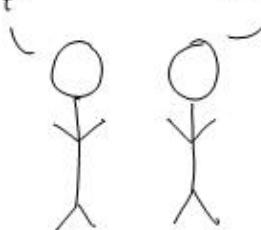


math NEWS

DECISION PROBLEMS

THIS SHOULD BE IN P

BUT IS IT POLY-TIME COMPUTABLE
IN GENERAL? WHAT IF VEGETA
ISN'T AROUND?



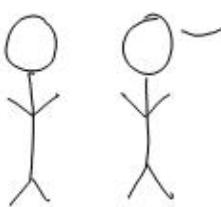
IS IT OVER 9000?

DEFINITELY NP-HARD... MY FRIENDS
COULDN'T AGREE IF THAT WAITRESS
WAS HOT LAST NIGHT.

BUT WHAT IF IT'S LIKE,
ANGELINA JOLIE?

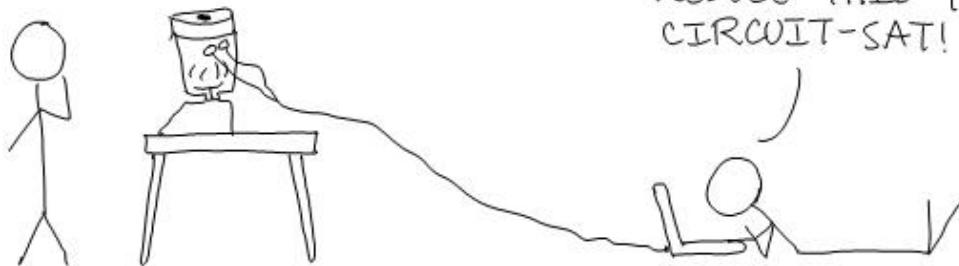
STILL NOT POLY-TIME
IN GENERAL.

TOUCHÉ



HOT OR NOT?

I THINK WE CAN
REDUCE THIS TO
CIRCUIT-SAT!



WILL IT BLEND?

Snippet

**Volume 110, Issue 1
Friday, May 15th, 2009**



lookAHEAD

mathNEWS

May 15 Sharing contaminated mathNEWS issues causes swine flu

MathSoc

May 15 Applications for directorships and Class Reps close

Math Faculty

Questions about these? See an Academic Advisor

May 25 Math faculty declares mathNEWS totally awesome

CECS

Ongoing CECS remains firm on their decision that mathNEWS writing is not a valid co-op placement

Miscellaneous

May 18 Victoria Day

May 24 NOT Victoria Day

mastHEAD

Dear Summer Students,

So, you, like me, must be here for a reason. Maybe to pick up a few extra courses, maybe because you're in co-op, or maybe, just maybe, your parents don't love you anymore. In my case, my parents discovered that children, like pets, get less enjoyable as they age.

Well, summer's here and so are those god-forsaken geese with goslings. I don't know why people think goslings are so wonderful. They are going to grow up to be just as unpleasant as their parents. On top of that, the elder geese become even more aggressive, viewing everyone, football player to small Asian girl, as the biggest threat of their lives.

I've already noticed that taking a distance education course this term was a very bad idea, totally incompatible with the nature of summer. They should have a warning in the course description along the lines of "One cannot work on this course while playing soccer outside..."

"Especially when there are geese roaming the field."

Lastly, I'm stuck here, in a windowless room in the MC, hunched over a keyboard, writing for and later editing a newsletter that has stopped reporting news long before I got to Waterloo. Well, some people have interesting lives. For everyone else, there's *mathNEWS*.

Our *mastHEAD* question this edition was "*Why are you here?*" invoking responses like "My parents had insanely epic sex." (inXSE) "Protesting being commanded to draw the cover by producing the most vomit-worthy cover possible." (snippet) "The voices, they are calling..." (Nadz) "It was either run the Markov Chain bot or not eat." (42) "~A~;" (o_o) "To serve the king." (The Hee Ho) "The hunger. It require brains!" (RamEd) "Kleptomania." ()-squared) "Free food. Why else?" (Angelo)

ImplusEd

Various Other Animal Flus

Like animal crackers, except slightly less delicious

Swine Flu: Currently the most heavily reported type of flu, which seems to affect pigs and Mexicans.

Avian Flu: A previous popular flu, causing panic in the poultry population across the world.

Goose Flu: A flu that, sadly, has yet to affect the region of Kitchener-Waterloo.

Mongoose Flu: A hybrid flu combining the voracity of geese and sheer unpleasantness of the Mongol hordes.

Beaver Flu: Symptoms include being abnormally attracted to bullets.

Swan Flu: May cause dyslexia.

Moose Flu: Need I say more?

ImplusEd

Prez Says: We Have Summer!

Oh, and we have Exec, too

Hello hello fellow Mathies! Finally, the campus is warmer (I think), cleaner (I hope), and has less artsies! (I joke... sad face) Starting out this Spring term, we have a full set of MathSoc Exec who are already working to bring you lots of exciting events! Remember that Pi Approximation day is 22/7, June 7th! But in order to get all this done, we need help from lots of student volunteers. If you're reading this and Friday isn't over yet, then Director and Class Rep nominations are still open. Grab a form outside the MathSoc Office (MC3038) and drop it off inside the office!

