ourselves. Or when we used to kick our boots off, well one day I (Marshall) was doing that and it went off and hit this girl who was climbing the tower in the back and so I (Marshall) said, "Oh Shit," and grabbed my boot and ran away. That was the second major injury I caused.
Anyways, onto the rules. Rules shall be kept in the rules bin. The rules bin location shall be defined by the pre game meeting coordinator. The coordinator must obtain the position by filling out form \#O1NexYFhzBsAACPqKYo located in the rules bin. Marshall's divine will does not apply here as it is overruled by the 1954 United Nations sports treaty signed in Geneva. The UN treaty is found in the UN rules bin. The location of the bin in described in the treaty.
Marshall's divine will does apply to matters of the game where charges to a decision or infraction in a game occurred but were charged too late. At any such disagreements The Ladies' Man will provide enforcement of rules (as described in the rules bin).
A throw of less than 3 feet is considered inappropriate and will result in Marshall being tackled (in an appropriate manner as described in rule \#4 section \#3 in the rules bin).
Rules articles shall not be nonsensical and since Tushar wins all the games it is ok to ignore him and make up your own rules (as defined by the Treaty of the Mallards in rules bin slot 4).
We hope that this article has provided you with some insight into our decisions and hope that you will follow these guidelines.
based on a real life conversation by Marshall, Mike "The Ladies' Man," and Tushar

## Difference from High School \#1

Due to vandalism, the PA system is no longer available in the Math Building. Thus, announcements will be made using mass e-mails and through postings in the building. O Canada will no longer be sung at the beginning of 8:30 classes (unless you choose to sing it yourself).

## What is this thing called mathNEWS?

mathNEWS is like an old friend. It shows up, pretty regularly, on every other Friday, makes you laugh, cry, and scratch your head trying to solve puzzles, and then says "see you in two weeks!" Best of all, you can take it into class, and let it entertain you there (unlike "dancers"), and your professors won't care. Heck, sometimes they read it while teaching.
Now, mathNEWS doesn't just appear magically, it gets put togethers by a very tight knit group of writers, productionists, and two editors. Why two editors? 'Cause, really, neither of us are good enough alone to do the job, let alone any job, maybe that's why we are unemployed, and just do volunteer positions.
If you are interested in coming out and helping with mathNEWS feel free to stop in on one of our production nights
(we post posters in the stairwells on production nights), check the door to our office (or come in if we are there!) at MC 3041, or email us at mathnews@student.math.uwaterloo.ca. Seeing as I learned pearl, we now get email again ... but that's another story.
We treat all but one of are writers with respect, and we've already singled him out (Sorry Raymond), so anybody that's new will be treated with the utmost respect, get to party with us at our end of term bash, and eat lots of pizza with us, not that sixteen slices makes you feel good two hours later ... but whatever.

Editorial Staff
Bradley T Smith
Peter S Love

## mathNEWS Advice: DON’T PANIC

This is the story of a publication, a publication called mathNEWS. Not only is it a wholly remarkable publication, it is also a highly successful one - more popular than most lectures on Friday mornings, better selling than course notes for STAT 231, and more controversial than Skip's trilogy of research papers 'Where Davis Centre Engineers Went Wrong,' 'Some More of Engineering's Greatest Mistakes,' and 'Who Are These Engineer People Anyway?'
The Imprint defines mathNEWS as 'rough-edged, put together by people unconcerned with layout.'
Curiously enough, an edition of mathNEWS that had the good fortune to fall through a time warp from a thousand years in the future defined Imprint as 'just another campus publication,' with a footnote to the effect that editors would welcome inquiries about any of the vast number of campus publications that started publishing after mathNEWS was established back in 1973. In fact, mathNEWS has been publishing and parodying many times over many years and under many different editorships. It contains contributions from countless numbers of mathies and professors. Your introduction begins like this:
'University,' it says, 'is big. Really big. You just won't believe how vastly hugely mindbogglingly big it is. I mean you may think it was a long way down the hallway to the high school cafeteria, but that's just peanuts to University. Listen ...' and so on.
(After a while the style settles down a bit and it begins to tell you things you really need to know, like the location of the Math Tutorial Centre on the fourth floor, the fact that you can reach the DWE building without ever going outside, and how to find any room on the sixth floor of MC by using the map which can normally only be read by someone with the mental
capacity for calculating probability forcasts based on improl. ability data: something which even most of the statisticians who have offices up there are still pretty hazy about.)
mathNEWS also has a few things to say on the subject of pink ties.
'A pink tie,' it says, 'is about the most massively useful thinga Waterloo mathie can have. Partly because it has great practical value - you can wave it in the air to help get you noticed in a crowd, flick it at people who invade your personal space, use it to hold open doors as is done in MathSoc, tie it over your eyes in the hopes that if you can't see the professor he won't call on you for the answer, tease the squirrels with it, employ it as a gag or rope to restrain someone who may be particularly annoying you, and of course wear it to public functions if it still seems to be clean enough.
'More importantly, a pink tie has immense psychological value. For some reason, if a potential employer discovers thata Waterloo graduate has a pink tie with them, they will automatically assume that $s / h e$ is also in possession of a mechanical pencil, ballpoint pen, calculator, palm pilot, library of textbooks, laptop, web access, caffeine supplement, copy of mathNEWS etc, etc. Furthermore, said individual will then happily hire the mathie, providing them with any of these or a dozen other items that the mathie might accidentally have 'lost.' What the em. ployer will think is that any person who can survive three, four five or more years in the Math Faculty at the University of Wa. terloo, obtain their degree, and yet still know where their pink tie is, is clearly somebody to be reckoned with.'
mathNEWS sells rather better than the Co-op Work Repor Guidelines. In these enlightened days of course, no one believes a word of it.

## Seriously though ... what's this mathNEWS?

Well, mathNEWS is the University of Waterloo Faculty of Mathematics Student Newspaper. (Or publication, or magazine, or newsletter ... whatever the editor feels like calling it.) We publish about every two weeks, usually on Friday, and contain articles written by people just like yourself! Being student funded (some of your MathSoc fee goes here) and a volunteer publication, we are always in search of people who can write. Or draw. Or proofread. Anything, really. We'll even bribe you to come out to production nights every other Monday with free food. You don't need any experience, just interest. Plus you'll get to see your name in print!
The content of mathNEWS itself will vary from term to term depending on who's editting. However, there is usually a mathNEWSquiz, a gridWORD, and profQUOTES. The former two offer prizes for correct solutions. The profQUOTES are a collection of actual quotes as uttered by actual professors during actual lectures. Look for those elsewhere in the issue. In terms of other articles ... well, have an opinion you want to express? A weird proof you thought up? Something that you think is funnier than what we're printing? A solution to one of our puzzles? Then if you're too shy to come out of an actual production night, submit such things to us by emailing mathnews@student.math.uwaterloo.ca or by dropping your submission into the BLACK BOX on the $3^{\text {rd }}$ floor (between the $\mathrm{C}+\mathrm{D}$ and the lounge).

In the past, mathNEWS has on occasion gone nuts and pul out a parody issue like the recent-ish Daglobenpost, the not-so. recent-ish Irrational Toast and Toronto Numb, and the out-of spare-copies Impotent. It doesn't happen often because thos things take a lot of time and effort, but if you're nice to the editors they may give you a complimentary copy. Oh, and yes mathNEWS really has been around since 1973. (Issue 500 wå another issue that took time and effort.) Feel free to drop by ou office (MC 3041) when it's open to look at our mathNEWS Gal. lery/Shelf o' Memorabilia, which includes, among other items a piece of Red Room panelling, an EMS Library Sign dating back to before the books were moved off the fourth floor of MC into the "new" DC building, and a silkscreen from Math Frost Week 1979. You can even just come by to say 'hi' or drop off af article in person.
Oh yes, and we have a web page, http:/1 www. mathnews. uwaterloo.ca/ You can find past issues then and maybe learn more about us. So enough rambling ... thi mathNEWS DISorganizational meeting will be held during the first week of classes in September. That's when we see abou getting our act together for another term. Hope to see you theri too!

Greg Taylo
Past Edito

## Reasons To Take Part In Frosh Week From Someone Who Didn’t

. Here are the things that I missed out on because I didn't take part in my Frosh Week:
A bigger base of friends: The base of friends that I started university with basically consisted of the girl in the room next to me in St. Jerome's residence and the people who sat within a two desk radius of me in Math class. From this, it did expand; however, if I had participated in either St. Jerome's and/or Math's Frosh Week I would have met so many more people, and from different parts of campus. In fact I knew nobody who was in the Math Faculty on main campus and not at St. Jerome's.
Know the Campus Better: The way I found things on campus in the beginning was by chance or by carefully looking at a map, which is not entirely helpful to those who aren't giants looking down on UW from just south of University Ave. Since campus tours and info are a part of Frosh Week, I would have known that the bookstore was in South Campus Hall and where South Campus Hall was, instead of following the trail of people carrying books to find it.
Know Services Better: In first year I didn't know that the used bookstore was there or that the MathSoc Office had old exams or that the Turn Keys even existed. Another useful thing to know was around was Counselling Services. Once again, this is more knowledge that I would have obtained from attending Frosh Week activities.
Understand Why These Strange People Were Wearing Pink Ties: Since I didn't take part in Math Frosh Week I had no idea

## Sunlight Withdrawal Symptoms

For those of you entering CS here, prepare for many countless nights in the labs. It's a love-hate relationship. You need to spend all that time in the labs, in order to complete assignments; however, at the same time, you become pale. Even those not ethnically white, turn a lot lighter after a few years here at Waterloo. You should see the difference between me and my sister.
One of the problems with all this time spent in computer labs here, is that CS students get a severe case of sunlight withdrawal. I'm not talking about a 'drawl,' with Sunlight ${ }^{\mathrm{TM}}$ dishwashing liquid, drooling out their mouths. I'm talking about an absence of the necessary levels of sun!
Scurvy is one danger. There was one fellow not to long ago that got scurvy. We don't know if it was his diet of pure Kraft Dinner, or if it was his lack of sunlight. But a combination of both, will for sure get you scurvy. So eat more than KD (see the squirrel article), and don't forget to eat lunch outside every once in a while.
Seven of the major symptoms associated with Low Levels of Sunlight include:

- Pale Skin
- Sunglasses indoors
- Dressing in all black
- An immediate reaction to yell "I'm melting," whenever outside in the sun, and covering once face in an effort to save ones self
Do not be fooled by those that walk around the building with a nice tan. They are just in the building to get some cheap food from the C\&D or, they are one of the 'passer-bys,' who happen to have a class all the way over on this side of campus.

Pete Love
that the frosh in the black $t$-shirts with the pink ties were even mathies until someone told me. And of course I knew nothing of the history of it or the pride in which we wear them.
Getting a Pink Tie: The only way to get a pink tie is to take part in Frosh Week and thus I never received a pink tie from my Frosh year. I was lucky, though: with the resources that I have now I was able to track down a ' 96 pink tie which is now my most prized tie (the 2000 Frosh Week tie being a close second).

Handy Mathie Handbook: Since reading the handbook that was produced for 1998's Frosh Week, I think almost all you need to know to survive at UW as a mathie is contained within the Mathie Handbook's pages. [And in the Frosh Issue of math NEWS, of course - TaxiEd] Everything from where to go to change your courses, to where the best bars are, to info on safe sex, even to places on campus not to go. Every mathie should make sure to read it cover to cover. It is found in the Math Frosh Kit.
So I highly encourage you to take part in all the activities that you can during this Frosh Week. Doug and Nory and all of the coordinators have been planning for this week for almost a year now and they want you all to have the best time of your life (I know since I've been in their shoes before). So open your mind, heart, and soul. Take it all in and experience it to the fullest.

