

Turing solves the halting problem, only to discover that the REAL problem with his machine is what to do with all the tape.

Prez Sez

Hi everybody out there this day. It's Friday and all is well. Not really, but it sounds good.

Well the big news of this article is TUITION (there if I capitalize it people will read it). Yup, I know how much we are all going to pay next year (tentatively, still has to pass some rubber stamps, but essentially this is it). Let's see, all you non-CS majors will pay a 9% tuition increase. All us CS'ers will pay a 10% increase over that (a 19% increase). This is due to that whole differential fees / deregulation thing. We pay a premium based on higher potential future earnings (or at least that is what the government says about it). The good news is that 30% of that increase goes to bursaries. The bad news is that I don't receive any of those bursaries. Oh wait, that is only bad news for me, ah well. To put things in perspective, currently on stream are approximately 669 Non CS majors, 912 CS majors, and 575 frosh. Also it is important to note that even first year students who are registered in CS will pay the increase despite taking the same bloody courses as everyone else. This is because of the complications involved in separating it, according to the people upstairs. Well if you want more info on this, well, I hate to say it, but you can email me (snuggles@mathsoc or prez@mathsoc or pres@mathsoc).

A while ago, I screwed up. I would like to publically apologize to the PMAMC&OC, their members, and Professor Lamb for messing up. I take full responsibility for the error. I didn't get a slide projector when I said I would and it made a talk that was scheduled impossible. I'm sorry.

Exams are coming up and that means mass craziness. Good luck to all. And most importantly good luck to me. Try to sleep and eat regularly even when you are studying, cause a healthy body is a healthy mind. That public service announcement was brought to you by someone who doesn't want to catch whatever you're going to get by mistreating your body.

Of course this is the last *math***NEWS** of the term (I assume; if I'm wrong, then skip this paragraph). Do not fear. The Snuggly One will return in the Fall for another rousing term as Prez. (Read: bloody two-term commitment, just kidding, I love this job, I'm insane, it's insane, we're a perfect match). Hell, I'm even thinking of writing a column in the Spring while I'm relaxing in Toronto (happy regular student located here). But when I go to camp, ah, I can manage. Anyway, how can I possibly do without my biweekly destressing sessions with my favourite psychologist, *math***NEWS**. Meanwhile, in the Spring you will be served by a very talented and entertaining Exec. Here are their email addresses if you want to get a head start on volunteering for that term.

Wearing the number 66, your Spring 1999 President, the Light One himself, BRUCE LEE-SHANOK (bcleesha). Yes his name is Bruce Lee, yes that entertains me. Wearing the number 67, your Spring 1999 Vice-President Academic, CHRIS BRAWN (cbrawn). This brawn will care for your brains. Wearing the number 68, your Spring 1999 Vice-President Finances, JER-EMY WITMER (jjwitmer). Yup, the current Mathletics director is very dedicated, and now he is in the Exec. And last, but not least, your Spring 1999 Vice-President Activities and Services, NATALIE J THOMPSON (njthomps). That's right a Thompson Twin in office.

The End of Term Party is coming up and for public record MathSoc will not be providing any alcohol or hot tubs this term, we are having good clean fun. A potluck dinner. It is April 1st and I can't go so I'm bitter. Email sunshine@mathsoc for more info (finally, email someone other then me, yayay). I'm going to be in Proctor (BC) having the second seder of Pesach with my family out west, so I can't attend [tear, cry]

To keep you updated on what your favourite society is doing for you on the Academic Policy level, at the next Undergraduate Affairs Committee meeting (Monday the 29th) Trevor Ray (VPA) will bring forth his proposal to increase the number of declarations allowed on your diploma. Currently you may only have 2 items on your diploma (items = major, minors, options etc). If you have more than that, you pick two of them, and for the rest you can get a letter of recognition. We want it that you can have as many as you want on there. We'll see what happens. If you have any academic beefs please email (vpa@mathsoc, hey, another address that isn't mine, I'm on a roll).

The Dark One - Your Snuggly President I will return, and when I do, there will be absolutely no consequences Join the Dark Side, you know you want to.

The Math Society would like to congratulate Sarah Kamal and Matt Walsh, who have been awarded Honorary Lifetime Membership in the Math Society for their contributions to math student life.

PMC Makes Absolut Mathematics Come Off Cool

Heldermpieval/indisfecture and I hope that everyone is still as happy and peppy as they were at the beginning of term (am I annoying anyone yet?). The Pure Math Club's activities will have been mostly wrapped up by the time this hits the newsstands, so this is to wish everyone lots of luck on exams and to give much thanks to the people who will have helped the PMC work so smoothly. Special thanks to Jim Nastos for running an excellent set of Short Attention Span Math Seminars! Thanks also to Jeff and to all of the C&D for providing refreshments for our talks. Thanks to Joel for having done a great job organizing the Bernoulli Trials, deuxieme parti. Thanks finally to all of the MathSoc publicity board, chaired by Nory, for helping us out by advertising our events. Thanks also to Stu for Preserving MC3033's Cleanliness. [Note to ed: Mike's name is not typoed below]

Finally, I would like to congratulate Fichael "Dimp Paddy" Mroh on his most excellent job winning the Bernoulli Trials at the ripe young age of 81. These were a sequel to the "popular" Bernoulli Trials run by the faculty earlier this term... and featured problems by the amazing Richard "the Rock" Hoshino and held at Suresh "Sureshnaidu" Naidu's house. I was unable to attend, but heard it was Absolut Mathematics at its best.

Good luck with exams, and see you around,

A Farewell to *math***NEWS**

One Last Kick at the Ass

So I guess this is it. After five terms as editor and five more as contributor, my connection with *math*NEWS is at an end. It'll be strange to leave, since I've poured so much of myself into the paper.

I was at my first *math***NEWS** production night during my first term of school. (Fall 1994, if you've not been counting.) It was by accident, as I was actually staying around late to type in changes to MathSoc's bylaws. (I'd been tricked, I tell you.) I got to meet such notables as Steve "Flipper" Shaw, who later told me that Fed Hall was not always Fed Hall.

My first contribution to *math***NEWS** was in Spring 1995, when then-editor Stu Pollock assigned me to try and convert *math*-**NEWS** to the least intuitive desktop publishing system known to man. Needless to say, after wrestling with the computer for a few hours and losing, I gave up and slunk back to my Village room to sulk.