This is the term to get involved - come out to our social events, become a Director or Class Rep, join a club, or just drop by the office to meet some new people, play some games, and relax from all that classwork!

Prez Nadz

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 *mathNEWS*. 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*, MC3046, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1, or to user id *mathnews@student.math.uwaterloo.ca* on the Internet.

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The editor(s): Sunshine, Lollipops, and Rainbows: John Stevenson, John Baxter, and Rami Finkelstein

mathFLUS

Causing even more panic than InsidED laughing

- **CS Flu:** Did you wash your hands after touching that keyboard in the Unix lab? Didn't think so.
- **ActSci Flu:** Symptoms are extreme boredom and dreaming about the probability of your own death being assessed for life insurance purposes.
- **C&O Flu:** Even though you analyzed that viral-flow graph to see how long it would take to reach you, you still lost. Symptoms include trying to count how many ways the flu could have reached you.
- **AMath Flu:** Nice try, but taking the Inverse Laplace transform of yourself does not provide any resistance to viral infections.
- **PMath Flu:** Inventing your own nonsensical form of number theory to prove you won't get infected is about as useful as licking shared surfaces (e.g. doorknobs, C&D tables, couches in the comfy).
- **Stats Flu:** Have you touched your STAT 231 course notes lately? It's too late now.
- **SE Flu:** Getting a BSE doesn't mean what you think it means. (Hint: BSE also stands for Bovine Spongiform Encephalopathy, AKA Mad Cow Disease)
- **CM Flu:** You've caught a highly resistant strain combining elements of both the AMath Flu and the CS Flu. There is no hope for you now.
- **DD Flu:** Don't worry about them, they've all been quarantined to prevent it from spreading to here from Laurier.

snippet

Interesting Math

Supertask

I begin with the classical Zeno's paradox of motion. Zeno claimed motion was impossible, for to move from point A to point B, we would first have to traverse half the distance from A to B. Then to get from this midpoint to B, we must traverse half of *this* distance, and so forth. So after every step, there is still another step to complete, hence we can never finish. That is, we can never arrive at point B. It follows that motion is impossible. Of course, this sounds absurd, and most of us would argue that motion does indeed exist as infinitely many steps does not preclude the overall action from being executable. We would know this from limits in calculus; the infinite sum of $1/2^n = 1$ exists so the entire series of steps can be completed.

Let us now consider a lamp, with a light switch. Say it begins turned off. Suppose we toggle the switch after $1/2$ minutes, after another $1/4$ minutes, after another $1/8$ minutes, and so forth, so that we toggle the switch at $(2^n - 1)/2^n$ minutes for each n . What is the state of the lamp after 1 minute? Notice the toggling process ends by now, since the sum of $1/2^n$ gives 1. The lamp could not be on, for in our algorithm, we never turn the lamp on without turning it back off in the next step. Likewise, the lamp could not be off, for we never turn the lamp off without turning it back on in the next step.

What's going on? Let us notate the $1/2$ minute mark by t_1 , the $3/4$ minute mark by t_2 , and in general, the $(2^n - 1)/2^n$ minute mark by t_n . The problem rests in that we only act on the lamp at the points t_n , so we can only make deductions about these instants of time. That is, we cannot use our construction arguments at the 1 minute mark. We can only say that the lamp will either be on or off and not both at 1 minute, but we cannot say which. Schrodinger's cat, anyone?

Vince's problems of the issue: Let T be the 1-d torus, i.e. the unit circle. We may consider T as a group under multiplication.

1) Suppose G is an infinite subgroup of T. Must G be dense in T?

2) Suppose G is a measurable proper subgroup of T. Must G have zero measure?

Vince Chan

v2chan@student.math.uwaterloo.ca

An Alarming Truth

Not with compliance
Take any test. Though shalt not sit
With statisticians nor commit
A social science.
Thou shalt not be on friendly terms
With guys in advertising firm,
Nor speak with such
As read the Bible for its prose,
Nor, above all, make love to those
Who wash too much.
Though shalt not live within they means
Nor on plain water and raw greens.
If though must choose
Between the chances, choose the odd;
Read *The New Yorker*, trust in God;
And take short views.

It has been recently brought to my attention that the inner workings of the Mathematics Society have been unlikely scrutinized, and the transparency process of its preceedings has been questioned in details. To that end, it is now my pleasure to bring to your attention a controversial piece of literature that has been adopted as the **Creed of the Mathematics Society** since its first publication by W. H. Auden in the 1930s. Published here for your pleasure, and sarcastic reading exercise. Enjoy. And remember, do not shoot the messengEAAAAAAAH!

Thou shalt not do as the dean pleases,
Thou shalt not write thy doctor's thesis
On education,
Thou shalt not worship projects nor
Shalt thou or thine bow down before
Administration.
Thou shalt not answer questionnaires
Or quizzes upon World-Affairs

Yours frightfully, 37

Horroscopes

Swine flu and SE take over!