Nadia V. Ursacki
Tie Guard for Frosh Week 2001 Director of Frosh Week 2000

## The Heaviest Door on Campus

## A Letter from Plant Ops

Following an electrical audit of the campus by Ontario Hydro, it was noted that the tunnel connecting the third floor of MC to DC was consuming an abnormal amount of electricity. As a result, the Dean of Mathematics requested an in-depth investigation by Plant Operations.
A squadron of janitors clad in a green uniform set up a site that would take observations and measurements of tunnel activities and send them back to HQ where a highly trained team of statisticians would process the data and compile a report. Their findings were astounding.

It was noticed that multiple individuals, who had to enter DC from MC, would use the handicap button. Data concerning the people using the button was sent back to the statisticians. Based on the evidence, there did not appear to be any link to age or race. The only possible explanation, given the lack of explanatory variates, was that the door was just too heavy.

The statisticians reported to the Dean of Mathematics that some people were just too weak. Stronger individuals needed the assistance of the button to get past the door's inertia. One statisticians said that the weight of the door was not actually taken and there was a possibility that people were just too lazy to open the door themselves.

He is now recovering in the hospital from multiple beatings.
As a result, the Dean of Mathematics has demanded that Plant Ops bypass the normal five year processing of requests and replace the door with a light-weight material that can be opened by all.
Current reports indicate that administration is now deciding between paper or plastic.

## Knitting

"Isaac Newton made a Bible-based estimate of a few thousand years [for the age of the universe]. Einstein believed in a steadystate ageless Universe. Since then, data collected from the Universe puts the probable answer somewhere in the middle."

- www. superstringtheory.com While most people have heard of "(Super) String Theory," most do not realize one of the most practical applications of it. While it is true that string theory was originally created in an effort to describe the interactions of itty bitty particles, it is actually used nowadays in many different ways.
"Originally, string theory was proposed as an explanation for the observed relationship between mass and spin for certain particles called hadrons, which include the proton and neutron. Things didn't work out, though, and Quantum Chromodynamics eventually proved a better theory for hadrons."
www. superstringtheory.com
The second most popular use for string theory is related to the interaction of particles in four space (you include time, along with $x, y$, and $z$ ). In a collision between particles, the interaction takes place at a single point in four space. However, in string theory, the interaction actually occurs not at a single point, but in a small (like, so small, itty bitty looks gargantuan) finite difference (think Epsilon-Delta ... wait, you don't know what that is: read this again in four months, or ask your frosh leaders and they'll moan and squiggle about). But enough of this limit crap, time to move on to the most affluent use of (Super) String Theory.


Did you know that Marilyn Monroe was a string theorist?

Most people don't realize that their grandmothers are actur. ally very skilled experimental physicists, with all the knitting they do. It has been kept a secret for a very long time. The work done by the GNOMES (Grandma 'Nitters Of Modern Experimental Science) is finally paying off. You can now actually see them sometimes in the Math building, working their way up to the fifth floor and the AM department where all the theoretical cosmological work is done here (Physics claims they do some, but they're physics) at Waterloo.
Your Grandma and her posse explain to the professors and researchers here about their latest discoveries in their knitting sessions, and their relations to Super String Theory. (Along with the basics of crochet and needle point.) Sometimes, you can see the AM profs, hiding in their offices doing knitting circles. Whatever you do, don't disturb them while they knit, or they'll get ridiculously mad at you, and they'll fail you. The AM profs are very influential around campus.

Pete Love


Granny, hard at work for science

## Top 10 ways not to pick up a girl in math

7. Java code. Even if she likes geeks, this is just too over thi top.
8. Flexing your quads. If you don't have any, she'll laughand that's not what you want, is it?
9. "Nice shoes, wanna fuck?" Um, NO.
10. Complaining about how awful the ratio of girls to guys i in this faculty. Chances are, she's already taking advantag. of it.
11. Not showering.
12. Letting her frag you in Quake. She's better than you ant doesn't need the help.
13. Admitting you know how to knit.
14. Sending her msgs each time she logs onto a Unix machine Stalking doesn't work, boys.
15. Offering to help her on an assignment, and then copyint all her answers.
16. Bragging about your Windows uptime.

## Difference from High School \#2

Petra Lor

Due to government cut-backs to higher education (those bastards), Home Economics classes have been cancelled. If you wisht further your education in knitting, take a string theory or topology course here, or go to Conestoga College.
Shop class has been renamed mechanical engineering.

## Warning! Tortoise Crochet is Only Fun Until Someone Loses an Eye

- It saddens me to report that the University of Waterloo's $13^{\text {th }}$ annual Tortoise Crochet Championships, held July 17 ${ }^{\text {th }} 2001$, had to disqualify favourite Laymond Rai for drawing blood. The obscure rule was invoked after Laymond made a careless finish to his $2^{\text {nd }}$ Tortoise. With his triumph in sight, Laymond accidentally struck Fred in the eye with his left needle. Accidents of this nature became virtually extinct after the World Tortoise Crochet Federation created the one-metre rule in 1985.
Laymond had a 2.4 second lead after the first Tortoise and was leading by nearly half a Tortoise when he finished his second. Laymond, realizing his unprecedented lead, had a near fumble on the finish of the second Tortoise. In an attempt to recover his left hand slipped, stabbing directly into Fred's eye. Some disbelieve that it was an accident; WTCF president Ivana Tinkle said that "It had to be intentional: we haven't had such a severe crochetting accident since we instituted the one-metre rule."
Fred, upon being struck with Laymond's left needle, had to withdraw from the final match. Blinded by the gushing blood, Fred was quickly rushed to St. Mary's Hospital. In the emergency room he said, "That bastard! He knew I was the only one who could beat him at the championship. I had him right where I wanted; I always make the final Tortoise about twice as fast as Laymond. He always has difficulty on the final Tortoise's eyes. He must have realized he didn't have enough of a lead to carry him through. Sorry, got to go surgery now. Ta ta."
The organizers of the UWTCC faced the quandary that the two top contenders were unable to finish the competition and hence unranked Theresa Wayne managed to win the championship, shattering Laymond's hope of his $5^{\text {th }}$ championship in 7 years. Theresa, overwhelmed by her unexpected victory, said,

"I didn't really expect to but I guess I should thank my parents for always supporting me; as well, I really need to thank Laymond for making this victory possible."

With such a big upset in the crochetting world we would typically think that the gambling institutions would be making a killing, though one local bookey, Sam Slug, is out a lot of money. Sam lost several thousand dollars to Raymond Lai who bet on long shot Theresa Wayne. Sam was shocked to have any bets on Theresa at 200-1 odds. Raymond Lai has been unavailable at any of our attempts to contact him about this. We suspect that there may have been collusion between Laymond and Raymond, though these two have never been known to interact. Laymond surely knows that if he was caught throwing the UWTCC he would be suspended from any competitive crocheting for at least 5 years.

## A Knotty Article

So, you're a former boy or girl scout and you're wondering how you can benefit from those years of experience here in Waterloo? Even those of you who don't plan to study any of your grandma's theoretical quantum particle physics courses may still be useful.

## Top 5 Ways to Tie Your Tie

1. Four-in-hand
2. Half Windsor
3. Bow tie
4. Figure 8
5. Full Windsor
6. Noose

Experience with groups and games is always useful, but the real dope is when someone is down with da knots. One topic in topology is knot theory, which was actually originated by Sir Baden-Powell. He defined several rules for determining whether a diagram was knotted or the unknot (aka a simple loop of string), which was later expanded using matrix notation by William Barber and Brian Liu, two troop leaders from Illinois.

Now, U Chicago is a hub for virtual knot theory, which considers knots with crossings where the string passes through itself instead of an over-under relation. During a recent lecture at Waterloo, a VK-theorists described how techniques for stronger knots developed by the Scouts can actually be mathematically shown to hold a mass directly proportional to the product of the density of the string, the number of virtual crossings (factorial!), and the square of the mean diameter. His work with virtual knots has also given back to the Scouts. Looking at the square knot as a virtual knot revealed a better recipe for cookies! It's all about the co-operation.

To those who completed their knot-tying badges, you will be releaved to learn about all the applications your experience has in university. However, for those who thought they could just go camping a couple times and be considered a true Scout ... you disgust me.

Bradley Tied Smith

## profQUOTES 101

Don't profs say the darndest things? profQUOTES is the most popular feature of mathNEWS. This is where you will find funny, stupid, or ambiguous things uttered by professors and recorded by students like you. If you think one of your professors has said something quotable, send it in (along with their name and the course name) to mathNEWS either by email or dropping it in the BLACK BOX, and you will probably find it in the next issue! It could be an incentive for you to stay awake in class.

Below are some of the better quotes uttered in these class rooms with in the last year, with a couple even older ones thrown in for good measure. (Plus check out the Math Handbook for more profQUOTES from the days gone by.)
"I don't say 'bullshit' again because then I appear in mathNEWS again."

$$
\text { Wolf, C\&O } 487
$$

"We'll have to use calculus to do this proof but that's okay because calculus is a subset of algebra."

Dickey, MATH 135
"You all should know that algebra is just a subset of calculus."
Lu, MATH 237
"There are the people who change the order of the question in the book, and call it a new edition, and then you must pay another $\$ 120$. In my opinion, it is robbery and these people should be punished with a life-time of brussel sprouts and Maggie Thatcher."

Jackson, MATH 235
Prof: "What is a column space?"
Student: "It's a row space, but it's columns."
Prof:"Yeah, you should be teaching this course."
Crippin, MATH 136
"Does anyone find it hot in here? Do you mind if I take off my pants?"

Irving, MATH 137
"That's serious chalk! If anyone upsets me they will get this in the head."

D'Alessio, MATH 136
"I hate having people take my word for everything - even if I am always right."

Green, MATH 137
"I'm getting it! I'm getting it! Ha, ha. I've proved the wrong thing!"
Davis, MATH 235
(written on board)"We can "graphically" represent a graph with a graph diagram, called a graph."

Mosca, MATH 239
"Just because I know nothing about it, doesn't mean I can't talk about it!"

Young, MATH 135
"The definition of professor is someone who talks in someone else's sleep."

Shallit, CS 462
"I'm practising to become an absent-minded professor."
Beatty CS 436
" $0 \times 0=0$, except on the STAT 230 midterm, where it could be any number of things, according to you guys."

Chen, STAT 230
"If I were at Western in London, Ontario, I would now show you 29 examples. But we're not at Western ... we're smart here."

Willard, PMATH 330
"Let's start on unsatisfiability ... this doesn't have anything to do with your sex life."

Hoffman, PMATH 330
"There aren't many clever people in the world, and most of them are dead."

Hooper, PMATH 340
(waiting for a response from students after asking a hard question)"Any brilliant ideas?"(pause, still no answers.)"There ain't brilliant people any more. They are all dead."

Hooper, PMATH 340
"Now think about what your computer is doing at home ... well, if you are running Windows then it's probably crashed."

Buhr, CS 342
"Threads are like people. If they commit suicide, you can't expect them to clean themselves up."