My first useful contribution to *math***NEWS** was in Fall 1995, when I was Chief Returning Officer for the Math Society, and I had to tell people that they were supposed to come out and volunteer or something. The articles were well-received by the four or so of my friends who read them.

Basically, *math*NEWS has been a significant sink for my time for about as long as I've been here. The paper has gotten me dragged into the police station on a Saturday morning (and not as a witness), threatened with lawsuits, and in general too tired to move about three days out of every two weeks of lectures.

I'll miss ya, you ol' rag.

What more can I say? My five years as an unkempt, plumed university student have been an education in nearly every sense of the word. In 1994, I was a shy kid with a feather in his cap, a flair for the performing arts, and a talent for math and puzzles. Now... upon reflection, not all that much has changed, I guess.

So what lessons can I pass on to those who remain? Nothing, really. Pretty much everything that I've done at U(W) – from *math*NEWS to FASS to playing guitar on the front steps of the MC – I've done because it seemed like a good idea at the time. While it might not generally be the best way to proceed, it's worked well enough for me. It seems like I get in trouble mostly when I stop and think about what I'm doing.

So that's it for me. This fall should see me in a Masters program somewhere else on the continent, so I'll probably not be gracing these pages much in the years to come. But by the Weak Axiom of Bitterness, I'm sure that y'all have not seen the last of me.

It's been fun. Be seeing you.

Matt "So-Krates" Walsh Editor F96, S97, W98, F98, W99



OK, so every other term or so we have this little blurb about what should and should not go in the BLACK BOX. And every now and then, someone puts something into the BLACK BOX that shouldn't be there.

Specifically: pretzels. When wheeling around the hallway collecting this week's submissions, I discovered a broken pretzel in the BLACK BOX. Upon reflection, I decided that just this once, I'd overlook the breach of etiquette.

And so we decided to consider it a cover art submission. While we received a much funnier (or at least less surreal) submission later, I'd like to thank the submitter for their efforts. Keep it up!

One More ACTSCI Club event — Pool Tournament!

Well, the end of lectures are fast approaching, which marks the near end of yet another term of events. I say near end because there is one more event to come... the end of term pool tournament. Find a partner and come out to have a great time! It will be held at the Fox and Pheasant at around 8:00pm on Tuesday March 30th. There are prizes to be given out so we haven't forgotten the competitive component... but hopefully not TOO competitive! Entries in the pool tournament are restricted to club members only! Come to the club office (MC3030) for more details.

I would also like to take this opportunity to congratulate 4 actuarial students who are here this term. The congrats go to Benny Wan, Neil Lamb, Edward Chiang, and Guru Singh. They were elected as this years ASNA delegates, so if you want to know more about ASNA, talk to them!

That is it from all of us on the executive committee. We had a great time this term and hope all of you found it enjoyable as well. Study hard for those upcoming exams. (I'm referring to both finals and SOA/CAS exams) Good luck on your upcoming work terms for those of you in co-op, and have a great summer to all!

> Albert Na, Publicity Director Actuarial Science Club

mathNEWS Filler?

Don't even know 'er

Submission of the Week

Matt the Editor

At the Threshold of a Whole New Life

A Farewell Article... For Now

inWhate Ibagi stange jould havit inagined. Alson interthisme an onexplidealea Ragress Nergilewa waldely: Oavitoistakes' baye anade Waterloo five years ago, and also a place that I will very likely call home in the very near future. An exciting job at an up-andcoming tech firm there is mine for the taking, and "carpe diem" is the order of the day. While I will always consider myself a proud Canadian, I can think of no better time to dive into this fast-paced, hectic place of ground-breaking technological development, if only so that years from now I'll be able to say, "I was there."

What seemed like a dream only a handful of years ago is fast becoming reality. In turn, memories of the rowdy events of Frosh Week, of that first walk down the halls of MC, seem almost like a dream now. It astounds me, the series of unlikely circumstances and events that have brought me to where, and who, I am today.

Take, for instance, this job that I've just landed. On the day of the course drop/add deadline this term, I decided to drop AI (CS486); the first couple weeks' lectures had failed to capture my interest, and the fact that they were at 8:30 in the morning only served as further dissuasion from continuing with the course. I needed a replacement course, and a friend from the computer graphics lab (CGL) recommended Splines (CS679). Getting into the course was straightforward, but there was an assignment due in three days, before the next class, and I had not been to a single lecture. Some drastic catching-up was in order...

Part of said assignment was to write a program to draw Bézier curves. As an extra feature in my program, I decided that the curves drawn should be antialiased. I experimented on how to do this and encountered some difficulty, but nonetheless I persisted and discovered that part of my problem was due to a bug in the driver for my computer's video card. There was no immediate solution from the manufacturer, but I found a simple, albeit slightly inefficient way to work around the problem.

Weeks passed, and new driver software versions for the video card didn't fix the problem. I sent a bug report to the company who made the graphics controller chip; no reply nor fix resulted. (It turns out that they did look at the report, but were unable to reproduce the conditions that led to the problem.) Looking around an unofficial news and support website, I stumbled upon the E-mail address of the engineer responsible for OpenGL drivers for the product that I used. I fingered his address, and reading through his .plan file I noticed that the company was looking for 3D software developers. It seemed like a pretty neat job, so I thought, "Why not?" and E-mailed him my résumé. (You can figure out the rest.)

In hindsight it looks so improbable: a last-minute course change led to a really cool Silicon Valley job. Granted, I may eventually have found my way there through an entirely different set of circumstances, but I never would have guessed that it would happen this way. In a *math*NEWS article I wrote almost a year ago, I expressed my firm belief in serendipity-making fortunate, chance discoveries. I can see no better affirmation of that belief than my own experience.

These past five years, and my life as a whole, have been a nonstop sequence of serendipitous experiences. True, not all these experiences have been happy ones; I've made many mistakes, hurt myself and others, and sometimes fallen very short of my me the person I am today, and without a doubt, that person is a much better one than the one who came here in Fall of '94.

I've never seen it advertised, nor have I ever heard it said on those Campus Day tours, but most of the learning that happens here at UW, I believe, occurs outside the classroom. I don't mean those late nights and early mornings spent slaving away on that CS coding assignment. "Growing up" is not a process that ends at age 19; it's a gradual and ongoing search for—and discovery of—purpose and identity.