ACCOUNTING: You shouldn't skip that upcoming lecture on ethics. Shady accounting practices will result in your arraignment for fraud. While on the witness stand, you attempt a joke about how you can't "account" for what happened — but fail miserably. The court finds you guilty of aggravated murder for butchering that joke, and you cry every night for the next twenty years.

Your lucky number: \$2,000 bail.

AMATH: Chanting advanced theorems, you conjure a girlfriend from the aether. She asks you to hold her and you become flustered. You attempt to integrate to find the area under her curves, but she is kidnapped by the binary Goldbach conjecture. After a lifetime of searching, you prove the conjecture false. No sooner is your girlfriend returned than you wake up in the Comfy, alone.

Your lucky number: 60 years of false memories.

BBA/BMATH: The weak economic situation continues to deteriorate, and you graduate at the height of the anti-businesspeople movement. Warren Buffet has been found hiding in a hole in Iraq and has been hanged by an angry mob. You flee to a central African country to start a new capitalist empire.

Your lucky number: A \$20 trillion deficit.

C&O: You die, and Professor Haxell meets you at the Pearly Gates. To prove your worth, you are given a connected graph of all Heaven's Starbucks and told to prove that it's bipartite. Since the graph is infinite, you can't check for odd cycles. You spend eternity attempting to remember what a perfect graph is.

Your lucky number: 2-coloring.

CS: You devise an algorithm to combat swine flu. It goes as follows:

1. Find a cure.
2. Eradicate swine flu.
3. Profit!

Your lucky number: 7 billion lives saved.

MATHBUS: You want to be an entrepreneur, but you have no good ideas for a business. You decide the most cost-effective idea producer is an artsie, whom you hire at minimum wage. After 3 days and a dozen pizzas, the artsie has an idea: Water. You immediately buy all the bottled water you can and dump arsenic into the water supply. You try to sell the water to an undercover police officer, who performs a strip-search tease.

Your lucky number: 3 hulking cellmates.

MATHSCI: Confused political science students wander into one of your classes, befuddled by the similarity between "MATHSCI" and "POLISCI". You go through your times tables in your heads, hoping they go away. Instead, they form strong opinions about your body odour and begin a heated debate. Distracted, you forget to hand in an assignment and fail the course.

Your lucky number: However many political scientists it takes to screw in a lightbulb.

PMATH: Shocked by the removal of calculus from high school, you decide to become a high school math teacher and sneak in your pure math. Pure as new snow. You reason that pure math wasn't good for anything else, anyways. After teacher's college, you start teaching, only to realize that the students have become Morlocks.

Your lucky number: \$40,000 in wasted MathSoc fees.

SOFTENG: You take over *mathNEWS*, but that's just the beginning. Soon you hack into the power grid and force the Prime Minister's hand: he declares it illegal for anyone you ask out to decline. The Nanos attack and, as you dissolve into grey goo, you realize that unconditional love isn't really love at all.

Your lucky number: $i++$

STAT: You calculate that the probability of getting laid tonight is approximately the same as the probability of contracting swine flu. You head to a swine bar and chat up a storm with an attractive sow. You go back to her place, but are turned off by the manure. Remembering that you forgot to call your mom on Mother's Day, you leave in tears.

Your lucky number: 50 worst dates.

UNDECLARED: Your boyfriend offers to take you out to dinner, and tells you to pick a place. But you can't decide. After changing your mind the fourth time, he tells you to just pick a place and stick with it. Embarrassed, you hastily point to a burger joint and say, "There." Your boyfriend hates that place and dumps you.

Your lucky number: 7. No, 4. Wait, 312. Dammit, do I have to choose right now?

AHS: You make it your personal mission to remind the public that properly cooked pork cannot infect you with swine flu. You end up making pork chops with Rachel Ray and your career as a cook is born. Your restaurant achieves a respectable four-star rating before becoming infested with cockroaches. Seven fumigations later, you accept a job from the cockroaches in order to pay the bills.

Your lucky number: 350 degrees Fahrenheit.

ARTS: You graduate with a degree in Independent Studies. You are poor and live in a box, but at least you never missed a pubcrawl. The raccoons who forage through garbage with you begin to plot against you, and your stash of hot dogs goes missing. You begin to hallucinate and see David Hasselhoff dancing on a fire escape.

Your lucky number: 3 PSYCH courses, 4 ENGL courses, ...

ENG: You design a bridge to span Columbia Lake, but near the end of construction it collapses and kills a Canada goose. The PEO launches a smear campaign against you and revokes your licence. You learn French, move to Quebec and join the OIQ, but fail to grow a curly moustache. When your children grow up, they learn the truth about you and disown you.

Your lucky number: 36 Newton-metres.

ES: You become enraged at the slaughter of sickly pigs and catch a redeye to Mexico. You chain yourself to a pig, declaring an undying love for your porcine compatriots. Without warning, BSE jumps to swine, and then you become the first human to catch Mad Hog Disease. Your organs are donated to Science.