Burkowski, CS 354
"This is my favourite proof. A family favourite. The kids at home are always asking for this one."

Andre, MATH 138
"In the corner, you guys are high." [He was talking to me and my lab partner. - TaxiEd]

Cherry, STAT ${ }^{231}$
"I can't say 'I am a baseball fish cat,' although some days I feed like a baseball fish cat."

Vasiga, CS 24
"Machines use electricity - this is why you shouldn't prograt in the tub."

Vasiga, CS 24
"To take care of things like Stockwell Day's intelligence, wi need negative numbers."

Vasiga, CS 24
"On the newsgroup, do not post porn. There are other place for that."

Vasiga, CS 24
(Prof is trying to solve a problem, stares at the ceiling to ponder Pete Love: "Yeah, keep staring at the ceiling, maybe it'll tel you the answer ..."
Prof: "Where's my gun?" (Pats himself down) "Where is it? had it yesterday ..."

Vasiga, CS 24

# The Official Guide To Living On Campus (but not in residence) 

A Five-Step Program

You made it through first year, so the school rewarded you by kicking your ass out of residence. Unfortunately you didn't quite make time to meet any landlords last March, CLT threw out your bullshit-dipped application, and you didn't apply to Beck Hall because Beck Hall is a total skam. So now you find yourself on your own: sleeping nights in the Comfy Lounge, eating three meals a day at Scoops, and bathing (irregularly) at the PAC. Well my friend, it's time for The Official Guide to Living On Campus (but not in residence):

1. Building Your Nest: The "beds" in the comfy are good, but not great. As you'll be spending a lot of nights there, you sorry sockboy, you'll need to pad your sleeping area. A popular option is a bed of soft cardboard. You can find some cardboard in the back corner of the C\&D cafe. Chew it up into small moist pieces and line the comfy chairs about 6"-8" thick.

## Don't take anything seriously, and other things they don't tell the frosh

Well, sometimes the title of an article is too long, and so we have to shrink it. For example, this article should be called: "Don't take anything seriously if it is in a polkadot capsule, and other things that the evil illuminati don't tell the young innocent fresh blood that meanders onto campus."
You probably don't believe me, but did you hear about the five high-school students that went missing on Campus Day? How about the 7 that went missing during Student Life 101? I bet you can't wait till FEDS $101 \ldots$ he he he.
Anyway, they only take the meek ones, so you should be safe. Mathies are a resilient folk.
But remember, there are safety percussions, no precautions, to help keep the students safe on campus. If emergency assistance is required, one can call extension 4911 to reach the campus cops (also known by some as the campus cowboys, no relation to the Dallas Cowboys).
Scattered throughout campus are also a bunch of light poles with a blue siren light at the top. There is a push button on them, that activates the light, and alerts the campus cowboys to come and see what's happening in the area. If you feel in danger, or threatened in anyway, use them.
If it is late at night, and you don't want to walk home alone, you can also call walksafe (x 4949), or visit the turnkey (x dump) where they tend to hangout between walks. They coordinate activities with WLU's (Wilfred Laurier High School's) foot patrol. In order to make people comfortable, each walksafe 'team' comprises of both a male and female.
Last, but not least, there is also the safety van. The van leaves the turnkey at certain times, and gives rides to those that live outside walksafes 'range.' The van does give preference to females, but males are allowed to take it.
So, next time you are afraid on campus, call the cavalry (the campus cowboys), and kick some ass.

Pete Love
2. Keeping Clean: Since cleanliness is a priority in the Math Faculty, you'll want to ... oh who am I kidding - keep dirty, we'll remember you that way.
3. Storing Your Shite: Along with your textbooks, alcohol and pajamas, you may need room for a spare pair of underwear (or two!), some golf clubs or a couch. The lockers in MC or the PAC could suffice, but there are many alternatives. If you are interested in storing lingerie for example, try hanging them up in the UW Shop. If you're creative, you can store virtually anything: canoes will sit nicely atop the statues at Hagey Hall, horseshoe magnets fit neatly under the iMacs, and your pet squirrel can make his home in the warm space under the hood of the new ES van.
4. Staying Out of Trouble: This step is easy, but very important. There's a group of rule-maker types who aren't very supportive of your choice to take housing privileges with your UW tuition. Should you face a conflict tell them, "I have to go to my time-machine," and run off. They will assume you are going to your time machine and let you off the hook.

As you can see, living on campus (but not in residence) is fun and easy. Good luck, and stay away from Beck hall!

> Jesse Wilson couchabunga!

## 6 Ways To Learn a Prof's Name

1. Go to your first class. Typically your profs will introduce themselves within the first 5 minutes of class. If your 5 minutes late, that's poor but don't worry: I have 5 other ways for those of you who love hitting the snooze button.
2. Ask a friend. Other people in the class will know the professor's name. Though if you have not made it to a class yet, it may be difficult to know who is in your class. As well, after a month or two you might be too embarrassed to ask.
3. Check out the course calendar. There is a schedule online which has all the classes listed with their number, time, place, prof, room ... This provides a good check, especially if you have your timetable. What if you lost your time table already?

Alright I was bluffing. There are only five ways to find out your prof's name. But good luck in the constant struggle.
It is very important to find out your professor's name, especially in first year. At your exam you may have to circle your professor's name and that may mean that you don't have to do some of the questions. I would strongly recommend knowing your prof's name (I have known many who have ignored this advice), if nothing else, do it because you can.

## Dave Nicholson

P.S. Sorry about not sharing the other two ways, I was getting tired: it's almost 2 pm . [Actually, I can come in handy here, you could always ask your prof what their name is. - Pete Love]

12 Step Program ...<br>for Becoming a Better Frosh

## Run

Not your Forrest Gump, jog around the countryside run, I mean, run like a rabbit being chased by some drunken engineers after a night at the Bomber. You don't understand what you are getting into. Run.
Well, you're still here, so I guess my warning was wasted. Since you are still here, I might as well tell you some ways to at least try to enjoy
 your 6 year stay here.

First, you are not graduating in 5 years if you are in co-op. Sure, it looks like you might be able to, but with so many people giving Brian Fox (aka Latrell, aka The Man) a run for longest stint as an undergrad in math, the average time is up around 9 or 10 terms. So although you plan on getting out of here while in your 20s, be prepared for graduating when you are 33, bald, fat, and have 2 kids, a second wife, and a dog named Rylie.

Secondly, don't even bother telling people you are in math. If you smell funny they'll just assume it; if you don't, they will spend most of their time with you wondering how you don't smell, since you take so many classes with so many smelly people. Really, I don't understand how so many people smell so funny. Yeah, I know fishermen smell like fish, male gigolos smell like fish, and hookers smell like fish. But math doesn't smell like bad BO, so why should so many mathies smell like bad BO? I don't think we'll ever know.
Number three: Accept being censored.


Fourthly, Bradley T Smith and Pete Love are two hot guys! Although you might think they are unattainable, go for them. It'll be a decision that you'll never (ever (ever)) regret.


## Q

Bradley and Pete, aren't these two guys hot!

## A

Well, no, not really... But Brad does have nice breasts...

Five: Since you'll be trying to pick up Brad and Pete, you might as well write for mathNEWS, I mean, you can spend quality time with them, and it's like having a scheduled date every other week with them. You could look like a keener and even push for production nights in between issues: that way you could spend more time with them.

## moouth NEWS

Six: Mathies aren't particularly good at counting, especially after they graduate. So don't actually expect 12 steps, if it says 12 steps in the title.
Seven: Don't even think about being in CS if you find CS 130 or 134 difficult. Run, run while you can (See the warning before step one). If you find SOC 101 or PSYCH 101 difficult, I suggest college ...

Eight: You can never be too top heavy. Well, actually you can, so don't go crazy and forget that if you don't take care of your legs, they'll become little twiggy things, and people will point and laugh at you and go
 "Look, he has chicken legs."
Nine: Work in AHS if at all possible. The gender ratios are a gazillion times better, and the people there tend to be in way better shape. Girls, this ain't a bad idea for you either: the guys there are in better shape than the mathie guys.
Ten: Do not stress out. Sure, university is stressful, but take time to relax. If necessary, take the advice of friends, and carry a little sign with you at all times that says "Relax." If you need to know if you are too stressed, you can always discuss the issue with any of Raymond Lai's friends.

Finally (11), don't forget that typing and typing until the end of time (or the morning) does not make an article better. As i matter of fact, it usually makes it worse. For example, look uf some of the "Frosh Cornered" articles from mathNEWS in the last year (online at www. mathnews. uwaterloo.ca), and you can see that the editors didn't even read some of them, ther were that long.

Now, one last (Look, I did get to 12), but not least, learn to procrastinate, and save the most important things for the end That way you are more motivated to do them, and do a bette job. Like here, I saved the most important step for the end ... at procrastination.

Pete Love

## Difference from High School \#3

Due to a lack of space in the cafeteria, food will be permittel in hallways and classrooms, but be prepared to share your des sert with the professor if requested.

Alternatively, you can eat at home or in your residence. What ever. I'm just filling space here.

## What I Eat?

## - What is edible and can be cooked in 5 minutes or less?

Well as a student, I am very lazy. Lazier than average, I would suspect. I would say $19 \%$ lazier than average but that's an injoke. Food preparation tends to fall very low on my priority list. When I wake up at 7:10 pm and have an exam that starts at 7 pm , time is an issue. So I had better have a meal that I can prepare and eat before my exam. For all you mathies, that gives me precisely -10 minutes. As well, I probably should study before the exam. So I prepare another quick 'meal.'
Peanut Butter Sandwich: Open bread bag, grab 1 or 2 slices of bread out of bag. Grab knife from door. Spin lid off PeaB. Spread PeaB on bread. Eat. Clean up. [Clean up!?!?! — Pete Love]
Total Preparation Time: 7 sec
Hot Dogs: Fill pot with water. Put desired number of hotdogs in water. Boil. [How do you make boiling water though? - Pete Love]
Total Preparation Time: 20 sec $+\mathrm{x}(\mathrm{x}=$ Time To Boil Water (This depends on the quality of your oven which is probably bad in student housing))
Spaghetti: Fill pot with water. Boil. Add spaghetti. Stir occasionally over 11 minutes. Drain water. Add sauce. Stir. [Again with this boiling thing! - TaxiEd]
Total Preparation Time: $13 \mathrm{~min}+\mathrm{x}$ (note this exceeds 5 min but for over those 12 min you only need to stir occasionally)
Bacon \& Eggs: Put bacon in frying pan. Add heat. When bacon begins to get crisp move to a side of the pan and add the eggs to your boiling grease. Flip eggs and/or bacon at intervals. Serve.
Total Preparation Time: 4.5 min (I am bluffing: I have no clue since I have no time pieces in my apartment)
Vector (The cereal/meal supplement (resist urge for bad math joke here)): Get bowl. Add Vector. [Actually, you need two vectors, so you need, Add Vectors - Pete Love] Add milk. (This recipe works for other cereals as well. But really, if you're taking a course on something why not eat it 2 meals a day?)
Total Preparation Time: 24 sec
Dave Nicholson
PS: I did make it to that exam; I may have passed. If only I had studied before the exam started.