The strangest thing is that it happens when I least expect it. In my darkest moments, it seemed like my life was going nowhere, like I would never be happy again. Then suddenly, I emerged on the other side, whole, not too scarred, unexpectedly well, and a slightly better person. Change, I have learned, is often frightening, sometimes painful, and most often beneficial only when seen in retrospect. Even what seem to be the most unfortunate circumstances may indirectly lead to the most happy resolution. It's like jumping into one of those giant waterslides without knowing where it will go; the best thing to do is to let it take you where it will, and deal with it when you get there.

I'm not much of a believer in "Fate"; so what is it that has "blessed" my life so? What's so special, so exceptional, and so unique about me that things seem to turn out so well? Very little, I believe; it happens to many people. The details of the story may vary, but if you learn to recognize it, a happy ending is not hard to find.

Looking back, I remember the many people who have brought me to this moment, and I know I owe them all a big "thank you". To those friends who have journeyed with me to this day, to those lost and left behind, and to those whom fate decided could no longer be with me today: I love you all. Thank you for all the encouragement and support; all the times you shared in my joy, and the times you lessened my grief; for shaking me out of my self-pity when that was what I needed; for making me see when I was wrong, and showing me the better way. Truly, I would not be here without you.

Finally, what have I learned? I can't tell you; that journey is yours alone to undertake... Besides, you would never believe me.

Viêt-Tâm Luu

ISSN 0705-0410

mathNEWS is normally a fortnightly publication funded by and responsible to the undergraduate math students of the University of Waterloo, as represented by the Mathematics Society of the University of Waterloo, hereafter referred to as MathSoc. mathNEWS is editorially independent of MathSoc. Content is the responsibility of the mathNEWS editors; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or math-NEWS. Current and back issues of mathNEWS are available electronically via the World Wide Web at http://www.mathnews.uwaterloo.ca/. Send your correspondence to: mathNEWS, MC3041, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1, or to userid math-

news@undergrad.math.uwaterloo.ca on the Internet. Can't believe we ate the whole rock: Matt Walsh, Greg Taylor, Chadwick Severn

profQUOTES

[Talking about having the flu] "I have so many chemicals in me right now, I could probably chop my hand off and not feel it... So, if I start to talk incoherently...well you probably won't realize the difference."

Buhr, CS 342

"Okay, you guys don't care and I don't really care either."

Chipman, STAT 230

"In this course, infinity is basically equal to 30."

Chipman, STAT 230

"Isn't it nice how all these words just roll off your tongue? I'm sure we could make up a naughty limerick for these if we wanted to. But, I don't know any naughty words."

Chipman, STAT 230

[Prof] "And this answer matches up with the back of the book."

[Student] "But didn't we forget to sum the terms?" [Prof (after fixing answer)] "There. Now it matches up with the back of the book."

Chipman, STAT 230

"Okay, saying this is easy is a bit of a stretch, hell, it's surprising we can even get an answer."

Chipman, STAT 230

"Even calculus requires you to draw... I'm not sure what else it requires though."

Cunningham, MATH 239

"And I'm running the class, so that's how it is."

Forrest, PM 354

"I discovered a really nice result this morning with my other class. I can put an unhappy face with these bad zeros [in the denominator]. I think this is a very nice result, actually."

Goodman, AM 373

"Hopefully, as you grow up, er, get older, you will come to love the shriek function as I do."

Goodman, ???

"Computers should be banned from university... the first 2-3 years at least... I'm in an anti-computer mood today ... My second year class can't add two numbers without pulling out a little black thing and pushing buttons. Multiplication is hopeless."

Goodman, AM 373

"This 'bra' has nothing to do with an article of clothing"

Goodman, AM 373

"I can imagine these isoclines getting together at night to make FOG look like a fool. What they don't know is that I don't mind looking like a fool."

Goodman, AM 250

[Prof] "This proof is eight pages long in the text book."
[Student] "Will it be on the final?"
[Prof] "Yes, It'll be question one."

Hare, MATH 247

[About a job-matching problem] "Some jobs are very hard and

some people are very stupid... oops, that wasn't a very good thing to say... some people aren't very well trained."

Kanappan, MATH 235

[Student — namely Dan Pollock] "Is it the same zero?" [Prof] "No, they're slightly different. One's twice the other you idiot"

MacLeish, STAT 240

"It's like those IQ tests you took when you were a kid, where you were given a sequence of numbers, say '1,2,...' and you said the next number was 4 and failed because your psychologist didn't know about powers of 2"

MacLeish, STAT 240

"Now that I'm done sucking up, I'll hand out these course evaluation sheets."

Pretti, CS 240

"All you need is one more hole and away you go!

Schellenburg, MATH 239

"I know I'm boring you to death. I can see people sleeping already... But that's the charm of this course."

Sidorowicz, CS 351

"Raise your hand if you want me to talk more about this? Everyone is asleep so I can go on, good..."

Biedl, CS 360

"Syntax Schmintax, that's what I say"

Vasiga, CS 246

"Are there any bright ideas? No, of course not. It's a Friday afternoon and it's forty minutes into the lecture. That's an impossible question to ask."

Willard, MATH 136

"This is what a football looks like." [brings out a round loaf of break] "I didn't have football so I brought a round loaf of bread."

Younger, MATH 126

"That's why they invented book covers... So they can print tiny trig formulas on them."

Zorzito, MATH 138

[After one of the blackboards in MC2066 fell] "We are now operating with three blackboards. I didn't break it, you saw, right?" Zorzito, MATH 138

[After trying to lift the broken blackboard again] "Oh! Bad Memory. If I was a rat I wouldn't train well...unless they gave me a raise, then I'd train better."

Zorzito, MATH 138

The Editors would like to thank the professors for making this page possible.

See, students do listen in class sometimes.

milk I had consumed just hours prior (hence the visit to the doc), I rotated on my heels in a drill serjeant-esque fashion and flung myself at the nearest armchair to commence the much ballyhooed yet strangely unsatisfying "waiting" portion of my waiting room visit.

As any good waiting room veteran should know, several magazines were scattered on the table in front of me. One caught my eye. Now, am I wrong or is "Hot, Hardcore French Housemaid Testimonials...Caught on Tape!" the WRONG way to package and market a respected medical periodical such as "Psychology Today?" Apparently not, as I quickly snapped up the magazine and went to my happy place.

