# math NEWS ${ }^{25}$ <br> Volume 78, Issue 3 <br> Friday, October 9, 1998 



# $\operatorname{CO}$ = Club <br> A Student Chapter of the ACM 

## CSC Flash

Greetings, gentle reader.
The first UW Programming Contest was held Sunday, October $4^{\text {th }} .23$ of 45 contestants correctly answered 1 question or more. David Kennedy won, answering all five questions correctly within the 3 hour allotted time.

Apologies to plg users for consuming all their ptys!
Complete results follow; problems, solutions, and test data available at http://plg.uwaterloo.ca/~ acm00

Next contest: Saturday October 17

| userid | Team Name | A | B | C | D | E |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| acm026 | David Kennedy | 180 | 22 | 124 | 41 | 87 |  | 454 |
| acm023 | Ondrej Lhotak | 105 | 43 | 173 | 106 |  |  | 427 |
| acm030 | Jeff Shute | 120 | 63 |  | 107 |  |  | 290 |
| acm024 | Viet-Trung Luu | 201 | 14 |  | 115 |  |  | 330 |
| acm010 | Donny Cheung | 38 | 114 | 183 |  |  |  | 335 |
| acm003 | Eran Guendelman |  | 70 |  | 117 |  |  | 187 |
| acm052 | Mark Scannell |  | 48 |  | 148 |  |  | 196 |
| acm008 | Graeme Kemkes |  | 181 |  | 52 |  |  | 233 |
| acm059 | Clayton Smith |  | 123 |  | 146 |  |  | 269 |
| acm020 | Neil Girdhar | 299 | 239 |  |  |  |  | 538 |
| acm031 | John Poole |  | 28 |  |  |  |  | - 28 |
| acm002 | Wai Ling Yee |  | 102 |  |  |  |  | 102 |
| acm017 | Joe Rideout |  | 108 |  |  |  |  | 108 |
| acm001 | Wai Min Yee |  |  |  | 127 |  |  | 127 |
| acm056 | Reuben Smith |  | 135 |  |  |  |  | 135 |
| acm013 | Jasmin Patry |  | 135 |  |  |  |  | 135 |
| acm032 | Ahilan Sinnarajah |  |  |  | 153 |  |  | 153 |
| acm015 | Lars Hellsten |  |  |  | 165 |  |  | 165 |
| acm019 | Soroosh Yazdani |  | 177 |  |  |  |  | 177 |
| acm012 | Wing Hong Ho |  |  |  | 194 |  |  | 194 |
| acm057 | Ming-Yee Iu |  | 199 |  |  |  |  | 199 |
| acm039 | Brian Hanley |  | 214 |  |  |  |  | 214 |
| acm028 | Curtis Man |  |  |  | 217 |  |  | 217 |

[all other scores 00 ]
And now, a list of other upcoming CSC events:

## Introduction to UNIX Part II

Tuesday, October $13^{\text {th }}, 16 \mathrm{~h} 30-18 \mathrm{~h} 30$
reprised on Wednesday, October $14^{\text {th }}, 17 \mathrm{~h} 30-19 \mathrm{~h} 30$ MC3006

What you need to know to find your way in a UNIX environment. Covers the most basic commands and extensions (man, ls , cd, et alia). You need not have attended the UNIX Part I tutorial last week. If you do not have an undergrad UNIX account, but you are a member of the CSC, we can provide you with a temporary account for the duration of the tutorial.

## ACM Programming Contest: A Competitor's Perspective

## Wednesday, October $14^{\text {th }}, 16 \mathrm{~h} 00$ MC4063

In this talk, Howard Cheng will discuss his observations at the first regional contest, concentrating on the mental and strategic mistakes that people make. He will also briefly talk about a set of useful strategies for programming contests, followed by a detailed discussion of the strategies used by the University of Alberta programming team, which finished in eighth place at the World Finals last year.

Howard Cheng is a PhD student at the University of Waterloo.

> vi Tutorial
> Thursday, October $15^{\text {th }}, 16 \mathrm{~h} 30$ MC 3006
vi is a UNIX editor, and the default editor on many systems (including calum). Its interface can intimidate those unfamiliar with its use, but the compactness and power of vi more than compensate the little effort required to become familiarized.