Your lucky number: 0 pigs saved.

SCI: Your BIOL 342 prof is arrested, and it comes out that she “accidentally” created swine flu while experimenting with bird flu. You use the spare time to clone yourself. To your horror, the clone grows up to be a young-Earth creationist. You retire to the island of Dr. Moreau and try to create your own Jurassic Park.

Your lucky number: 65 million wasted years.

inXSE

Porno

To the tune of The Watchmen's “Stereo”

My life is a porno, how long do I go?
What moves do I know? What ever happened to my pants?
Whatever happened to the clothing that I once had?

My life is a porno, kinda cheaply made, though.
How bad does she blow? Whatever did become of all my hoes?
Whatever happened to the likes of all of those?

My life is a porno, turn me on and let's go.
Turn me on better, you'll scream my name as loud as you can scream
And if you like what you're feeling, please hang on to me.

Chorus

Oh, I like being here
And I'm all hung so long
Hang on to me, I'm done in a minute!
Done in a minute! Done in a minute!
Please hang on to me.

My life is a porno, kinda corny taste, though
60 bimbos humming, whatever happened to my clothes?
Whatever happened to the money shot I had?

Chorus

And my dong is like candles
I'm so afraid of new pornography
I'm in her legs and I really want to be
Yeah I'm so afraid of what's the new disease
I'm in her legs and I do, I really want to be

Life ends like a porno, clean me up and let's go
Touch me anywhere, please don't think of leaving me naked
Whatever happens to you, I'll get off just fine.

I'm done in a minute.
(Repeat until end)

Actually ashamed of himself for this,
Angelo

How Deans Get Their Salary

These days, people are pinching their pennies to survive the tough economic times. *mathNEWS* is no exception. We've even sought sponsorship from several “quality” products that we feel will also help you save your money. This edition of *mathNEWS* is brought to you by:

ronerygirr15



Come Behind My Firewall

When you first pinged me, I was unsure whether I should respond to your queries. I was unable to verify your signature and was told by Zero Knowledge that your intentions were malicious. Despite this, the sheer unrelenting nature of your communique overwhelmed me and forced my firewall to allow your commands access to my kernel.

You quickly filled my clock cycles with idle fantasies. When I first allowed you local access to my box, the sensation of your real mode extended instructions on my bare metal was electrifying. I never knew which mode you left me in, whether segment protection was turned on or not. The tingle of your pointer moving up and down my stack prompted me to switch to paging protected mode, so I could allocate enough room on the heap for all your structs.

When you first began your depth first search of my root directory, I almost panicked. Your huge input could barely fit in my cache. The relentless probing of my ports prompted me to throw SIGSEGV to my userspace firewall, forcing it to go down when confronted with this critical signal, letting all your packets through to layer 7. The TTL on your packets kept decreasing, but they continued to make it through unimpeded until at last you achieved your climactic milestone and deployed your package upstream. The torrent of data overflowed my buffer, dropping all over the floor. I can't wait for the next time you enter your login.

My love for you will never time out,

Ada

P.S. I missed my realtime deadline... will you allocate system resources if I spawn a process?

Hat-Guy
Darling Euler

Back in Orange

Cue AC/DC Music, and... go!

Hey everyone. So good news, I'm back from coop! I'm writing for **mathNEWS** again. Did you miss me?

This time I decided to do something different. My psychiatrist advised me against doing more "random thoughts" pieces, because apparently randomness is hurting my mentality and just supporting my dual-bipolar-psychotic-personality disorder. So instead, you'll get sections of my all-new stand-up comedy routine!

On that matter, if you like what you read, or you're just bored, I've got something for you to do, start pressuring MathSoc to promote a sponsored Stand-up night featuring Orange Crush Live! How awesome would that be? My conditions are simple, there's got to be pizza for everyone. I also suggest charging a few bucks for tickets, and the money can be donated for charity. And a good charity of my choice, something that actually supports people who need help, like the Canadian Cancer Society, or Laurier. Anyway, here's the funny stuff.

We'll start with a funny story that happened to a friend of mine. He's a bit stupid, and he's also homosexual, although I'm not claiming the two are related. It's just a coincidence, ok? So anyway, he was pretty distressed at first after he told some people he was gay, so I advised him to come out of the closet.

So a few days later he calls me and asks me to bail him out of jail.

He says, "I did just what you said man, I came out of a closet. But then this little boy started screaming 'mommy, there's a strange man in my closet'. So his mother runs into the room and starts yelling at me and calling the police. And I tried calming down, and I told her, 'it's ok, I'm just gay'".

So that was my friend. Don't get me wrong though, I'm not anti-gay at all. I love gay people. Well, not in that way, but you know what I mean... I totally support it. Gay people are cool. Lesbians are really cool. I'm into lesbians, I like a challenge.

Anyway, that story isn't the only time I had to bail someone out of jail. For some reason my friends always call me to bail them out... and they never pay me back. Why am I friends with people who get into jail anyway?