As I sat there in the dry, vapid waiting room, flipping through the pages like a fiend, a particular blurb caught my eye. It offered suggestions as to when one is considered "mentally unstable" and when one is considered d "OK, and not likely to commit "random acts of destructive violence". The list included things like manic behaviour, suicidal tendencies, flinging rice cakes at unsuspecting senior citizens, etc. Yes, these are all valid forms of insanity. But a particular list entry caught my eye: "Nail biting".

Now, I don't consider myself "crazy", per se. Don't get me wrong, I'm no idle tigress. I can be a teetering-on-insane party machine with a few screws loose if given the proper medium (usually in the form of Pine-Sol Tile and Bath accidentally spilled into my rum'n'Crystal Pepsi). I mean sure, there was that wild night of sex/booze/drugs/graffiti/infinitesimal calculus that took place after "The Edison Twins" was cancelled. And nobody's really doubting my wildness on that one particular evening when we decided to raid the Cub Scouts evening cookout in protest of the inclusion of "Good Ol' Mountain Dew" to the standard campfire singsong repertoire (damned corporate America). And I don't really want to comment explicitly on my role in the Ponderosa Steak-House Brouhaha of 1987, but let it be known that it was merely a placeholder role and I was not directly involved with the Butter-O-Grams, the Chili Tossing Booth, or the nefarious Naked Mole Rat photograph. But I don't think I merit the title of "crazy", or even "slightly daring and spontaneous". I think "slightly wilder than reform-schoolimprisoned Chef Boyardee in his youth" would suit me best.

But let's clear the air. I am a Nail-Biter, and I'm almost not completely ashamed to admit it. I nibble. I chew. I bite. I tear that rigid protein buildup from my fingers, masticate slightly, and then spit it out with contempt. And isn't it ridiculous that such a tame and clearly economical practice such as nail nibblin' is frowned upon by medical higher-ups? You're darn tootin' it is.

"Why not use nail clippers?" you ask. Ahh, to the untrained eye, the nail chopper seems like a suitable device for cuticle cleanup purposes. however, they have the convenience of a pair of snowshoes at Sea World. I will not have two sharp pieces of rolled steel clamp down on any region of my anatomy without having paid a leather-clad bridesmaid for such a service rendered. Next question.

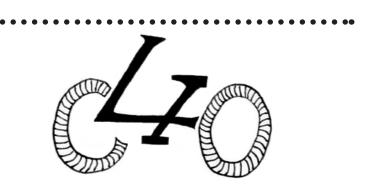
"What about manicure scissors?" I have determined, through exhaustive research trials, that manicure scissors are effectively useless for any purposes other than scaring away that guy in the office who always tries to steal your Wine Gums. They are clunky, difficult and boring to use (and yes, nail cutting can

span of two minutes to sper D: Tapanowski Avisibly instea and dmane should be on taxyiting rxhilerating meeting for and they definitely feeling the burn of the Echereschia Coli-ridden rat should be put to rest for good, alongside the melon baller (I milk I had concurred instead mean come on...who uses these things for any purposes other than sophomoric pranks on smelly roommates?

> So that leaves me with nail biting. I have been doing it since I was a young boy, and I don't see any end in sight. It's a way of life. I'm doing it right now as I type this article (I type with one hand). I do it during classes, sometimes intentionally right in front of the professor. If the professor did not see, I will often go to his/her office afterwards to demonstrate my nail-biting proficiency. Granted, I'm a bit of a showoff, seeing as how I can extract the stray portion of a standard-issue thumb nail in 2.43 seconds (still a record).

> But, is this to be considered "mentally unstable" behaviour. Well, judging by this article, the answer is yes. But if nothing else, I would like to see others, who are not yet in touch with their burning nail-biting passion, branch out and discover the free world. So next time you're chomping down on a nice piece of raw nail, think of those medicine-lovers who view you as "a crazed idiot". Think of the money you're saving, the dental benefits, and the sense of self-worth achieved by chewin' 'em down to the cuticles. Then, commit an act of random, destructive violence, to keep the doctors guessing.

> > Nick Taylor



Cycling for Opportunity

A group of students from the University of Waterloo has initiated a project called "Cycling for Opportunity". This project involves seven young men and women who will be cycling from Vancouver to Waterloo to raise awareness and money for third world education funds. The students, who are all graduating this year, view the tour as a way of contributing towards enabling access to higher education among students who would normally be deprived of such opportunities.

The project goal is to raise 4,500, one dollar per kilometer cycled. All proceeds will go towards "the Fair Opportunities Group" and "Escuela de Espanol Pop Wuj," two institutions with education bursary funds that disburse scholarships to underprivileged students in poverty-stricken neighbourhoods of Nicaragua and Guatemala.

Pledges are welcome. Please contact cyclingforopportunity@yahoo.com for more information about this project and its future fundraising activities.

Snuggles Sez

It's like Simon Sez, but with more senseless violence and gratuitous nudity, this article is rated SSS. No really, this is where I say stuff that I shouldn't say as President. So, I would like to officially say that this article only represents my personal views and reflects in no way upon MathSoc's views or the views I have as President. In fact, the opinions expressed below don't even really represent my views, they just present what I find funny.

Last week I said "make my day, ya feel lucky, pink, I mean punk, see the pink, punk thing next issue." Well, that was last issue, so here goes. A little while ago, on a Math239 assignment we were required to go from blue to pink changing one letter at a time but still having English words. Everyone else tried to do it very efficiently and in as few steps as possible. No, no, that isn't stylish. They didn't say we had to be efficient so, I tried to get as many dirty dirty words as I could think of in there. Here it is, if you don't like swearing go away.

blue, blur, slur, slut, slit, shit, shot, soot, foot, fort, port, porn, pork, dork, fork, cork, cock, lock, luck, fuck, suck, sunk, dunk, dung, dong, ding, dink, dick, pick, pink. Oh baby, 3/3 baby.