## SIGGRAPH Video Night

$$
\begin{gathered}
\text { Tuesday, October } 20^{\text {th }}, 19 \mathrm{~h} 00 \\
\text { DC1302 }
\end{gathered}
$$

SIGGRAPH is the ACM special-interest group for comoputer graphics. Every year, corporations, artists and schools from around the world present their masterpieces. Shorts vary in genre and intended audience, from the commercial, comical or artistic to the experimental and scientific. So, if you enjoy animation in general or computer animation in particular, you won't want to miss this!

> Open $G L$
> Friday, October $23^{\text {rd }}, 14 \mathrm{~h} 00$
> DC1304

Hmmm, I still haven't seen the abstract, so look for the posters. In the meantime, from the back cover of the OpenGL Reference Manual (Second Edition): "OpenGL is a powerful software interface for graphics hardware that allows graphics programmers to produce high-quality colour images of 3D objects. The functions in the OpenGL library enable programmers to build geometric models, view models interactively in 3D space, control colour and lighting, manipulate images, and perform such tasks as alpha blending, antialiasing, depth cueing, and texture mapping."

In closing, if anyone out there has Pud \#18 (if you don't know what "Pud" is, ask your friends), please bring it to the CSC. Our plans cannot proceed without it.

If you any questions, please ask the VP (vp@calum), or drop by our office in MC3036. Hey, it could help.

Calum T. Dalek
CSC Chairbeing

## FACULTY OF MATHEMATICS DEAN'S HONOURS LIST SPRING 1998

In recognition of outstanding academic achievement throughout their undergraduate careers the following students will "GRADUATE ON THE DEAN'S HONOURS LIST" at Fall Convocation, October 24, 1998 and have their names displayed in gold on the walls of the Faculty Colloquium Room (MC 5158).

FUNG Goretti Pek Shan HC CS/EL E
LESHEM Ran HC C\&O
PALMER Christopher Robert H COMP SCI
TO CHIP JR. Ramon H CS/EL E
In recognition of outstanding academic achievement throughout their undergraduate careers the following students will "GRADUATE WITH DISTINCTION" at Fall Convocation, October $24,1998$.

## BANNAYAN Berj HC CSCI

LOK Wai-Yi Begonia H CS/INF
RODGERS John Kenneth 3YR GENERAL
TRAN Quang Ngoc H CS/INF
TSANG Vivian Yuen-Chong HC C\&O\&CS
VINCENT Shawn Patrick H COMP SCI
WEESE Lynda Sue 3YR GENERAL
In recognition of outstanding academic achievement during the Spring 1998 term, the following students qualified for the Dean's Honours List.

ATLEE Christopher Robert BEARE Brian D. BOULET Cilanne Emily BRYDON James Edward CHAN Kevin Ka Wing CHAUHAN Kalpna D. CSERCSICS Michael Frank EL-KOURA George GARTSBEIN Eugenia GROSMAN Michael George HELLSTEN Lars HOLBROOK Mark Andrew hUANG Queenie Wan Chu JOHN William Francis KRAL Tobi Victoria LAMB Neil Andrew Fraser LO Chi Chiu Paul Andrew LUSHMAN Bradley Michael MARR Sarah Elizabeth MNIH Andriy MOORE Tracy Dawn 0'CONNOR Russell PETERS Arlie Ezra PUVANANATHAN Anjayan SANKARAN Siddhartha SAUL Jeffrey H. B.

BAUMAN Shane Brendon BLAIS Eric
BROADBENT Anne L.
CHAN Ina Lynn
CHAN Patrick Shiu Cheung
CHUNG Ricky Wai Kay
DINGLE Nicholas John ELLIOTT Paul Jeffrey GROMADA Bartosz HAMID Zeeshan HICKEN Jason Edward HORN Stephanie Lorraine IRWIN Jeff S.
JUCHE David Karl
LAM Melissa Isdelle
LEE John Sie Yuen
LO Kwok Wai MAMO Mark D. MILLAR Jason Douglas MOORE Lucas Oliver MOWBRAY Duncan John PARIAG David Bishen PREST Ian Jeremy ROEGELE Jonathan SAROIU Stefan SHADDICK Scott Allen

SKEINI Timur STERNE Brendan
THOMPSON Christopher James TO CHIP JR. Ramon
TRUONG Van Anh
TSENG Yung-Shun Vincent
WAN Benny M.
WONG Sabrina Y.
YE Xiao mao Charlie
In recognition of outstanding academic achievement during the Winter 1998 term, the following students have been added retroactively to the Dean's Honours List.