So this other friend of mine, he got picked up for shoplifting. Literally. He was working construction, and they were almost done, so he was playing around with one of those big machine things they use, I forget their names... you know, like that blue thing from Bob the Builder. By the way, ever notice how Obama stole his campaign from Bob the Builder? Can we fix it? Yes We Can!

So yeah, he was playing around with it, and somehow he managed to actually lift the store. Now that makes me think whoever architected the store wasn't very smart. I wonder if they were Waterloo grads or not... anyway, he didn't know how to put the store back down. His supervisor got mad, and the cops showed up, so his supervisor said something about "shop-lifting", and the cops assumed the wrong thing and arrested him. Rumour has it they never managed to put the store down because somebody lost the instruction manual for that particular machine, so instead they build another floor below it. And that's today's lesson, watch more Bob the Builder.

Blackberry π

Balsillie Invests in Mathematical Terminology

Jim Balsillie has decided that moving another NHL team to Southern Ontario has not bothered the Ontario Teachers Pension Plan enough. To go along with his purchase of the Phoenix Coyotes, the Co-CEO of RIM has put in an attempt to purchase the first two hundred digits of π , the strict copyright removing any possibility of near-perfect circles without royalties coming to the billionaire. Balsillie originally attempted to purchase the entire constant, but when told that it was infinitely long, he determined the purchase would be irrational.

When questioned on the purchase, he simply told reporters, "It's always been a dream of mine, since I was a kid. I've used π since I was six, and it's every Canadian's dream to define the precision of a circle." On what he plans to do with the digits, he replied "I have been considering revoking the use of π in high school mathematics. Also, I never found e to the $i\pi$ equalling negative one to make much sense. Therefore, I will be making e to the $i\pi$ equal infinity instead."

Unfortunately for Mr. Balsillie, a group of scholars are protesting the purchase of the number. Although many 'round' jokes have been made at the scholars expense, they are bringing the case to the attention of a variety of politicians, including Al Gore. Mr. Gore was concerned about the environmental impact of altering the constant. The courts have invited a variety of mathematicians to testify against Mr. Balsillie, but many of them thought the entire process was far too complex for them. Many π approximators have changed their title to "Prophets of π ", predicting what the digits will soon be. If you have strong concerns against this form of mathematical madness, feel free to leave your opinion in the **BLACK BOX**. **mathNEWS** may not print your stories, but your protest will serve a use against any constant manipulation.

Tbor

9 Statistically Improbable Jumpstarts to 50 Cent's Career

Most statisticians would say that it would have been enough to end it

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ElseWhen: Safari130a or MathSoc of Waterloo's Wild Kingdom

A contribution to the mathematical theory of big game hunting, from mathNEWS Vol.39, No.4, Friday, November 1, 1985

The following present several mathematical methods for capturing a lion in the middle of the Sahara Desert:

- **The method of inversive geometry:** We place a spherical cage in the desert, enter it, and lock it. We perform an inversion with respect to the cage. The lion is then in the interior of the cage, and we are outside.
- **The method of projective geometry:** Without loss of generality, we may regard the Sahara desert as a plane. Project the plane into a line, and then project the line into an interior point in the cage. The lion is projected into the same point.
- **The "Mengentheoretisch" method:** We observe that the desert is a separable space. It therefore contains an enumerable, dense set of points, from which can be extracted a sequence having the lion as a limit. We then approach the lion stealthily along this sequence, bearing with us suitable equipment.
- **The Peano method:** Construct, by standard methods, a continuous curve passing through every point of the desert. It has been shown that it is possible to traverse such a curve in an arbitrarily short time. Armed with a spear, we traverse the curve in a time shorter than that in which a lion can move its own length.
- **A topological method:** We observe that a lion has at least the connectivity of a torus. We transport the desert into a four-space. It is then possible to carry out such a deformation that the lion can be returned to three-space in a knotted condition. He is then helpless.
- **The Cauchy, of function-theoretical, method:** We consider an analytic lion-valued function $f(z)$. Let X be the cage. Consider the product of $[1/(2^*Pi^*i)]$ and the integral of $f(z)/(z-X)$ over C with respect to z , where C is the boundary of the desert. The integral's value is $f(X)$, i.e., the lion is in the cage.

Unnatural History

In the beginning, the creator made porn!

And it was good.

...for a time.

But the porn was local only

It became tiresome and repetitive.

The dudes and ladies desired more variety.

And less trips to stores on the sketchy side of town.

Thus the creator begat discrete mail services.

And it was good.

...for a time.

The discrete brown envelopes were expensive.

"We want cheap porn now!" the dudes and ladies cried.

The creator considered the request and found it just.

Thus, internet was born.

And it was good.