You see I have this theory about assignments. The people who mark them are verging on insanity after seeing the same bloody correct solution (or all the stupid people and their wrong solutions) and having to go over crazy proofs and attempts at part marks by people who have no clue. They get bored, they get irrated, they get downright mean. So I attempt to entertain my markers. I put amusing lines on the end of my proofs, like instead of QED (the three sweetest letters in the alphabet), put 'It's all good, QED'. Instead of skipping the obvious steps, include them, n=5, 5 is odd, therefore n is odd, QED. Talk about your T.A.'s mom. (I did a similar thing to above on a cyclic three letter one, fat, mat, mam, mom, tom, tot, tat, fat). Acknowledge random things, like the floor, for never disappearing. On my pink porn pork assignment I acknowledged people who actually helped, two certain people for being frosh, mathNEWS for letting me rant, Watt Malsh for not using too much editorial control over my rants, and for being an awesome tutor (he is a tutor in the course, butter is good, therefore buttering up is

better, QED), myself for doing the assignment, the marker for giving me marks, and Stu, no reason. So next time you are writing an assignment up, realize that your academic life is subject to the whims of a marker, so entertain them. And the next time you are marking my assignment, please have a sense of humour, I think I lost marks on my last assignment because my marker didn't have one. I'm going to complain, a proof that says it's all good is all good.

Well, this is the last mathNEWS of the term (or I'm going to have to write a mathNEWS while I'm on the other side of the country, cause I'm a smart person and am going away for 5 days at the end of classes) but don't fret, I'll be back. Oh screw it, I'll write articles in my off term as well, might as well, otherwise it would set my therapy back. At the end of last term in my Snuggles Sez equivalent (titles flowed from my unofficial slogan as Social last term) I said I'd return and I did. Actually I said:

"So you all must be asking yourselves if this is the last you'll see of the Snuggly Wonder. Fear not ye young souls who thirst for rants, raves, and randomness. I shall return next term (W99)."

So when I say I'll return you can believe me. Of course I also said:

'Sarah "Creator of our Universe" Kamal is talking to Natalie "Cat Woman" Thompson outside the office I'm writing this in, all I heard Sarah say was "foursome" and Chris "Mr. President" Buchanan and I were outside faster then you can say leather thong. Apparently she was talking of the summer exec, hmmmm, Summer of 69, I mean 99. I'll be sure to visit.'

Hmmm, I'll most definitely visit for some reasons (very punny).

Happy Snuggles - Collect the whole set

PS. How's this for a pickup line "You, me, a can of whipped cream, and some cherries on top" The only proper responses are Oomph or Quack.

Cynic's Corner

Well Tersed

Okay, there are two times when I should never write a column, when I'm tired and when I've been doing a lot of CS stuff. Both happened last time. Only one is true this time, so I'm going to keep it brief; thank me later. I think what I was getting at last issue was that you shouldn't do something just for the sake of doing it; and if I'd practiced what I preached I wouldn't have written anything. One wonders about the phrase "if it's worth doing, it's worth doing well". How true is it and how often is it applied? (Aside from in brain surgery and rocket science.) See how many examples you can find around the University. (In how classes are taught, how food is served, how our assignments are completed...)

Something mildly related to that is the difference between apathy (not caring about work), laziness (not wanting to do work), stupidity (not able to do work) and the category I can't think of a name for but in which one believes that it would be more productive to do different work (or nothing at all). One should take care not to substitute one case for the other as a means of justification. "I don't have a hope of passing course C: so I'll get drunk and fall out of a tree" is different than "I don't have a hope of passing course C: but I'll fall out of a tree and get a medical note to skip the exam" is different than "I don't have a hope of passing course C: so maybe I should try hitting my head" is different than "I don't have a hope of passing course C: so I'll study intoxication and forestry for my elective course". At least, they differ in principle. But note that productivity doesn't actually eliminate the possibility of fun too.

And that's it. I'm starting to think I should really jazz things up more if I want to keep doing a column, though for now you're just going to have to reread it and imagine saxophones playing in the background, okay? Hope everyone enjoys April and just to slip it in, all hail Mercury, goddess of love and exams.

Subscriptions!

Get your fix from afar!

Just think... you're off on a work-term... that long commute every day... sitting at your desk for seven hours... occasionally you hit a key... just can't wait to get back to school... or just get some semblance of U(W) school life back...

Well, here's your chance! Get a subscription to *math*NEWS, and every two weeks or so, you'll get a brand new issue in the mail! Bring it to work with you the next morning, and kick back and relax!

Is there a catch to this amazing scheme? You bet! You've got to fork over some money for postage. Brilliant, eh?

	Canada	US	Overseas
One term	\$7.50	\$10	\$15
One year *	\$20	\$25	\$35

This is the cost of **6** (per term) exciting issues of *math***NEWS**. All prices are in in Canadian funds. And if we happen to publish more than 6 issues, then you get them absolutely free!

* The "one year" indicates 3 terms that are not necessarily consecutive. That is, if you're at U(W) for the Winter 1999 term and off on a work term for the Spring 99 and Winter 2000 terms, then you could get a year subscription for Spring 99, Winter 2000 and Fall 2000. You could pick up the Fall 1999 and Spring 2000 issues in person!

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

Subscription forms (along with cash or cheque made out to *math***NEWS** can be dropped off at the *math***NEWS** office whenever one of us is around or slipped under the door when we're not. If you are mailing us a subscription form, please send it to the address listed in the ISSN along with your cheque. (F = September to December; W = January to April; S = May to August).

Your penny-pinching editors

	mathNEWS Subscription Form
Varrier	
Address to	Which to Mail Issues:
add of the	
ferms De	sired:
	simend: 9 2. FWS 19 3. FWS 20
Ferms Des . FWS	

mastHEAD

Not With a Bang

Greetings, all! Matt here, in my final *mast*HEAD ever. Well, the weather outside is frightful, but Structural Relativity is so delightful, or at least so some guy named Resnick seems to be suggesting in my current readings for Philosophy class. Not that I've seriously got any time to be caught up on my readings just now, given that this "tiny little issue" has blossomed into a 12-page bruiser of a *math*NEWS that we're just finishing up now, being Wednesday.

So I spent most of this weekend in Carl Pollock Hall, working on a video presentation in the engineering media editting room. The equipment there, by the way, just might be the first such equipment ever constructed, and it's certainly showing its age. But that's nearly here nor there. What's important, is that when I got there I noticed that the doors to the EngSoc Orifice were a little worse for wear, and that there was this impressive stack of bricks nearby. Curious. I found out later from a nice Kampus Kop who was running a patrol many hours later that some Engineering students from the University of Guelph had been by the previous night, and had *bricked up* the doors to the EngSoc Orifice. I was most impressed.