AU Kenneth Wing-Yiu LHOTAK Ondrej

## Prez Sez

Hi. I'll keep my comments brief this week (it's Neville's birthday, and a trip to the Bomber seems to be in order - it's a leadership function; I'm sure you understand).

## CS Deregulation

It's baaaccckkk ... It sounds like the three schools who avoided the "Access to Opportunities" programme (Waterloo, Queen's and Sheridan College) like the plague will be participating after all, although under "more favourable" requirements. What that means for you is that your tuition increases will be limited to $20 \%$ per year. Gee ... that's awfully nice of them.

## The joys of bookkeeping

It sucks. It's also difficult to do, and even more difficult to get someone to do well on a regular basis. In other words, our records suck. A lot. In order to ensure that our records are being properly maintained, we are giving those duties over to our staff. This is a pretty substantial move on our part; by doing this, MathSoc will not only have accurate records to use for budgeting purposes, but it will also help us be more accountable to you, the members. We're very pleased with this particular development.

## FEDS Stuff

I'm sure most of you have heard about the "clubs thing". I'm not going to talk about it here. What I will say is that there's a by-election for the Math Co-op seat. The two candidates are Yaccov Iland and Norm Woo. Campaigning will start right after Thanksgiving, and should be interesting. I wish both Yaccov and Norm the best of luck.

## Various other goodies

In case you've missed it, we have our new photocopier. It's nice.

Pub Night's on the $30^{\text {th }}$ of October (a Friday) at the Bomber.
Charity Ball. November $12^{\text {th }}$. Fed Hall. Semi-formal. Be there, or, well, you don't want to know what will happen. Seriously, I'm really excited about it. Jen and Stephen (Snuggles) and the rest of their team are working really hard on it, and it looks like it's going to be a fabulous event.

Chris "See! I can write short articles" Buchanan
President, MathSoc

# mathNEWS Late-Breaking Update <br> I swear I am not making this up ... and that I am not ripping off Dave Barry 

Lights, Camera ... Action Figures!

Forget Small Soldiers, Beast Wars, and the venerable G. I. Joe.

How about Colin Powell instead? Or John Glenn?
This fall, Hasbro plans to introduce an action figure of the retired General Powell, while Mattel is introducing a "Hot Wheels" action pack version of Senator (and astronaut) Glenn.

The General Powell doll, part of Hasbro's "Historic Commanders Assortment", will be in full dress uniform. Mattel's Glenn package will include three Glenn figurines (with one in a navy suit and red tie, one in a shuttle suit, and one in Glenn's 1962 Mercury suit), a space capsule, and a shuttle.

What will we see next? Well, while I'm tired of the whole thing, I would like to see a Zippergate set. A fully-posable Monica Lewinsky doll, with Kung-Fu grip. (Well, maybe not a KungFu grip.) A Clinton doll: pull the string and it apologizes. A Linda Tripp doll, with built-in hidden tape recorder. And a Kemneth Starr doll, complete with array of subpoenas.

Kinda makes you proud to be a Canadian, doesn't it?

## First "Baby Spice", Now "Spice Babies"?

No, it's not new cartoon like Muppet Babies. It's scarier.
In August, Victoria "Posh Spice" Adams and Melanie "Scary Spice" Brown announced their respective pregnancies. (Neither is married.)

Now British authorites are afraid of a wave of copycat pregnancies among teenage girls that idolize the phenominally successful pop group, resulting in a generation of Spice babies.

Can you picture the marketing possibilities? ("Spice: The Source of a New Generation". "Lipton Spice: It's FertiliTea Time!" "Spice Babies: Just Do It.") Or the next album? (Wannabe Preggers. 1 Become 2. Spice Up Your Life ... with Children.)

On second thought, don't. For the love of God.

## A Potential Solution to the Homeless Problem?

So what kind of Vancouver Island wildlife would you expect to be wandering inside a downtown building in Victoria?

A rabbit? A deer? Yours truly?
Try a cougar.
Craig Grebicki, an employee of Scott Plastics, spotted the cougar wandering the hallways of his workplace. He managed to trap the cougar in a room by throwing a chair against a door.
"It scared the crap out of me," Grebicki was later quoted as saying.

Normally, cougars live in the mountains of Vancouver Island and are rarely seen outside their native habitat. However, an unusually dry summer, which reduced their food and water supplies on the mountains, is being blamed by authorities for the appearance in urban Victoria.