The porn was cheap and plentiful

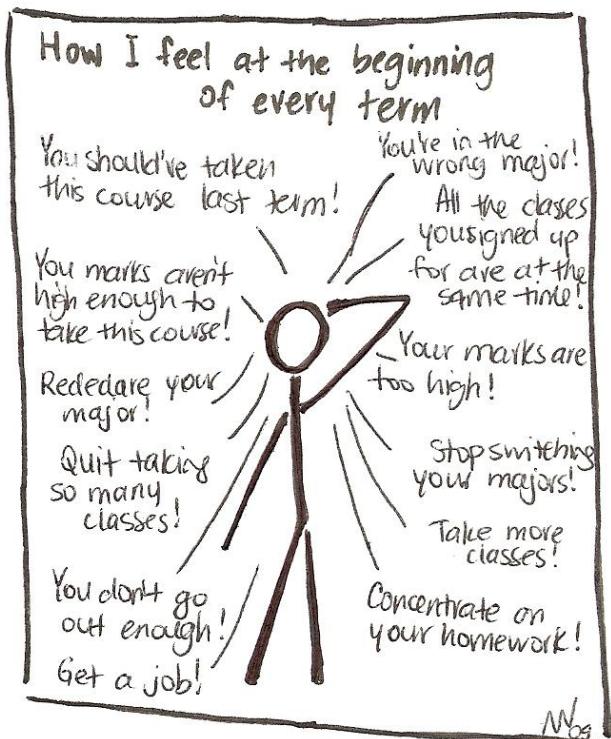
And the dudes and ladies rejoiced.

And if dudes and ladies wanted weird stuff, Rule 34 provided.

Here middles the tale of the internet.

- **The Wiener Tauberian method:** We procure a tame lion, L_0 of class $L(-\infty, +\infty)$, whose Fourier transform nowhere vanishes, and release it in the desert. L_0 then converges to our cage. By Wiener's General Tauberian Theorem, any other lion, say L , will then converge to the same cage. Alternatively, we can approximate arbitrarily close to L by translating L_0 about the desert.
- **The Schroedinger method:** At any given moment there is a positive probability that there is a lion in the cage. Sit down and wait.
- **A relativistic method:** We distribute about the desert lion bait containing large portions of the Companion of Sirius. When enough bait has been taken, we project a beam of light across the desert. This will bend right around the lion, who will then become so dizzy that he can be approached with impunity.
- **A thermodynamical method:** We construct a semi-permeable membrane, permeable to everything except lions, and sweep it across the desert.
- **A magneto-optical method:** We plant a large lenticular bed of catnip, whose axis lies along the direction of the horizontal component of the earth's magnetic field, and place a cage at one of its foci. We distribute over the desert large quantities of magnetized spinach, which, as is well known, has a high ferric content. The spinach is eaten by the herbivorous denizens of the desert, which are in turn eaten by lions. The lions are then oriented parallel to the earth's magnetic field, and the resulting beam of lions is focused by the catnip upon the cage.

Keebler the past and Nadz the present



profQUOTES*A Proof by Example: We listen in class*

"Yes, I know I look like the ShamWow guy."

Smith, ECON 102

"Doom, gloom, and pandemic. That's all we need, me coming in a mask."

Smith, ECON 102

"[The TA] is studying for an advanced degree. He can see how he'll spend all that extra money ... at Wal-Mart."

Smith, ECON 102

[Of himself] "Most professors are arrogant, but this guy takes arrogance to an art form."

Smith, ECON 102

"Don't you think about anything at night? Oh, I know what you're thinking about, let's not go there."

Smith, ECON 102

"That's right, give the man a fish."

Macarthy, MUSIC 140

Prof: "I went to Waterloo Collegiate Institute."

Student: "I went there too."

Prof: "I'm ... sorry for you then."

Orchard, CS 370

"So why should I pay you to turn your crank? That didn't come out very polite."

Sakhr, AMATH 261

"In my last class, there two guys from pure math who would come up with counter examples to all my statements, so I pencilled in "if the limit exists" after every theorem in my notes, just to save my ass."

Sakhr, AMATH 261

"My marker is ... running out of juice too early."

Sakhr, AMATH 261

"Why do we study ODEs, apart from making your university life miserable?"

Miskovic, AMATH 353

"There may be other ways to describe a wave function besides mathmatically ... perhaps interpretive dance."

Melko, PHYS 334

"Integration by parts: you've probably seen this before. If not, just pretend you have!"

Melko, PHYS 334

"If two fish are both at equilibrium with a pond and then you rub the fish together ... um, neither one will feel warm — the fish are at equilibrium with each other!"

Duley, PHYS 258

"Kelvin was known for being often wrong ... he was also Scottish."

Duley, PHYS 258

"I left out Mexico because they're in quarantine. Am I allowed to joke about that? Don't tell anybody!"

West, AMATH 231

"All the material for this course is on UWACE. I don't really know how it works; I logged in one time ..."

Kennings, ME 123

"You labelled it wrong, so the equation doesn't work, so just don't do it."

Kennings, ME 123

"Aw, I didn't do it this way in my notes so now I have to think."