## The Legend Of Mallard

## Or how to drive other people insane

Once, not so long ago, there was a frosh team named Mallard. They did not have any complex or creative cheer, but a rather simple one. Whenever Mallard was called they responded with a resounding QUACK!!! They quacked all day, and they quacked all night, they quacked and quacked until their throats cracked. So then they took some halls and quacked and quacked. Eventually the other leaders grew annoyed, but that did not stop our trusty Mallards. They continued and were one as the cheer morphed into other languages (such as French, pig-Latin, Dutch, Monty python, and web version - www.mallard.ca - /QUACK! ). To this day people know what will follow a yell of "Mallard." So if you want to be remembered after frosh week for years to come cheer loud, cheer frequently, cheer hard, and make your leaders lose their voices. But most of all have fun!

## A day in the life of Pete's Kitchen

Welcome to university. If you live on campus, in any one of the villages, I'm sorry, this article is a waste on you. You won't have to cook for another year, and you'll have to eat Village food. So, keep this in your underwear drawer, and read it again later.

For those of you who live off campus, and don't have the meal plan. Let me teach you how to cook quality healthy food. These are all real meals that I've made for myself.

## Breakfast

Take your blender, add
two heaping tablespoons of peanut butter
some Egg or Whey protein powder
two tablespoons of sugar
a litre of milk
a boiled chicken breast.
some parmesan cheese
strawberry jam, and
one quart of half and half cream
Mix, blend, swirl around, and make lots of noise with the mixer. Serve in a pitcher, or two, depends if the pitcher is from the peel pub or some other 'wussy' establishment.

## Brunch

Repeat breakfast, but replace the chicken breasts with egg whites.

## Lunch

One fat steak, about 24-28 oz. Fry at a high heat, and just simmer the outside, nice and juicy on the inside, and the proteins aren't even denatured than! Often have a side of a whole box of Kraft Dinner, but only use butter and homogenized milk. So much more calories.

## Mid Day Snack

Cajun Chicken, peanut butter, mayo and mustard sandwich, on whole-grain bread.

## Supper

A promax bar, some tuna noodle salad, and a 3 egg omelette. Evening Snack
See Mid Day Snack, along with another breakfast shake.

## Dinner

A few chicken breasts boiled, some long grain rice, boiled in chicken soup broth, and some broccoli or peas. If you don't eat all the chicken, you can have it for breakfast the next day.

## Midnight Snack

See Breakfast
Pete Love

| QQQQQ | UU | UU | AAAA |  | cccecc |  | KK | KK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| QQQQQQ | UU | UU | AAA | AAA | CCC | CCC | KK | KK |
| QQQ QQQ | UU | UU | AA | AA | CCC |  | KK | kK |
| $Q Q \quad Q Q$ | UU | UU | AA | AA | CC |  | KKK | KKK |
| QQ QQ QQ | Uu | UU | AAAA | AAA | CC |  | KKK | KK |
| QQQ QQQQ | UUU | UTU | AA | AA | CC |  | KK | KK |
| QQQQQQ | Uưu | Uu | AA | AA | CCC | CCC | KK | KK |
| $Q Q Q Q Q$ | UUT |  | AA | AA | CCC |  | KK | KK |

## Where to Eat

## Without Getting Poisoned

You may be surprised at the amount of choice on where to eat in such a small town like Waterloo. Waterloo may seem big around the school, but life in Waterloo basically starts and ends here, and maybe restarts somewhere around Laurier. It's rather incredible the amount of restaurants that a small town can pack in.

It's important to know beforehand what's good and what's literally dangerous to eat. Consider the following a hands-on guide after what was months and months of eating and sporadic bouts with stomach sickness. It's good to know the alternatives to cafeteria food, the novelty of which should wear off on you in about two weeks. These eateries are ranked from 1 to 10,1 being completely poisonous to 10 being slightly palatable. Prices are based on relative averages from restaurants surrounding the one being reviewed. Prices range from \$ (it won't break your bank), to $\$ \$ \$ \$ \$$ (prepare to apply for a mortgage). [mathNEWS disclaims any responsibility for any illnesses incurred as a result of taking the following advice. - Petra Love]

## University Plaza

- Mongolian Grill (7.5, \$\$\$): The Mongolian Grill serves a good array of dinner and lunch snacks. While prices vary depending on what you eat, the money you have to fork out prevents you from going everyday. Pity, because the food is rather good there, with piping hot entrees that are very appetizing.
- Vietnamese Place (there's only one in the Plaza) (5.0, \$\$): While the Vietnamese place does offer something different from what they serve in res, the quality doesn't compare to similar restaurants in Toronto or the outer fringes of Waterloo. Unless you have a serious craving for raw beef noodles in hot soup, think twice before eating here.
- Pita Factory (7.4, \$\$): If it's health food you're craving for, get a pita stuffed with veggies from The Pita Factory. Pita experts are friendly, and the menu is even friendlier. Carnivore? Don't worry, there are plenty of meat options to satisfy even the meatiest of eaters.
- Williams Coffee Pub (7.3, \$\$): Coffee prices are comparable to other chains, but the quality is slightly off in comparison. Prices are reasonable for the liquids, but quickly get ridiculously expensive once you move onto the solids. One commendable thing about Williams is the atmosphere: It's always packed and a great place to meet new friends and gather with the old.
- Gino's Pizza (8, \$): Although a chain pizzeria, the quality from this joint is just superb. You can either purchase pizza by the slice or by the whole (they also deliver, but picking up pizzas are cheaper), they are delicious. I can't put my finger on it, but there is something inside each pizza that has the edge over Pizza Pizza. Don't forget the dipping sauce, it's bar none.
- East Side Mario's (7.3, \$\$\$): If you've eaten at East Side Mario's, you've eaten at all East Side Mario'ses. Waiters/ waitresses are friendly, and the food is always hot and fresh. Nothing much to say about East Side Mario's other than it's good food in a good distance.
- Front Row McGinnis (7.8, \$\$\$): Good burgers, sports on screen, beer on tap. This isn't just a simple sports hangout, it's a sports hangout with decent food. Prices are decent as well, and the food is again quite good. [Wow! The decent food must be really good here. - Petra Love] Saturdays feature two-for-one burgers, and they do have specials every day. This place is usually packed on Sunday nights for pay-per-view events. If so you're lucky as to be here for the Winter term, Leafs Playoffs are always a scene to be seen at Front Row.


## The Other Side of Phillip Street

- Mel's Diner (8.4, \$\$): Good olde time fare. Well, not quite olde time, but it's themed on the Marlon Brando era (before he got fat). Try to recall the diner seen in Grease and you've hit the mark. Good burgers, good sandwiches, good shakes, and even better breakfasts, Mel's is the gathering place for all-day breakfasts after a full night of partying. Open late on weekends, Mel's is a popular choice for all UW students and staff. You never know, you may even bump into your TA there.
- Louie's Bar and Grill $(7.5, \$ \$ \$)$ : Decent food at a decent price. Jose's serves basically anything and everything, and no, it's not a factory. Recommended fare: their baked pastas are quite good and filling.
- Sunshine Express ( $6.0,1 / 2 \$$ ): Relatively cheap Chinese food although the quality is passable, and cleanliness varies depending on the week you visit. Bottom line: Cheap Chinese Food. Don't expect chicken balls there, because they do sell the real stuff.


## The Legend Of Lunch

## Duck Soup

Once, not so long ago, there was a frosh team named Mallard They did not have any complex or good cheer, but a rathe stupid one. However, teams represented by larger and mort impressive animals came up with a more appropriate cheer.

Whenever Mallard was called, they responded with a resound ing LUNCH!!! They lunched all day, and they lunched all night they lunched until they could lunch no more. But there's at ways room for duck, so they lunched some more.
Eventually the Mallards grew annoyed, but that did not stop our trusty Makos. They continued and were one as the cheet morphed and the web version needed revisions tol (www.mallard.ca - 404 Not Found!). To this day people knor what should follow a yell of "Mallard." So if you want to be remembered after frosh week for years to come, cheer loud cheer frequently, cheer hard and make everyone lose theit voices. But most of all have fun!

| LL | $U U$ | $U U$ | NN | NN | CCCCC | HH | HH |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| LL | $U U$ | $U U$ | NN | NN | CCC CCC | HH | HH |
| LL | $U U$ | UU | NNN | NN | CC | HHHHHH |  |
| LL | $U U$ | UU | NN | NNN | CC | HHHHHH |  |
| LLLLL | $U U U U U U$ | NN | NN | CCC CCC | HH | HH |  |
| LLLLL | $U U U U$ | NN | NN | CCCCC | HH | HH |  |

## Even More "Where to Eat"

## Without Getting Poisoned Even More

- Second Cup (8.6, \$): I'm biased towards Second Cup because I've been addicted to it since High School, but it is marginally better than most of the other chains out there (Starbucks is disqualified because their coffee stinks). They rotate their blends on a daily basis, and they always have 4 blends on tap while they keep a good amount of backup that can be brewed on a moment's notice. Snack foods are also sold and are fresh, but tend to be a little pricey. Atmosphere is a little more mellow than Williams, so this is a good quiet place to study or as a good end to a date. [So when have you been on a date lately? Do tell! - Petra Love]
- Weaver's ( $7.5, \$ \$$ ): A co-operatively owned project between the management and residents of WCRI (Waterloo Co-operative Residence Inc.), Weavers is a membership-owned pub that serves good jalepino poppers, incredibly good wings, and a decent slice of pizza. Specials are available on every night except Fridays and Sundays, and there's domestic micro-brewery beer in stock. They also serve meals outside normal pub fare, as 'fake' Chinese food, pastas, burgers, steaks, chicken, etc. is also available on their extensive menu.


## Outside Walking Distance

- Marbles Restaurant ( $9, \$ \$ \$ \$$ ): If you're out to impress your date, drive towards King Street and end up at 8 William Street East (519-885-4390). The French onion soup is to kill for (it IS that good), and the burgers there are quite well done. They make their own pasta and have special pasta options there on a nightly basis, along with other specials. The night I was there I had the linguine with 3 kinds of mushrooms in a blue cheese sauce, which was magnificent. The bread they provide there is perfect to mop up the extra sauce on the pace. Price is a little up the upscale side, but worth every penny considering the amount and quality of food served there.
- The Huether Hotel and Restaurant $(8, \$ \$)$ : Good food at good prices, and a nice retro decor to match. II hear the only seventies thing there is the CENSORED - Petra Love] Outfitted with pool tables and retro arcade games, the Huether offers food and distractions up the wazoo. The Huether makes their own barley or something of that nature, so they have this special barley soup, and barley pasta, barley everything. A good place to unwind after a term of writing at mathNEWS or after a midterm.

Amadeus

## Difference from High School \#4

Due to schedules, your homeroom professor is not your first professor of the day, but your calculus prof, because every mathie is in a calculus class.
Please see them regarding electing a Class President (or Rep, as they are called now).

## Brown Squirrel, Brown Squirrel

## Shake your bushy tail

Now that you are in university, you are probably (a) broke after paying tuition and (b) have no idea to cook. So let me help you.
There are many animals on campus that one can hunt, and use in the kitchen. One of my favourites is Squirrel. [Note, this should in no way be confused with the programming language SQL and those who use it - TaxiEd] Catching the squirrel is the hardest part, but one method that is quite enjoyable to employ is squirrel fishing (from the infamous Banzai TV show (Wed. 10:30, CityTV)), no hooks are used, but rather peanuts. So if you have a peanut allergy, you may want to catch other animal, such as rabbit, duck or the geese that abound on campus.
Squirrel, like most small game, can be used as a substitute for chicken in most recipes, and adds a slightly different texture. Be careful when catching/fishing for squirrels that one gets the Grey ones. The Red ones are quite gamey in flavour.
Also, whenever handling any small game, make sure to don gloves to avoid possible tularemia infection. (What is tularemia? I don't know, but you don't want it, or so says my 'cook book.') Below is a diagram on how to skin the squirrel. After skinning the squirrel, make sure to remove the head and feet, along with the internal organs, plus two small glands found in the small of the back and under each foreleg, between the ribs and the shoulders.