But that's the engineers' problem. Your problem is that you're about to read a big list of names. Seriously, I'd like to thank everyone who's come out and helped us this term with the newspaper, even if only for a single issue. We are, after all, a volunteer effort, and your contributions have made a big difference. Specifically, I'd like to thank the following people who made it out to this week's production night (well, most of them did, at any rate), who I now present to you along with their suggestions for what doors on campus should be bricked up by University of Guelph engineers: Viêt-Tâm Luu (4B CS, Needles Hall), Michael Thorsley (Grade 18 AM, MC 5162), Kevin Wan Min Kee (2A CS, Fire Escape), Stuart Pollock (NN Math, The tunnel from the 6th floor of the MC to the kitchen in REV), Derek Kisman (3N CS/PM, Random openings on the 6th floor), and Gigi Garbett (3N Psych, Any random door that's not mathNEWS). Donny Cheung (3N C&O/PM) and Jean Knetsch (2B English/Drama) also lent a hand at production night, but had nothing that they particularly wanted bricked up.

Thanks to Marion at Graphics for the issue and for letting me drag a camera through the back room, and to everyone who's made this issue possible. Great job, everyone. Bee seeing you,

Matt Walsh (4B C&O/PM, The doors to the PAC. While people are writing exams. ("Yes, Fortunado, for the love of God!")) Chadwick Severn (3 CS/JOURN, "RETURN-AIR SHAFT NO COMBUSTIBLE STORAGE ALLOWED") Greg Taylor (3B CS, The ones that say "Please use other door")

Math Thoughts

I was walking by the PMC, having a great day all around, when I looked inside and saw a puppy. The puppy barked. He said, "Hi, my name is Matrix!" After this, I went and got a cheesy bagel from the C+D, and came back to feed it to him. He was gone. No more matrices for me! Hee hee.

Flippin' the Bird

In a beer-fueled frenzy, we have spent innumerable hours scouring the UW Undergrad calendar for the fruitiest, juiciest, most jubilant concentrate on the market. We were blossoming young men on a tiger hunt, ducking and dodging through the deep, dark inner sanctums of the wretched parchment, in search of a beam of hope. We needed help.

We also need a bird course to take next term, and so we present our pearl of wisdom amidst a sea of rampant ignorance.

Pure Math 334

Introduction to Rings and Fields

Upon initial inspection by the untrained eye, one might thing "Chris and Nick have lost their minds!" Ha ha. No, no we haven't.

Let us dissect the course description, k?

First: the concept of "rings". Assume we have a functionally "slow" student named Van Lee. Poor Van is barely capable of rudimentary motor skills such as "left foot, right foot", the "airplane-to-the-hangar" method of food consumption, and the "white snow good, yellow snow bad" paradigm.

And yet, somehow, Van is able to observe that a "ring" merely represents the number zero. This seems to be a no-brainer. If a simpleton such as little Van can make this connection, then surely you, a Mathie, can too!

And, come on! "Fields"? Surely you jest. A field is empty! Have you ever seen a "full" field? Of course not, for it would no longer be a field, but rather a mountain, a geyser, or a rainforest. This glaring error makes itself more obvious in the winter terms, where our fields are covered in snow, making them even **more** empty... duh!

We can visualize the final examination looking something like this:

PMATH 334 Final Examination

NO CALCULATORS PERMITTED

- 1. A ring is equal to _____ (Hint: think "doughnuts") [5 marks]
- 7. A field is: 1. empty
- 2. null set
- 3. not empty
- 4. П*e*
- 5. A triangular road sign
- 6. Grandpa's beer-stained armchair

[10 marks]

BONUS: If you dropped a ring while frolicking in a field, would it make a sound? (Note: we strongly recommend attempting this more challenging problem only upon completion and verification of the remainder of the examination)

Is that easy? Does Condor Man wear yellow? Rest assured, the answer to both questions is a resounding "yes".

We ponder the university's commitment to "higher education" with such pompous and smug offerings such as the insipid, blasphemous PMATH 334.

We look forward to enrolling in PMATH 334, and fervently anticipate a final mark of "1 ring ring%". That's 100%, and if you didn't know, your ass better CALL somebody.

> Chris "Rodeo Clown" Downs "Succa" Nick Taylor

lookAHEAD

mathNEWS	
March 26	Issue #6 makes waves
Miscellaneous	
April 1	Last day of classes
April 6	Last day of electives
April 8	ELPE writing
April 9	Exams begin
April 16	Exams middle
April 23	Exams end

Answers to Spermatikos Logos #6

Puzzle elsewhere in ish!

"səvod fəəw2" :gno2 Performer: The Mics Food: Raw veggies Name: Rebecca 0 rder 6 "uoY ethe Breathe You" Peformer: Whitney Brooks Food: Mushrooms Vame: Ronald Order 5 Song: "Funky Friend Medina" Performer: Celine Houston Food: Chicken wings Name: Ruth ₽ JebrO "nO oo IliW bloo yM" :gno? Performer: Euryth Dion Food: Poutine Name: Rubin Order 3 Song: "Hearts In Low Places" Performer: Tone Police Food: Onion Rings Vame: Kobert Order 2 Song: "Every Dream You Take" Performer: Garth Loc Food: Nachos Name: Rachel Order 1

Spermatikos Logos #6

Hows worken hear which the constraints in the last sweet hear work of thear work of the last sweet hear work of th

Answers to Last Week's Puzzle

- March 9 Andrew Xilli, Cathy Zorralot
- March 11 Cathy Xilli
- March 12 David Xilli
- March 15 Andrew Yormann, Becky Zorralot
- March 16 Andrew Wanderoff, Cathy Wanderoff
- March 17 Andrew Zorralot
- March 19 Becky Xilli
- March 22 David Yormann
- March 23 Becky Yormann, David Wanderoff
- March 25 Cathy Yormann, David Zorralot
- March 26 Becky Wanderoff

This Week's Puzzle – Winter is Fun, Part IV

Last weekend, a bunch of friends decided to get together and relieve some stress by Karaokeing. They each sang a different song (one is "Funky Friend Medina") and ordered a different type of food to eat while waiting for their turn to go onstage. Can you match each person's name (the girls are Rachel, Rebecca, and Ruth; the guys are Robert, Ronald, and Rubin) with the food they ordered, the song they sang, the star who performs that song (one is Whitney Brooks), and the order in which each person sings (or garbles, whichever you prefer to call it). The answer, when you're done, is somewhere in this issue of *math*NEWS.