Kennings, ME 123

A1 - Reply to this post*Really? We mark University students on this?*

If you read the course newsgroups you'll often notice many, many messages as replies to something with a similar subject. The idea behind these messages is to introduce students to the Unix environment and make sure they can post to the newsgroup. This is very noble, but using Unix is a basic skill, seeing posts like this in CS240 (worth 10/70 marks on A1) is ridiculous! Considering that every course before it in sequence (CS135,CS136,CS241) except CS134 (which is phasing out) has newsgroups this already seems absurd, but that is not the end of it.

In University there is a notion of 'expected skills' (for lack of a better term), i.e. things you are expected to know or learn on your own as there are more important things to be taught with course time. This is not to say if you struggle you won't receive help, and in the case of Unix students are quite self-helping (the CS Club often runs Unix tutorials, and makes the tutorial materials available in the club office). So with this in mind, why do we continue to pay for such crap? Certainly for a late-second-year course proficiency (or at least familiarity) with Unix and the student environment is an 'expected skill'. If instructors in Computer Science don't realize this and continue to teach more and more 'how I mine for computer' we will find that students graduating with a BCS have nothing of the type, and are merely drones in a mould, useless for anything but the narrow band spoon fed to them.

So I implore you, my fellow students: don't stand for this crap. If you get an assignment that asks you to do trivial things in an effort to make you jump for scraps of marks in some twisted circus, talk to your professor. If they don't listen, go to a Director. We, the student body, find ourselves at a crossroads. We can continue to take marks over learning, or we can make a stand and tell the University that we are here to learn and they can burn the tents of the marks circus.

The fire will be beautiful,
you should join me,
Edgar Bering

Notes for those in Advanced math courses

Switching from an advanced math course to a normal math course does not guarantee your marks will stay strong.

Like all those math geese who are so crazy for math that they spend most of their time on solving math problems, I did not hesitate to take both Math145 and Math147 in 1A term. The advanced versions of Math135 and Math137, respectively. After that term, I started to get tired studying all of the theorems that didn't seem applicable anywhere, let alone my future career. So I switched to regular math courses. Since I could handle those crazy homework questions in advanced math courses, I had no doubt that I would be able to score high 90s in regular math course. However, I did not. I finally realized having advanced math experience does not mean I can score well in regular math courses without trying hard.

One thing that I did notice about the differences between advanced math and regular math was that advanced math homework was mostly proofs but regular math homework was mostly calculations. Those proofs we did in advanced math could be solved by taking notes in class and understanding some basic theorems. In contrast, regular math courses do not require students to prove most of the theorems used, but they require students to use them in basically every situation known. To achieve that level, students need to do some practice after class in order to be familiar with these applications. It might look easy to those who come from an advanced class, but since I skipped most of the lectures, assuming that I would be able to study on my own, I did not understand those questions. Having an arguably better math background did not save me from lazy work habits.

The other thing that contributed to my loss was getting used to losing marks without worrying. In an advanced math course, it is very possible to get a 60% on an assignment but end up with a 90% after scaling. Since all the assignments are very tough and the average is low, the professors would normally bring up the marks, sometimes to a very large extent. At the end of the term, everybody thought they were getting 60%~70% but most people end up getting 90%. This does not happen in a regular math course. Professors do not usually adjust the marks. (Unless you are getting a 49% and they might make it a 50%, but otherwise, you stay where you are.) After getting unsatisfactory scores on some of the assignments, I was not quite aware about the consequences, because I was so used to getting similar marks. Actually, I was not worried until the results of the final came out.

Therefore, do not ever think regular math courses are easy if you are in an advanced class! Every achievement requires hard work behind whatever course you are taking.

Crystin

Signs You're a Trekkie

- You can read Hamlet in the original Klingon.
- You have followed the Yellowcake road to the Dilithium crystals.
- Your logic is more impeccable than Nancy Day's.
- You think Wesley Crusher is cool.
- You have worked through the quantum physics of the transporter.

I don't want to have to pick

To the tune of Aerosmith's "I don't want to miss a thing"

I will stay awake just to hear your breathing
 Check to make sure that you're sleeping
 Then go to where your sister's keeping
 I could spend the night in her sweet bedchamber
 I then say my dreams I just don't remember
 For every moment spent with you I spend two with your sister

Chorus

Don't want to close my pants
 I don't want to fall asleep
 'Cause I miss your sister
 And I don't want to have to pick
 Cause even when I dream of you
 I dream about your sister too
 I'd still miss you, baby
 But I don't want to have to pick

Lying straight to you, saying I've been faithful
 And I'm wondering when you're dreaming
 Wondering if you suspect I'm cheating
 Then I leave your bed
 And thank God for rohypnol
 I just want to stay with you when I'm done with your sister,
 And best friend and mother!

Chorus

I don't want to miss your eyes
 I don't want to miss her kiss
 I just want to be with you
 Or your sister, just like this
 I just want to hold you both
 Feel your bodies close to mine
 And just stay in this position
 For all the rest of time.

Chorus to end

Angelo

I've Been Waiting for the Twelve

to "I've Been Working on the Railroad"

I've been waiting for the Twe-elve
 Right along Keats Way
 I've been waiting for the Twe-elve
 Asking why there's a de-lay

Can't they see the students waiting
 Trying to get to class
 I've got to hand in Real Time
 Or they'll have my ass!