To Recap:

- No hooks are used in squirrel fishing
- Grey = Good
- $\operatorname{Red}=\mathrm{Bad}$
- Gloves are a necessity
- Remove untasty parts
- I think catching animals on campus is illegal, so don't do it. But road kill, yum!
Special thanks to the "Joy of Cooking" cook book for the diagram, and information on preparing small game.


## The 4 Signs of Overworked Mathies

If you are reading this, I think it is safe to assume that high school math was no match for your wits. You breezed through Algebra without any trouble and Calculus was a cinch. There is nothing that will stop you from getting 90 s in all math courses, right? Of course not. (Some of you will continue getting 90s throughout your university life. If you think you belong to this group, feel free to ignore the rest of this paragraph.) I was once like you, thinking that getting an average in the 80s would be a walk in the park. Believe me, getting an average of $80 \%$ requires some work (and a little luck - my cumulative average is a bit under, but it is over 80 if you don't count my 1B term).
Your workload will very likely be heavier than the workload you experienced in high school. Most of you are probably used to finishing your math homework by the time a class ends. In some cases it still holds true, but it is more likely that you will take hours to do an assignment. Don't worry though. If you manage your time well, you will get everything done on time. However, if you experience any of the following, you probably are overworked (or in Stat 231 - since you haven't passed Calculus 1 , this doesn't apply to you yet).

1. Life that is based on Hong Kong/Bangkok time:

If you work so much that you work until 3 or 4 am , then it is obvious that sleep is not your priority. If you do work this late into the night, your body will compensate by forcing you to take a slumber during the day. Of course, there are some classes that will drive you to sleep no matter how much you slept the previous night (case in point - Math 137 lectures). However, if you experience an urge to take a nap no matter what class you are in, it is likely that you are overworked. (Note: if you fall asleep during a Troy Vasiga/ John Irving lecture, look for help IMMEDIATELY.)
2. The Comfy Lounge has a good smell:

If you think that the Comfy Lounge has a pleasant smell, then you definitely are overworked. Since the smell of Comfy is highly undesirable to upper-year mathies, your sense of smell is obviously distorted. When it is left unused for an extended period, your nose will send out signals to warn you of a brain overload. Similarly, if you see nothing but hot mathie guys/gals in the MC, it is a good time to take some rest.
3. An urge to raise your voice:

If you are overworked, it is very likely that you are stuck on a particular question/idea. You will become frustrated and angry. You will begin to have doubts. At that time, an urge to blame everyone else will occur. You will begin to yell at everyone within your sight, even if you don't know any of them. While yelling can be an effective way to ventilate your frustration, do it with caution.
4. Pulling your hair/Breaking everything that is breakable: If you work into the wee hours of the night, you probably have a question that is "impossible" to solve. It is easy to lose your cool and become frustrated. Often people who experience this become so frustrated that an urge for destruction arises. They will feel that the only way to solving the problem is to pull the their hair (or someone else's) or to pummel some inanimate object. (Interestingly, I think better when I pull my hair. However, don't get into a habit of doing this, as you could be as bald as a cue ball by the time you graduate.)
5. Speaking in Java or C++ Code:

If you spend a lot of time in a computer lab or in front ofa computer, then the amount of time you have for a personal life will be very low. Someone who is overwhelmed by CS assignments can easily lose the ability to have conversations with other human beings. At that time, the only means of communication the person can have is to interact with the computer using Java/C++ code. Eventually the person will begin speaking the code in public. If you begin to speak in languages that only a computer understands, take some time to rest.

## mastHEAD

## Ye Olde Rambling Editors

The mastHEAD is your best window into the minds of the editors, since it is when we usually address you directly to talk about whatever was going on the Tuesday before the issue is published. This, however, is a bad example, because it's the middle of August and I (Bradley) am on vacation while Pete is working at AHS as he has been all term.
So it appears that this is a pretty lengthy issue doesn't i?? Well, it is, but mainly because we have had two Production Nights for it as well as stealing articles from previous issues, including last year's frosh issue. It's true, it's true. So not much else to tell you.
The tradition of the bi-weekly Production Night is that we "work" for a couple hours, then we scoot out for some pizza or to go for dinner somewhere. During dinner, somehow, a ques tion always comes up, and that becomes the mastHEAD Ques tion to which everybody in attendance must provide a witty ish reply. Seeing as our goal was to produce a frosh issue, the question became: What was your rejected Frosh Week theme? And here are the productionists with their Frosh years, teams and themes. Albert O'Connor (2000: Victor, STDs ... "We'r syphilis!"), Nadia V. Ursacki (1996: Cubie's team, Army (d) course)), Gilad Israeli (1999: Mallard, QUACK! (Mallard week)) Yolanda Dorrington (1999: Mako, Sexually suggestive choco late bar names (Go team Big Turk!)), Marshall Drew-Brook (19998 Sailfin, The episode of Family Guy where Peter's suggestion for the parade theme was the episode of Who's the Boss in which Tony sees Angela naked in the shower), Mike Savigny (1999. Mallard, One of those cake parties), Jason Lau (1999: Croc Mythical Monsters - "Who's got worse breath now?"), and Laymond Rai (2000: Long Column Assult Team (aka Delta) Semaine de ClubSuperStress[], teams include Office Stress Parental Stress, Rejected by Girls using Java Code Stress, etc. Well, that was it for the first Production Night. At the second we had two new folks arrive to volunteer, so it would only be fair to include Dave Nicholson (1999: Mako, Things in my backpack) and Margaret McCarthy (1997: Phoenix, Commor spelling mistakes made by mathNEWS productionists, writers and editors).
Thanks goes to Gino's Pizza who supplied us with the pizza that we asked and paid for and to everyone at Graphic Serv ices, because they know who I am.

Bradley T Smith (1997: Phoenix, IKEA furniture
Pete Love (1997: Pyro, Condiments - teams Tartar Sauce
Mayo, Tzaziki, etc.

## Taking a Minor

## Taking a Miner

One smart thing you can do with your free time is kidnapping. There are two common ways of taking a miner at UW, heh, well, maybe three, but this column is far too short for such interpretations. One involves kidnapping, while the other, umm, also involves kidnapping, it's really all about who you kidnap. I am not a big fan of kidnapping the young, so I'm going to recommend you take a grown-man miner. Of these, there are several kinds available for the taking. Uranium miners tend to have radiation issues, so try to keep your distance. Coal miners are typically less biologically dangerous; however, there is the mess issue. Those who work in sepulchres or open-pit mines don't usually get covered with as much murk and mess, so I find them the best after the act of taking a miner, but getting them is awkward. Miners who work in shafts can be taken from their shafts a lot easier than kidnapping open-pit workers. So, in conclusion, kidnap guys who work in clean shafts. Or John Shaft.

Davey R Adams

## Fingering Fun with Unix

When you get your Unix account, you'll discover the fine art of fingering.

All the information you want available to mathies (and to non-mathies) can be found simply by fingering. Are you keen to get down to some fingering? Well, it's all very simple. From a command line in your account, type "finger < a name, part of a name, or userid>" and hit Enter. Next thing you know, there's information spewing out! However, this fingering come at a price, you are fingerable.

Here are fifteen things to keep in mind to make yourself an attractive target for the finger command:

1. No fingering jokes. It will stop being funny in about a week. Soon it will be as much a part of your vocabulary as "Bomber" and "epsilon-delta."
2. .plan: Your plan file. You can get at it by typing "pico .plan" or "vi .plan" or use some other editor I don't know of. This is where you write your long term goals, like world domination or graduation.
3. .project: Ditto with pico and vi, you keep short term ideas here, like "pass CS 134" or "write for mathNEWS." Maybe draw some ascii art while you're at it.
4. Don't write too much. The last thing people telnetting in from Windows somewhere need is to refinger you with "|more" stuck on the end. As long as they can read your status, most people are happy.
5. Update every year or so. Some people are in third year and still have their phone number from res displayed, what dorks. Type "chfn" to change finger info, and you can add things like your new address, phone number, office number, name, etc. Okay, they are not all dorks, I only learned about chfn in 3A. But at least my name didn't say my name was "lab_fees CS 130" like some people.
6. Keep it funny. Insulting plans indicate one thing, you are unable to be funny and have taken that rage and transferred onto others with your mean finger information.

Bradley Type "finger mathnews" Smith

## The DOs and DO NOT DOs of Life in Math

## Things are a lot different in university ... here's

 some of the stuff I've learned in my two years here.When I first stepped onto the University of Waterloo campus, lo those two years ago, I thought to myself, "I'll be fine if I follow the same procedure that I followed in high school." Well, it took me about 5 to 10 minutes to realize that life operates on a different level here. It's more involved. It's more maddening. It's more rewarding. That's been my experience: it's probably different for others. However, I'm going to attempt to 'enlighten' you with the 'wisdom' I've gathered over the years, and present it to you in a neat and concise "DO and DO NOT DO" format.

## DO: HAVE FUN

This is probably the most important thing you need to do. If you don't have fun once in a while, your brain will turn into a little pile of smouldering mush that smells like a carton of milk that's been in the fridge for 6 weeks. That's bad. If you only concentrate on work, you'll not only burn out, you'll miss a lot of opportunities to make new friends.

## DO NOT DO: HAVE FUN ALL THE TIME

This is about as important as the previous item. If you spend all your time carousing and debauching, you're going to be very disappointed when you get around to midterms and realize that partying 7 nights a week results in a mark somewhere between the average temperature in Alert and George W. Bush's IQ. Unless you're comfortable blowing your tuition money, this is something you definitely should NOT do.

## DO: GO TO LECTURES

Very important. You may think that lectures are boring (they sometimes are) and you aren't learning anything (very rarely true). I'll use myself as an example, so I hope you learn from my mistakes ... It was the first day of Stat 230, and the professor said something along the lines of, "I'll be teaching mostly from the course notes." Which I interpreted as, "You don't need to come to class." That was a bad, bad, bad mistake. Getting a $5 \%$ on a statistics quiz showed me the error of my ways. So take heed, young froshlings! Go to your lectures! Don't be like me!

## DO NOT DO: GO TO LECTURES AND BE A DUMBASS

Going to lectures and being stupid is a waste of your time and everyone else's. Sure, throwing paper airplanes at teachers and making witty remarks was fun back in high school, but that shiat doesn't fly here. In order for a witty comment to work, it's gotta be pretty damn witty. Anyway, if you can't tell, I'm stretching this point ... so, just take it at face value. Go to class, but try not to make that class a living hell for the prof or the other students. Although on those boring Monday 8:30 classes, it can be pretty damn tempting.

## DO: GET TO KNOW PEOPLE

Who should you get to know? Everyone! Your profs (you may need them to sign forms for you later on...), your classmates, your floor/housemates, that cutie from Arts you've had your eye on... Anyway, I'm under the firm belief that the social aspect of university life is the most rewarding aspect. You'll make some of your best friends here. But, if you spend all of your time working and not getting to know anyone, you'll miss out. I guess this sort of relates to the first point I made. Hey, it's got academic benefits too! When you're struggling at 4 am trying to get your stupid event-driven simulation for CS 134 to produce
good numerical output as opposed to the gibberish it's beeir throwing up, it'll be handy to know that programming wizard down the hall.