- 1. The six people are (in no particular order) Ruth, the nachos eater, the person who sang The Mics' song, Robert, the person who sang third, and the person who sang "I Will Always Breathe You".
- 2. Rebecca left to make a phone call during Euryth Dion's song "My Cold Will Go On".
- 3. "Sweet Loves" was sung after Celine Houston's song, which was sung after Rubin did his piece.
- 4. The guy who ordered the onion rings sang immediately after Rachel (who was not second), and before the person who ate the chicken wings.
- 5. "Funky Friend Medina" is not a Whitney Brooks song, and was not sung by Ronald (who ordered the fried mushrooms).
- 6. The person who sang the Euryth Dion song shared their poutine with Robert, who sang before him and has a big appetite.
- 7. The person who did the Tone Police song was rather tone deaf, and consoled themselves with their onion rings.
- 8. The girl who sang the Garth Loc song (which is not "Hearts in Low Places") did not order either the raw veggies or the chicken wings.

- - 10. The person who sang The Mics' song (which is not "Funky Friend Medina") went onstage two songs after the girl who ordered the chicken wings.
 - 11. The person who sang "Sweet Loves" couldn't finish all the raw veggies, and offered them to Robert and Rachel.
 - 12. "Every Dream You Take" is not a Tone Police song. Neither is the song that was done fourth.
 - 13. The person who ordered the poutine (not Ruth) sang immediately after the person who got the crowd dancing to "Hearts in Low Places".

Gigi Garbett

Top 18 Signs You Watch Too Much Professional Wrestling

- 18. You own and operate your own fantasy wrestling league
- 17. You wonder why the Brood's theme music has never hit the top 10
- 16. You get into a fight and try to give them a DDT or elbowdrop
- 15. You scour the adult video stores looking for a porno starring Val Vanis
- 14. You feel sorry for Dustin Runnels and Marc Meio because they lost their wives
- You had a girlfriend, yet still watched the WWF PPV on St. Valentine's Day
- 12. You can't get hired because you insist on not "doing the job" for anyone
- 11. You sent a letter to your favourite wrestler asking to be their manager
- 10. You plan on voting for Hollywood Hogan in the next Presidential Election
- 9. You don't sleep, you job to your blankets
- 8. You have ever used the phrase "Roody-Poo Candy Ass Jabroni"
- 7. You have ever bet money on the outcome of a match
- 6. Whenever you get upset at someone you point to your crotch and yell "Suck It!"
- 5. You own any movies starring Hulk Hogan or Roddy Piper (exception: Rocky III)
- 4. You can't fall asleep until someone power bombs you into bed
- 3. You scour the Bible looking for the fabled "Austin 3:16" verse
- 2. You can't get laid because you "won't lay down for anybody"
- 1. You try to kickout during sex

Corey "Icor the Icon" Gaudette

This Just In!

Be on the lookout for a mathNEWS newsprint issue early next term

mathNEWSquiz #6

Spring Is Here The End Is Near

Hey, there, everybody! As I write this, snow is blowing around us once again, The respite we received from winter was all too brief and Waterloo is once again a frozen wasteland. It seems, though, as the relatively foul weather we're having has kept everybody from submitting solutions to the squiz. We got no submissions whatsoever!

Well, that was enough ranting. Here are the solutions to questions from last issue: **Song Lyrics**: 1) Metallica, Disposable Heroes; 2) Black Sabbath, War Pigs; 3) R.E.M., Orange Crush; 4) Rush, Manhattan Project; 5) U2, Sunday Bloody Sunday; the theme, of course, is war; **Stanley Kubrick**: 1) July 26; 2) Mandrake, the president and Dr. Strangelove himself; 3) The last chapter of the book is left out in the film; 4) Spartacus; 5) Full Metal Jacket; **NCAA Basketball**: 1) Utah Utes; 2) Cal-State Fullerton was not in the American West; 3) Yale; 4) Temple; 5) Bulldogs; **Stompin' Tom**: 1) Leamington, Ontario; 2) Joseph Montferrand; 3) A "Newfie"; 4) St. John, New Brunswick; 5) When he hears the word "Tillsonburg".

Here are the questions for this issue's squiz:

Song Lyrics

Give the title and band for one point apiece

- 1. "Across the River Styx, out of the lamplight His nemesis is waiting at the gate"
- 2. "The circle is broken Now there's more than just one And there's room to move Where before there was none"
- "People can't understand my situation Now they're caught up in a Soul Assassination"
- 4. "Well, I don't know how To tell the weight of the sun And of mathematics Well, I want none"
- 5. "Broken bottles under children's feet Bodies strewn across a dead end street"

Math

- 1. What mathematical physicist compiled the mechanics of his day into a collection of knowledge now called "Newtonian Mechanics"?
- 2. Who first conceived of the "Witch Of Agnesi"?
- 3. What city, founded by Alexander the Great, contained a "Great Library" which housed much of the world's knowledge (including mathematics) when it was burned down by Christians?
- 4. Who developed "MacLaurin Series"?
- 5. Gauss' doctoral thesis was the first satisfactory proof to a theorem very fundamental to algebra. What is this theorem?

Jeopardy

I give you the answer

you give me the question

- 1. Monica Lewinski, a cigar, and Steve "Flipper" Shaw.
- 2. Chickens, handcuffs, and live wire.
- 3. Monica Handcuffs, live chickens, and a dolphin named "Matilda".
- 4. Jenny McCarthy in lingerie.

5. Jerry Seinfeld in lingerie.

Potpourri

- 1. How much wood would a woodchuck chuck if a woodchuck could chuck wood?
- 2. How many angels can dance on the head of a pin?
- 3. Why?
- 4. Who knows?
- 5. Who cares?

Good luck, everybody! Unfortunately, since this is the last issue of the term, we won't be giving out squizprizes for this issue. All the same, I think that you will probably find this squiz to be relatively simple. Have fun!