40 "I'm not taking Real Time" 2
 idea by snippet

How to Fight a Goose

The plague of geese is upon us! They're everywhere, shooting menacing glances at innocent passer-bys. Ready to attack without provocation or cause. Mercilessly. Scared? You should be. But there is hope. You can fight back. With a little background knowledge and some simple instruction, you too can defend yourself from an onslaught of webbed feet and wings.

The first thing to do when fighting a goose is the stare-down. If a goose looks like its about to throw down give it a good hard look in the eyes. While most geese aren't put off by an opponent meeting their gaze head on, it is sometimes possible to avoid a fight with pure intimidation.

If the goose is still blood-thirsty, it will most likely attack, going directly for your head. Do not be afraid or startled by the flurry of wings. Geese tend to weigh between 5-15 lbs. when full grown so even though the goose may seem huge with its wings spread, it's nothing larger than a filled laundry basket.

The goose will most likely attack with its beak which is what you really need to watch out for. While a hard strike from a wing is nothing pleasant, and the potential exists for the webbed feet to wreck havoc, that's nothing compared to the awesome power of the goose jaw. Think of getting your finger stuck in a car door a few times and you now have the pain of a goose bite.

Your best bet is to protect your eyes and start flailing wildly. Textbooks make great weapons and a good strike or two can easily immobilize an assaulting bird. If you are able to incapacitate your birdly attacker: run. It may be possible to survive a battle with one goose, but it is insane to take on a flock. And where there is one goose, there are always others.

Anonymous

De-stressing Tips for the Average Idiot

Happy Friday!

Well, it's been a hectic week of being awesome and nuzzling puppies and life is as sane as your next issue of *mathNEWS*, and hey! - I've been in the Loo for three consecutive terms now. (How did that happen?) Well, probably a quarter of you guys are too. I figured I've stayed relatively alive and sane 'til now (debatable), so why not share a few de-stressing techniques?

Eh. Here they are, even if you don't want to know them.

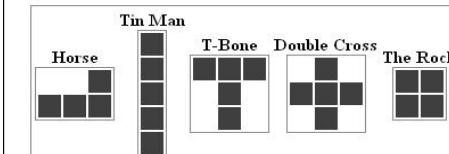
1. Start panicking. Loudly. Preferably at 3am in the morning on RCH's rooftop.
2. Panic.
3. Panic.
4. Chase the geese. Make sure your facial expression looks something like (OvO). It's okay if you get goose flu.
5. One word - chocolate. Nom nom nom.
6. I heard that porn goes well with chocolate.
7. I heard that beer goes well with porn.
8. I heard that there are math erotica in the CS club.
9. I heard that they're willing to share.
10. When all else fails, joining the *mathNEWS* production team. Seriously, it's as awesome as a ton of chocolate.

Remember, it's okay when others look at you weirdly. It just means you're special. And more awesome. Alright, too long now. Stopping here.

SigInt

The precious 10x8 grid that we call home has been infiltrated. Signals intelligence tells us that the following agents are somewhere nearby, all they can tell us about their locations is

- How many squares in a row or column are occupied
- They've been ordered to disperse so they aren't touching, not even diagonally.
- Remember: they can rotate.



											1
											1
											3
											2
											1
											1
											5
											3
											0
0	1	4	1	3	0	7	2				

Drywaller

"Listen up. Our client isn't picky, as long as each square has the right number of walls surrounding it. Sounds a little tricky, but we didn't get to be the #3 drywall outfit in town by being lazy."

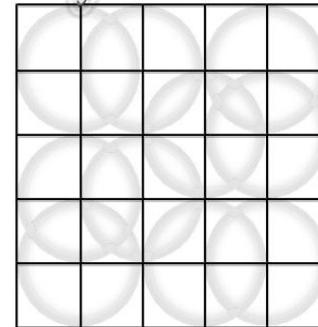
Also:

- There's a wall around the outside
- They want exactly 14 rooms

2	2	2	3	3	2	2	2	3	4
2	2	1	1	2	3	3	2	1	2
2	1	0	1	3	2	3	4	2	2
3	1	0	2	3	2	2	2	2	2
3	1	1	2	1	1	1	1	2	2
3	2	2	1	0	0	0	0	1	2
3	2	2	1	0	0	0	0	1	2
2	2	2	1	0	0	0	0	1	2
1	2	3	1	0	0	0	0	1	3
2	2	3	2	1	1	1	1	2	4

Umbrellas

Place the following 10 squares on the 10 circles so that the overlapping numbers match up.



8	8	6	2	8	3	2	2
3	8	8	1	1	1	1	2
3	0	5	8	2	3	8	6
8	6	8	3	5	8	7	2
9	7	6	0				
2	2	2	5				

**Puzzles
courtesy
euri.ca**

"If I put just one more article on porn into this issue, I would be qualified to be the editor of The Imprint." -StaticED