## DO NOT DO: SPEND ALL YOUR TIME IN YOUR ROOM AND/OR CLASSES

Explore! Walk or bike around Waterloo, and see what there is to see. Find some places to go on Friday night. (I recommend heading downtown. There's some good pubs down there.) Spending all your time squirrelled away in your room or some sterile classroom on the $4^{\text {th }}$ floor will result in a very narrow university life. This is the time to explore, try new things! You can't do that holed up in a couple of different rooms. Get out there: if nothing else, it will help prevent that pasty white computer lab skin tone people tend to get when they spend too much time coding!
Well, I could probably think of more stuff if I wanted to, but I'm trying to keep this article a reasonable size. You're smatt people, you got here. You'll figure it out. It's really just common sense. Besides, if I told you everything, you'd lose the the fun and excitement of figuring it out for yourself. Good luck with your studies, and all that other stuff.

Mike "The Ladies' Man" Savigny

## 10 Alternative Uses For Textbooks

So you were all excited and bought all your textbooks during Frosh Week. Now the day of the exam you say to yourself "] spent \$150 on that book I really should open it at least once."
So here's a list of some things you can to with textbooks

1. Assault weapon: some of textbooks weigh several kilograms and are easily thrown.
2. Weight training: Books are heavy, weighing quite a few pounds each, and are easily lifted.
3. Look Smart: Books are a means to show off the fact that you are educated and usually weigh less than a stone.
4. Fly Swatter: Once, during a lecture, Prof. Jackson took his backpack and threw it at a wasp on the ceiling. Do you really think that it would have killed the wasp without ${ }^{2}$ textbook in it which weighed more then 2 newtons? Really?
5. Building Cardhouses: Textbooks are sort of like big cards So you can make really big cardhouses. Though most peo ple won't have enough books to make a really kickass cardhouse. So get your entire class involved, you know you have enough books when you are counting the book by the ton.
6. Hammer: Textbooks can bang things just like a hammet they may even weigh many karats more.
7. Screwdriver: To put a screw in the wall, make a line it up where you want it and bash away. Works better if textbook exceeds 12 troy ounces.
8. Lullabies: The best way to fall asleep at night is to attemp to read a textbook. Or perhaps have someone bash yol over the head with a textbook. (Crap I can't think of an! mass unit to provide the necessary cohesion to this article ... ABORT ARTICLE!) [Damn, and he was just about th mention how balancing textbooks on one's head can imt prove posture - TaxiEd]

Dave Nicholsol

- It's Phat Albert here to give ya's the low down on this thing called Frosh Week. You see, I know what I'm talking about because this time last year I was perusing my Frosh Week edition of mathNEWS as frosh just like you, so I know the score. Frosh Week is a special time when a man and a women who love each - no wait that's not Frosh Week. <Ahem> Frosh Week is a time when you get to forget everybody's name cause you meet too many Mike's, learn the secrets of the campus like what IS that misshapened thing outside of MC or why Dana Porter is sinking, and learn what it is like not to sleep.
Introductions aside, on to business. Now tha truth about Frosh Week, and I mean tha truth. Not the propaganda found in your Frosh kits (wait a sec...), or the stories from embittered people (most of whom didn't really participate in their Frosh Week). No, it's the straight dope. To present this I have the Phat Albert Principles of Frosh Week (not FOC approved) followed by Communication Skills and Info on Events. Enjoy!


## Phat Albert's 11 Principles of Frosh Week

- Free Food - You shall be fed, a lot. Once you finish eating you will get to eat again, then again. At the next event you will find free food. You might want to consider collecting it for the future for you will not be able to eat it all now. In fact, keep for the Scunt, you never know what will be on the acquisition lists.
- Standing in Line - Ok, honestly, this is really a university life thing not a Frosh Week thing. Did you hear about the WatCard line at Student Life 101? Throughout your time on this campus you will get the privilege of standing in many lines, even lines to get into lines. To get the free food you'll end up in a line. Want to pay some fees, get ready to wait. Want some books, take a number. Doing anything with Co-op or student loans, got an hour? And so on. In fact, don't be surprised if you find yourself in Needless Hell (aka Needles Hall) standing among people trying to slowly get to some sort of a counter behind which is someone you hope can help you. With this being the case the lines during Frosh Week are really just a method of acclimatizing you to you're next chosen step in life. So, if you find yourself in a line and having no idea why, don't worry, just get used to it. You might find it handy to keep some mathNEWS around to peruse when you find youself among people in some sort of queue.
- Moving in Herds - As frosh you shall be the sheep and the Frosh Leaders the shepherds. You walk in groups far and wide across the campus, even off campus, to see some of the greenery of this great town. Don't feel bad, this is kind of required with whole organization of trying to deal with over 1100 frosh.
- Losing your Voice - Water, Water, Water! When I first came here I moved in a day early being from out of province. The next day, I heard all this shouting, and so I was introduced to this fine tradition of Frosh Week. They were shouting something about water. Were they thirsty perhaps, maybe because they were yelling so loudly? No, wait, oh, the name of the University! I get it now! Anyway, for your Faculty, for your residence, and anywhere across campus during the week you will be shouting, or finding yourself yelling. Join in for it is good for the lungs.


## Communication Skills

The next part of our journey is an exploration into the basic conversation skills you will require for Frosh Week. During the week at any time you have the right to social interact with anyone you want using the following method.
You: Hi, what's your name?
Them: Oh, my name is (insert name here).
You: They call me (insert witty nickname here) but you can call me (insert real name here).

Them: Oh, cool. (insert awkward silence here)
You: So what Faculty are you in?
Them: (insert a Faculty name of your choice), you?
You: Oh Math!
(assuming the conversation continues)
Them: Cool ... so where do you live?
You: I live (insert name of residence here), you?
Them: Yeah, I live (insert name of residence here). Well, see you around.
You: Yeah ... see ya!
There you have it. Social contact. Next you will either become great friends with this person, or never see them again (perhaps something in between).

## Info on Events

Finally a glimpse of the events you will have the privilege to enjoy during the course of the week. You get the privilege of Earning Your Tie which is always a stylin' time. The Tournament is a day in the park which is full of all sorts of games and competition; may the finest Frosh Team win. Something interesting always happens at Campfire. Festival of the Ages (ie. Pub Night) is a sweet time and a great party. Then there is Scunt. On Wednesday there will be this finest form of competition among the teams know as The Quest, or more properly Scunt. If you have a skill to do anything, anything at all, you can find a use for it at Scunt. Have collectibles of any kind, we want to see them. Strange tricks, entertain the Scunt gods with them. Good at games, trivia, improvving, dancing ... the options are really boundless. All the events are awesome but there is a special event that probably isn't on your schedules: Tie Guard. Now Tie Guard isn't for everybody, and in these pages you won't find a description of exactly what the deal with it is, for if you really want to know you have to come and ask yourself. But if you happen to enjoy really not sleeping and chatting for 5 hours sounds like something you might like to do, I encourage you have a look, but be warned, staying at Tie Guard is a privilege, not a right, so you and your team may have to show good spirit to be awarded the right to say the night.
In closing I would like to make a small personal plea to all the frosh out there. Do you have a humourous look on life? Can you actually spell? [Well, spelling's not a big requirement for us. - TaxiEd] Enjoy writing in any way? mathNEWS is always looking for new people to start writing and proofing for this fine bi-weekly publication. Without new frosh to help us out we are lost. So if you want to get in on this 28 - year tradition come out the to first Production Night (signs will be posted) and the finest editors in the land will give you a hand and get you started. [Hey Pete, we've been replaced! - TaxiEd]

So bye for now everybody, and keep Phat and Phresh.
"Phat" Albert O'Connor

## Directors' Message

BOO! We're sorry, you are probably scared enough being in this unfamiliar place. You don't have to be though. The Math Faculty is full of friendly people. In fact, you are meeting a whole bunch of them this week: your leaders and fellow frosh. We greatly enjoyed creating the week-long journey you are embarking on and invite you to take full advantage of this opportunity to make new friends and get acquainted with your new home. We know that you will have a great time this Frosh Week and hope that you notice that your leaders will too. This may get
 you thinking, "Hey, that is something I want to do." Well you are in luck! The Math Orientation Committee usually has several first-year students in it. Just keep an eye out in the Fall and Winter terms for applications and information sessions from the Math Orientation Committee. (Unless whoever takes over our positions wants to do something different.) We know that from your perspective, the two of us may seem unapproachable, but if you see us around say hi and introduce yourself, we want to meet the people that we have made this week for.

Doug Edwards and Nory Prins Math Orientation Monarchs


Michelle Cheng
Liam McHugh-Russell
Tushar Singh *
Megan Davis



Adam Stanley *
Katie Law * Mike Bowman Jenn Lo
Michael Chen
Michael Jepson Ilyia Kaushansky Jesse Bergman


Brian Sibbitt *
Heflin Mendonca Gavin Brown-Jowett Ben Willson Shannon Murray
Randi Ash
Anton Fedorenko * Michael Fischer

## Mike Henhoeffer *

 Ian LaidlawYolanda Dorrington
Karl Pinto
Jennifer Symons
Corey Theiss
Greg Hines


## LEADERS LEGEND:

Head Leaders Leaders Icebreaking Leaders * means also a Coordinator



## Melissa Johnson

 Mark Elkins John Davis *Raymond Lai * Danielle Dmytar Joseph Stanttener Robert Yee
Philippe McFadden


Anthony Dharmasurya *
Gilad Israeli
Kelly Seburn
Nick Page Jasleen Matharu * Stefanus DuToit David Goldsmith Derek McCart


## Tie Guard:

Nadia V. Ursacki Michael Brown Josh Bertrand

## Liam Dorey

Bradley T Smith * Laura Edwards Magda Siemiginowski Josh Grisdale Warren Fung


## Steven Kalmar

Mira Patel Justin Lee
Ryan Browne
Carolyn Welch *
Dmitry Dan Brovkovich Jeff Sawatzky


Teamsters:
Daryl McEachern
Kate Long


Mike Froh (Finance Director) Peter Lizak (Photography) Lateef Yang (Photography)



## Dan Pollock

Kyle Swidrovich
Cherith Tse
Holly White Jeff Zakrzewski Rebecca Murrant James Emery Victor Hsi

(as) 5

## Buddy Betts

Nawa Hamdi
Marshall Drew-Brook
Geoff Crutwell
Mark MacDonald
Vicki Ferguson
Adrian Tang
David Hayes


Stephen Skrzydlo (Head Icebreaker)


## Van Lee *

Pamela Willaimson Chris Micacchi Brian Dubois * Keizo Marui * Kristie Hai-Kyung Lee * Matt Mejaski Sarah Lennox


Michelle Medina
Ken Chung *
Rob Szumlakowski
Lisa Rubini
Colin Davidson
Louis Mastorakos
Paul Ullrich