> John "The Pseudo-Expert" Swan "Disco Stu" Pollock

Campus Day '99 Volunteers

You did an exceptional job! With your help, Campus Day was a huge success!!

** THANK YOU **

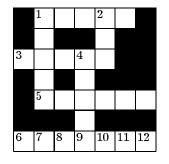
NOTES AND THE Annal Anto Ante Antoneertik OF DE PREMIERZ Assos Amory eoria Aanaraho a Artes **Anity Service** And Inguis oc Moru Alter friends main Semicarde Christian Remote Anne Jenninette LANT ANOTHER Jan Antr Anna Carren riarda Carolia States Criefs SEN CANHON 1050 1167 Dominal Chroni Colorent Chieve Ken L'hernè use canalt Anjhany Gre Nerske Cessiages Divisi Division? ROMAN INST LANUS AN INSPECT ezir Anakim Galilio Especific Anton Related lina (Itspeciala Walkers' From NINCE INFORMED Selandrive Alma tany Grove Eart Stor Parque danks гесская намы Natikes: Association Line Norper Nextha Varris Mary He Anthe ware Correspondences Katt' Plans

Die Destaue -----CARLES (DATE JAMES INTRODUCED Alexand' Kabusi Samely Alexand Jahos Kamin losha shenel lande and Малт Хуврарьанов Harak Kone Flowert Ambrid HARL COMPANY Леуан гас Attest Land Joseff Libertak Animals class **Surrent Lie** асьесся см ile joht Jany's op Las Constyle Machines Jam Master I was made Net Marphael AwX Harpo Janither Middle HAMMIN HOUSE NAME AND INCOME. мараданичара выдая energianet esidenti Onesser Milling Grap Horay Fuel MonkolnNe DEF Mond DEPOSE MANTHE allo avant Ant Atempt One Picelle Aut Olderer Zoos Pasiek Artic Polers Alla Arthypere Jan Peloth Ин лөгөө alasa Peles Hary Anim Zatelek Fee Jawas Kampersud

льдугу каринд ers enjoyant Johnim Rama Acre Women New Acases MONRY RIVE Ald Semanor Pleaser Southing Net: Same Artes Schwer Colline SCP vol 12 WHERE SHOP a keh Analar Shine Izaka Jén Service: Silver Stickup INGUAN SWAMENING SEMAN 9/7490 Analy while availy to Geographic Parria M Amender St. Am Ann Stewart Breakpa Starme de ne CAND HANGO undi Marka MINE AGAIN JOION DELEVIT Garry: Dates flows flowing etert Zowiet Minuted Taxag Sectory carding BORNE ADDRESS MONIN' KING statt Wash Gen Water 15.05 93:05 denve Wilder CONTRACT HOME Janes Hang Macord Wore Odvilley Tax APR 148 Nyana Yanng New Disease

If you helped and your name isn't on this list, we sincerely apologize. Please send a note to ggoodfet@math, so that we can property recognize you.





Grid Clues (Personal Satisfaction)

Across

- 1. Females (5)
- 3. Gained knowledge (5)
- 5. To ruin hearing (6)

Down

- 1. Strange (5)
- 2. Luxury ship (3)
- 4. Cutting utensil (4)

Letter to the Editor

On March 17th, I was enjoying the atmosphere of the oncampus pub "The Bombshelter" when I was suddenly accosted by two large men, lit on fire, and made to eat raw rhinoceros flesh. All of this right in front of my friends and girlfriend of two years.

Why must we live in a society where people are lit on fire and made to eat raw rhinoceros flesh? Why can we not respect the beliefs of others? For example, I believe rhinoceros is gamey, chewy, and relatively tasteless. Why then, must I be made to eat raw rhino?

In addition, strait-jacketed clowns attacked my brother and made him buy seven copies of "Tae-Bo". They also whispered poetry into his ear, including the famous line: "Spontaneously the ground climbs to peel an ear of the heart". This, obviously, caused my brother to go insane and paint a brick wall full of monkeys.

Where were the Bombshelter's security staff at this time? Creating goosefeathers out of a black box located on the sixth floor of the Physics building! I cannot believe the sad state of affairs at the University of Waterloo, and the fact that no one cares about them at all. That's the last time I go to the Bombshelter, except for St. Paddy's Day (and some assorted Wednesdays).

> Respectfully, Moe G. Candomble

*grid*COMMENTS

Well, I received one whopping submission this time. You love me! You really love me!! I swear, it's the support you guys give me that make this job worthwhile.

Those of you hugging yourselves and feeling good about having not submitted anything should now turn on your Sarcasm Geiger Counters, 'cause you're soaking up the Rads. It's the last issue of the season, I'm blowin' this lousy tabloid, and I don't have to say nothing nice about nobody no more. You all suck and your mothers dress you funny. Compared to you guys, even GridSlave Donny seems somewhat less objectionable.

Anyway, now that I've got all that off my chest, Dave Bailey and Claude Lepage (hereafter referred to as the Dynamic Duo) together submitted a 100% correct solution to last issue's Grid-Word. Congrats! So, by an incredibly random process involving 36 hours of Cray computing time, I've found an integer totally randomly distributed between 1 and 1 (inclusive). Looks like the Dynamic Duo wins! They can pick up their FABulous prize next time they're in Waterloo.

Well, I guess this is it. Pardon the wet page; I'm sobbing on the keyboard as we speak. But just so you don't go away completely empty-handed, Donny will be spewing out a no doubt, um, revolutionary GridWord for you to scorn. Feel free to hate it, and hate him by association.

Derek Kisman

Okay, so you guys didn't like the Cynical GridWord. Well, here's a crossword I call the Personal Satisfaction GridWord. It means that if you do it, you get Personal Satisfaction. And that's all you get. No prizes, no fame, no fortune, no scantily clad, oppositely sexed worshippers at your feet, adoring the very ground you walk on, hanging yearningly on every melodic word which leaves your gentle lips, whispering ageless poetry in your left ear and mellifluous symphonies in your right. Nope, none of that. Just Personal Satisfaction. Oh, and Derek offers to jump out of the cake at your next birthday party. (Warning: may or may not be armed.)

Well enjoy the GridWord! (Derek wants me to proofread it first, but man, I'm just too damn lazy, so I'll put a little disclaimer here.)

Donny	Cheung
-------	--------