# The Wanderer's Guide to the MC 

## Don't go up to the $6^{\text {th }}$ floor without it

Welcome to UW and, more specifically, the Math and Computing building. This will be your "residence" for the next 3,4 , 5 , or, in extreme cases, $6+$ years. So it is to your advantage to get acquainted with the MC building. I would like to take this opportunity to give you adventurers a brief walk-through.
If you enter MC from the entrance that is near the blue "sculpture," you will notice a brain sculpted on the wall. Officially it is an artwork called Quasar that was erected back in 1971. In reality, it is the preserved brain of a giant that once lived within UW. Legend has it that he went into a deep slumber in 1965 on the current site of MC. As the construction of the building had already begun, the workers decided to remove the brain from the giant and drag his body to Columbia Lake. As the brain was impossible to move, the workers poured molten brass onto the brain at its present location. According to rumours, the giant has acquired a new brain and is still alive. There has been sightings of the giant near the optometry building. So go there at your own risk.
If you go up two flights of stairs, you will reach the liveliest floor - the $3^{\text {rd }}$ floor. The corridors are filled with chatters and quirky remarks. You can have a sit on a comfortable couch, enjoy a decent/great meal, or loiter in the MathSoc office (don't do it unless you have connections there). When you walk on the $3^{\text {rd }}$ floor, be very careful as there is a death trap that consumes those who get too close. The name of the trap is MC 3018, or as we MC veterans say, the Real-Time Lab. Don't even go near it. It contains many items, such as a marvelous train set, that will lure you in. At that time, the trap activates and sucks you into another dimension. Which dimension? Nobody knows for sure as no one has yet been able to get out of there alive. As for the people in the lab, they are just decoys to give an impression that the lab is like any other lab.
The $4^{\text {th }}$ floor consists mainly of classrooms and professors' offices. The classrooms frequently emit chants of Math 136 Linear Algebra 1. The only thing that prevents the floor from being completely transformed linearly is the bi-weekly placement of mathNEWS on the four corners of the floor. You can find the Tutorial Centre on one end of the floor. On the surface, the tutors are there to help students do assignments. In reality, they are there to prevent the building from tilting to the other side, as the computer servers are on the other end of the floor below.
You won't find much movement on the $5^{\text {th }}$ floor as it consists mainly of offices. The MUO is there, and so is the Math Copy Centre. The MUO (Math Undergrad Office) provides essential service to all mathies. The people there are like answering machines - there is nothing they don't know. If you like line-ups, then the $5^{\text {th }}$ floor is your place to be. The corridor to the Copy Centre is rather dark, a precursor of what students are about to get - the Stat 231 Course Notes. They don't call Stat 231 "the most hated course" for no reason - it serves to weed out the weak.
Now the tour reaches the $6^{\text {th }}$ floor. The Statistics department is located on this floor, which gives you more reasons to dread Stat 231. The floor plan is confusing and many have lost their way before. Be very careful when you go up to the $6^{\text {th }}$ floor. There can be many lost personalities lurking behind a pillar or
a wall. If you are not vigilant enough, you will not get out of the floor alive and will become nothing more than a statistic. If you want to venture into the $6^{\text {th }}$ floor, don't go alone.

The $7^{\text {th }}$ floor remains a myth even to professors. No one that goes up there ever returns. There are many rumours about the $7^{\text {th }}$ floor. Some say it is a secret lab where professors perform top-secret research, some say it is a hidden missile base, some believe that it is a ultra-comfortable area for professors to unwind. What's really in it? The collective imagination of the MC population.

Now we go all the way down to the $1^{\text {st }}$ floor. It is very much like the $4^{\text {th }}$ floor, except without a Tutorial Centre. At one cor ner of the building, there is a flight of stairs that goes dowrwards. At the very bottom of the staircase there is a door. What behind the door? It's anybody's guess. Only the bravest have ever tried to open the door: others just go back up the stairs There is also a passageway on the $1^{\text {st }}$ floor that leads to the Chemistry 2 building, but since you will be spending most d your time in the MC, you won't use the tunnel often. If you do intend to use the tunnel, be wary of violent explosions. After all, it connects the MC to Chemistry 2.

Up one to where the "main" entrance was and you will be on the $2^{\text {nd }}$ floor. On this floor you will find two classrooms that do resmeble what one thinks of lecture halls. They are just what you expect - dull walls, lack of lighting, and boards that only keeners in the front can see. Opposite those classrooms are the "general-purpose" labs. CS 100 labs are held there. If you are desparate to look for a girl/boyfriend that may be a good place to find one. Most of the prime estate (i.e. window offices) are taken by IST (Info. Systems \& Technology) employees. They don't come out off their offices often, so they don't make many face-to-face conversations. If you see an IST employee, find like the wind as he can drive you into an endless conversation. The computer store is also on this floor. Stay away if you are impulsive, there are many glitzy items that lure you to pen your wallets.

This concludes the tour of the MC building. While this gives you an overview of the building, the best way to get acquainted with the place remains exploration. So when you have two hours between classes, feel free to be an explorer and find what's so interesting about the building you call home. Have fun.
(Disclaimer: Some of the above features may be as imaginary as $i$, so don't take everything I just said, or any other article of mathNEWS, literally.)

Jason "the Screamer" Lav
I'm only a Screamer by name, I usually don't yell spontaneously

## Proof that Math is Math

Applied math is physics.
Applied physics is engineering. Applied engineering is art. Applied arts is business. Applied business is math. Therefore, math is math.

## The Frosh Cornered

## The Complete Frosh Experience (Minus the Residence)

The Frosh Cornered was a regular column in mathNEWS the past year. It was supposed to be called "The Frosh Corner," but it didn't have the same humorous ring as "The Frosh Cornered," so I added the "-ed" behind the Cornered, hence the final answer: The Frosh Cornered. I, The Cornered Frosh, planned to maintain it as a bastion of sanctuary for frosh issues, but it turned out to be one heck of a ranting ground. This probably is the last Frosh Cornered printed because I am no longer Frosh, and maintaining a column called The Frosh Cornered without actually being a Frosh is just plain idiotic. It is ironic because it's the first and only Frosh Cornered you've ever read (unless you've read mathNEWS on the Net).
Before the Frosh Cornered officially retires, I have many experiences and tidbits to share with you all. It doesn't seem fair for you all to go through the same tragedy some of the Frosh in my year went through, at least not without some sort of prior warning. The following is a small list of advice that I, and my colleagues, have prepared.

- GO TO CLASSES: You paid for it, why not get the most of it. It doesn't make any sense to skip classes (unless you stayed up until 4 am coding your CS assignment), so just go to class and learn something while you're there. Take your chances, and you'll maybe meet a nice prof who will teach the Rules of Calculus well.
- Your tutors are an untapped resource: For each math class you attend, there will be a tutor assigned to your group of no more than 45 . The tutor is there to pick up where the prof left off in even more detail. Feel free to ask questions you are too afraid to in class because of the large class size. If you don't ask these tutors questions, you're throwing away an excellent opportunity to know the material better.
- The profs are here for a reason: take advantage of it:Your profs will undoubtedly have office hours. Stop by and ask a few questions you may be iffy about in class, or just drop by and chat. Many of these profs are quite personable if you get to know them. If they know you well, they may even teach you a few tricks not taught in class!
- The more people you know, the more connections you make: Although it may seem like pure social tactics, making many friends in your class and outside of class is a good thing. As you are scattered into different classes for your 1B term, you may not see your 1A classmates for a while. Keeping constant contact with your classmates outside of class is a good way to keep you occupied, find people to party with, and maybe buddies you can do assignments and study with. Heck, you may just meet the guy/ girl of your dreams.
- NEVER, and I mean NEVER, ask a girl out using JAVA code: I made that mistake in my 1B term. Please, for the love of the Pink Tie, NEVER DO THAT EVER EVER EVER! No matter how cute or appropriate it may seem like at the time (if you're in CS class, you're looking for love in the
wrong places), it is NEVER a good idea to ask someone out on a date using JAVA code or ANY programming language. Not only will you get turned down in a explosive fashion, you'll also be the butt of all jokes for the rest of the term, or, as in my case, for the next 4 years in University.
- All work and no play makes Homer go something something: There are human limits to what you can do. No one can code for 36 hours straight (damn, I've tried, and it's not pretty), and you shouldn't try. Take breaks from your programming or studying of Taylor Series. Throw the football outside without friends or just take a nice fall stroll off campus with your buddies. Don't forget: You can't learn anything if you're insane.
- Making friends ... actually requires effort: In a school in which almost 4000 mathies can roam free at any one time, making friends in this faceless hallowed hallways is a difficult feat. You have to take the initiative and introduce yourself. Maybe stop programming in front of your terminal and turn to the person next to you and say "hi," or join one of the many clubs here at UW. There are clubs for everything, right from DEX (the University of Waterloo's version of DECA), to The Buffy Watcher's Club (they watch Buffy the Vampire Slayer as a hobby); there's bound to be a club that fits you. You'll enjoy the events, and you'll meet excellent friends. I took a stab at MathSoc, and I've met some very interesting people that I'm honoured to call my friends, and I'm sure you can do the same thing in different clubs ... I think. Oh yes, don't forget mathNEWS. mathNEWS columnists are very nice, datable people too. Just ask Pete Lizak, one of the editors. He'll tell you the rumours about us are all true!
- Music from Gladiator, The Peacemaker, The Hunt for Red October, Crimson Tide, and Mission Impossible 2 are great music to study to: What do all those movie soundtracks have in common: They are all composed by Hans Zimmer, probably the greatest soundtrack composer of all time (Jerry Goldsmith of Star Trek comes in a close second). The music is so compelling, energetic and uplifting it almost makes you want to get up at 4 am in the morning to understand those proofs you need to know for your midterm. Emphasis on 'almost.' Essential tracks: "Barbarian Horde" from Gladiator, "Trains" from The Peacemaker, the main theme to The Hunt for Red October, " 1 SQ " from Crimson Tide, and "Hijack" from MI2 are great tracks to listen to. Actually the entire CD from Gladiator is recommended studying music.
- Don't get discouraged: If you got one bad midterm or one bad test, don't give up. Keep telling yourself: you're in it for the long haul. If you are confident that you'll succeed and study hard, you will get the grades you deserve. Don't wait until the last minute to study for that final or midterm, and don't wait until the last day to finish off that CS Theassignments, and you'll keep your confidence high.


## A Mediocre Guide to UNIX Labs

There are a few UNIX labs around the Math building, each with its own personality. Everyone has their favourite, and someday you will too, so here's a basic introduction to them to help you on your way.

- The Stuffy Lab (MC 3006):

This sucker's first because it's my favourite. The old chairs were ultra-dusty, and the air would bother me all the time, but since they got the nice blue chairs I love the room. It's also the favourite for mathNEWS production. An added bonus to the room is the six express terminals: If you're in a rush between classes and don't want to lose several seconds bringing up four windows or so, then these are ideal for you.

- The New Blue Lab (MC 3008):

By combining a small lab with colour monitors and some office space, we gained a much larger lab with the perfect floor for rolling chairs. The terminals are quite private it's like having a mini-cubicle, co-op job practice - and the cords attaching the chairs to the desk are perfect for bungee-chairing. A quality room, but difficult to escape from the middle of when full.

- The Purple Lab (MC 3022):

The Purple Lab is the only third floor lab I haven't seen changes in during my four years here. Very open concept, lots of space, big terminals, but nothing new. The chairs are old and the floors worn. This is a favourite of upperyear students who have just become used to it.

- The Nortel Lab (MC 3007):

Last year this was the Maple Lab, the year before it was an overflow Mac Lab, and now ... well, it may be open by the time classes start - it has been closed for around ten months now. If it's designed like the Maple Lab, it'll be nice, not too different from the Stuffy Lab, except that its windows give a view of the hall, not outside.

- The Train Lab (MC 3018):

Not for frosh. Not for second-years. Not even for those in third year. This yellow lab is home to CS 452, Real Time Programming, which sees about 50 students a year. Ask around: most people will tell you it's a pretty difficult course. Keep an eye on the window as there are frequently humourous items displayed. I've seen a train in a noose, ALF, cartoons, and mathNEWS articles.

- The Second-Floor Lab (MC 2037):

The only UNIX lab with a stage. Why? Because this used to be my calculus tutorial room. It was converted into an additional lab late last Fall term, possibly because there was no space anywhere. Very futuristic, pretty blinking lights, and a huge chalk board for rough work.

- The Sixth-Floor Lab (MC 6080):

It's true, it's there and it's empty. The monitors were small and black \& white, but when you were desperate for a place to work, it was the best place to go. But now, they've got big colour monitors, and the lab is awesome, but Jeff asked me not to mention that because it's his secret back-up lab. Oh well, he gets his own terminal in the Train Lab this Fall.

- The Old Train Lab (MC 3059):

Last year's home to CS 452 students, it is currently being converted into a new Mac lab. The curtains and the room's history are the high points of this lab, which will hope-
fully open this term.

- The PC Labs (there's a few):

Okay, I've stopped with the UNIX labs. These machine dare to run Windows within the math building - I dorit know who let them in here. I believe there are for the firird year CS classes, I don't know I'm old. <Sad> Anyway, you can play Hearts and Freecell on them. Cool!

- The iMac Labs (all over the building):

I'd like to say that it was my goal to get an account on at iMac, but it actually happened by accident. The Macs ar for outsiders taking early CS courses, and for Geometr students (PMATH 360) like me. The iMacs are pretty, co: ourful, and have wacked mouses, plus you get into MO 3003 , one of the most high profile labs. People are alway looking in on the freaks inside ... I mean, iMac users.

Bradley Terminal Smit

## The Cornered Frosh Continued

- Learn Unix, stat!: You are bound to have friends who knor Unix, Learn a few rudimentary commands from them ani start learning the Unix environment because before long you'll be shoved on your merry way from the friendly con fines of your iMac lab (or the hellish prison that is ou Windows Labs) to the ugly and plain rooms of the Unis workstations. Better to be prepared than to be caught of guard, because there are many future assignments to $b$ completed in Unix.
- Eat Well: All your parents have asked you to eat well whil in university, and you probably either forgot or pushed ther outside the dorm confines before they could finish the ser tence. Either way, a constant diet of Mountain Dew an Smarties is not the best idea for your body. Keep your bod fueled well and you will work efficiently and stay focused The cafeterias, while not serving the best tasting foo around, does provide nutritional meals that won't poiso you. Anything that won't kill you will only make yo stronger, so go ahead with that extra serving of salad th cafe always have in abundance.
- NEVER, and I mean NEVER, use the toilet paper in thi washroom: That one-ply stuff isn't even suited for that bed featured in that Bud Light commercial. Either bring you own or hold it until you get back to your place. In any case keep a nice, soft roll of 2-ply tissue hidden under your bed Why under your bed? It's a commodity because there ar bound to be people unprepared, and they will pay a pre mium to use toilet papers that won't cause a paper cut on their behinds.

I guess that's it from The Cornered Frosh. Stay positive, stal. focused, and most importantly: have fun. Learning doesn't havi to be a drag. Just find some new found friends and study and have fun.
Just make sure you don't ask someone out with JAVA code, 0 C + + code, or Assembly. Flash is marginally acceptable, bu not recommended.

Raymond CT La
The Cornered Fros

## gridCOMMENTS 120

- Hi there. I am the gridCOMMENTS, best friend of the gridWORD. We hang out together a lot, usually on the last page ins of mathNEWS. In me you will usually read the yammering of whoever the GridMaster happens to be. This space is usually first filled with a list of those who submitted solutions to the previous gridWORD, and it tells you the winner's name or pseudonym if they chose to hide their identity. Next off is a gridQUESTION, which is used as a tie-breaking device or for the GridMaster's entertainment only. And finally, I like to mention where you can drop off your grids for the opportunity to win a C + D gift certificate.
For example, I'm going to talk about a currently open gridWORD today. You see, the final gridWORD from last term was published without solution, partly because it was neat and partly because the editors didn't get out that bonus issue they had wanted to. So, there is a gridWORD that needs solving. These are original crossword puzzles, with the template and the cryptic questions done by a math grad named Linda, and the conventionals thrown together by the editors, or someone else, if they have time. Blah, blah, blah, long story short, both the cryptic and conventional crosswords need solving, and it looks like only those who get the Frosh Issue will have that chance because nobody has submitted solutions at the moment.
Prizes are available, in the form of gift certificates for whomsoever completes the most blocks in a puzzles - one for each version. Ties, as I mentioned earlier, are broken using random numbers and solutions to the gridQUESTION, which, for this edition, is What are you doing here?
Now, what if you don't know how to do cryptics? Well, I suggest you learn, because they are good exercise for your mind. There are plenty of places out there yearning to teach you, from newspapers to books to Linda, our cryptic writer (from whom I stole some ideas and examples for this). Do a search for "how to solve cryptic crosswords" and you'll see what I mean.
For those less interested in doing the research, here are the basics:
- Hidden Words: Sometimes, the solution is in the question. Usually these are indicated by saying 'in,' like with the first clue of this puzzle. Here, SAUSAGE is hidden in 'Nassau sage-stuffed meat.' There, now you've started solving the puzzle.
- Anagrams: Very popular type of clue, it also has indicator words life 'scramble,' toss-up,' 'mix,' 'changed, ' 'reformed,' etc. My favourite in mathNEWS was 'I fell to a strange form of oral sex,' where the anagram of 'I fell to a' was FELLATIO.
- Double Definitions: Here we have two clues concatenated. Like 'Brain food,' where NOODLE is what you would call your brain and is food. An even simpler one is 'Run game,' where GO is a game and part of the act of running.
- Homophones: Words that sound the same but are spelled differently. These are often indicated with words like 'hear' and 'sounds.' A typical one would be 'Lake sounds spooky.' ERIE is a lake and it sounds like EERIE. Cool, hunh?
- Backwards: Direction is sometimes the clue, like 'up' for down clues and 'reverse' or 'back' for across clues. 'Cola drink is pep reversed' is telling you to write 'is pep' backwards to get the cola drink PEPSI.
- The Rest: I'm no cryptic expert, so I'm not sure how to categorize the remaining types, but here are some pointers. Roman numerals may be used, 'initial' sometimes means look at the first letters ('heads' is the clue word in 9 across), when a clue says 'the French,' they mean 'la' or 'le' will be in the solution, 'points' or 'directions' mean that N , $\mathrm{S}, \mathrm{E}$, and/or W will be in the answer, and puns are always acceptable.

Hope that's enough to get you started on cryptics. If you need conventional clues explained to you, please see me so I can kick you in the shins.

## The gridCOMMENTS

## mathNEWSquiz 107A

A First Course in Squizzing

Hi, I'm a Squiz. Every issue I appear with questions for the triviaphiles among you. The questions are usually hard and weird, but that's because that is the nature of the SquizMaster. You don't have to get everything correct, but the more you score, the better your chances of winning a $\mathrm{C}+\mathrm{D}$ gift certificate - the prize for the highest score for the Squiz.
Since there is no SquizMaster at the moment (Would you like to be SquizMaster?), I am not a true Squiz, but only a taste of what you would normally find. There's almost always a set of lyrics to identify, then some odd categories of the SquizMaster's picking. Sometimes, it's just a list of questions. You never know. Anyway, here's an example with fake questions:

## Lyrics

## We give you the song, you sing it

## 1. O Canada

2. Treble Charger's American Psycho
3. Trio's Da Da Da
4. Math Rocks
5. Spirit of the West's Venice is Sinking

## Classic Medieval Questions

1. What is your name?
2. What is you quest?
3. What is you favourite colour?
4. What is the capital of Assyria?
5. What is the air-speed velocity of an unladen swallow? Bonus: African or European swallow?

## The Blatantly Obvious

1. On what surface is ice hockey played?
2. Where is the Leaning Tower of Pisa?
3. Who originally used Leibniz notation?
4. When was the War of 1812 ?
5. Name a character from Calvin and Hobbes.

Now, go do the gridWORD there're actual prizes for that one.


## Cryptic Grid Clues

To complement frosh week's historical theme the bold-faced clues also yield answers to the question: What came first? An example would be, if the solution was 'winter,' the before is 'fall.' For brownie points, identify the Before to go with each of these After's!

## Across

6. Available in Nassau: sage-stuffed meat (7)
7. Conceals trees (5)
8. Wagon heads to Cambridge area race track (4)
9. Arrangement of formal yews found in spring garden $(3,7)$
10. At end of the world music ran backwards, all right? (8)
11. Mr. Smith or Mr. Wesson? (6)
12. Coin-free image (4)
13. Flat alien comes back after carpet (5)
14. Buzz backed tournament (4)
15. Robustness cost runt concern (6)
16. Fix it with dog-hair drape on top (8)
17. Mort is on the inside-mail me back to discuss it later (10)
18. Oath sworn without restraint comes to good end (4)
19. Cream in your deli tea? (5)
20. Thorium reduced by Big Bang (7)

## Down

1. Unfortunately, cats see nun as lunch (10)
2. Whine about my mare (6)
3. Change sounds the same (4)
4. Turn pile, go back and up-end egghead to finish (8)
5. Seeing low inner light (4)
6. After LA this is where they perform opera (5)
7. Bad man sure identifies family (7)
8. Ship in the blanket chest? (5)
9. By mistake I towed Nina across the country (10)
10. Bad review in Case of the Last Car (7)
11. Erin's Mom messes up and gets 26 wrong (8)
12. Minibus delivered one then went off in a blaze of glory (6)
13. Slip eggs back on either side of the tracks (5)
14. Buns shadow (4)
15. Two teaching assistants say good-bye (2-2)

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Too old and senile to remember being frosh: Bradley T Smith \& Pete Love [You think you're too old and senile to remember frosh week, what about me damn it! - Latrell][Oh shut up Brian, stop your whining, you young whipper snapper! - Jean-Guy!]


## Grid instructions on previous page

## Conventional Grid Clues

## Across

6. Subtracted from number
7. Cryptic gridWORD author
8. length $\times$ width
9. Place under water again
10. Student from SW corner of campus
11. Owing to someone
12. Loquacious Swimmers in Mathematics International
13. Popular style of car
14. Common drive, Ring $\qquad$
15. People watching the tie
16. Eats steak and potatoes
17. A cube, or another similar figure
18. Story
19. Sum
20. Coming of age ceremony: Bat $\qquad$
Down
21. Not recognizable
22. The dean's last name
23. Puts two and two together
24. Like a serf
25. Initial bid in poker
26. Really stupid guy
27. Any formal system with only functions and constants, b no relations except possibly identity
28. Type of wave
29. $\mathrm{dy} / \mathrm{dx}$
30. $\qquad$ Life Centre
31. Expected sorority behaviour
32. One tenth of $30^{2}$
33. Pink-tie prof Stanton
34. Big faculty at UW
35. Arthur C. Clarke series