Then again, maybe it was all an elaborate advertising campaign for Labatt Wildcat ${ }^{\text {TM }}$

## The Silence of the Cabs

Ever been upset by anything a cab driver has said to you? If so, you'd love Las Vegas.
Why? Because Las Vegas taxi drivers don't talk.
For years, drivers caught soliciting travellers at the airport by calling out phrases like "hotel shuttle" or "we can go there cheaper" were fined up to $\$ 10,000$ by the city Transportation Services Authority.

Drivers became so fearful of the fines, they shut up. Permanently.
Now the TSA has acknowledged its rules are a bit too stringent, and is now considering the "Hello" rule, which would allow drivers to say the following phrases: "May I help you?" "Good morning," "Good afternoon," and "Good evening."

Las Vegas, city of all-night marriage chapels and Wayne Newton shows, is worried about regulating chatty cabbies? Next thing you know, Toronto will attempt to crack down on red-light runners. (Wait a minute ... )

## Alternative Methods to Settle Teacher's Strikes

As you may know, Russia is broke. Russia's economic woes, coupled with the Asian money crisis, is being blamed for the recent instability in the U. S. and Canadian stock markets.

But what about the Russians? How are they coping?
Well, thanks to the empty bank accounts of the government, teachers in central Russia aren't getting paid in hard currency.

Instead, they're getting hard liquor. Vodka, to be precise.
The 8,000 educators in the Altai republic will get 15 bottles of vodka each for the six month's wages they are owed until the federal government is able to pay them in money.

A previous attempt to pay the teachers with goods rather than money was rejected. The offered goods included toilet paper and funeral accessories.

I can't help but think their might be merit in this, though. Would the recent teacher's strike have happened if the teachers were getting paid in vodka?

Mike "Hammer" Hammond
West Coast correspondant
B. C. mathNEWS Hall
(with files from CNN)

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Happy as a sack of rocks: Matt Walsh, Richard Bilson, Chadwick Severn

## What I Did Last Summer <br> SMECAP II

Well, life here's been clipping along at an incredible pace since my last e-mail. It's my fifth week in Guatemala, and I've been laving a very full, rich experience in this country, absorbing the bare hirthday in May.

Speaking of which, I'm going to kill my brother. You see, re there's this neat little ritual here that he just happened to neon glect to tell me about. To celebrate birthdays here, what the Guatemalans do is buy you an absolutely beautiful cake with mounds of gorgeous icing decoration. Then, after singing you a dreadfully off-tune version of happy birthday to you, they motion you towards the cake and tell you to take a bite. Out of the uncut cake. No really, just bend down and take a bite out of the side, they say. You keep protesting in your um, somewhat less than perfect Spanish and telling them that they're crazy, but they're insistent. It's the custom here that the birthday girl/boy takes a bite out of the cake first before it's cut, they say. After five more minutes of you desperately shaking your lead and them stubbornly motioning you to the cake, you roll your eyes and give in, and gingerly bend towards the cake. And feel your head lovingly mushed face first into the gorgeous icing decoration.
I'm going to kill my brother.
That is, if I survive the next month. When I think back on the number of times I've willingly put my life in the hands of madmen, I marvel at the amount of dumb luck that's kept me alive.
Bus drivers here are crazy. I'm never going to say anything about OC Transpo or Kitchener Transit again.
See, if bus drivers don't overtake every goddamn thing on the road here in Guatemala, they die. I've finally figured it out. So you see, this explains why I've often been reduced to clutcling the nearest chicken (yes, chicken buses abound here) as we barrell down treacherous winding mountain passes towards oncoming traffic. And why I now know the joys of having many perilous Bladder Moments.
I've been observing the behaviour of bus drivers fairly closely here (whenever my eyes aren't squeezed shut in terror). There seems to be some kind of weird code going between them. They always wave happily and make funny hand gestures to each other as they narrowly miss mutual mangling, grinning crazily the whole time. I think there's a Big Scary Bus Driver club.
But oh, the best was last week, when the bus I was on pulled the ultimate overtaking move: there was construction going on to fix the 2-lane mountain pass we were on, so one lane was shut down and cars were being allowed through in one direction, then the other, in turn. This system works quite well, except for the fact that my driver suddenly decided that he HAD to overtake all the cars that were queued up ahead of it, waiting to use the lane. So Mr. "look at me! I'm so big! I'm a Galgos bus driver!" pulled into the oncoming traffic lane, went to the front of the line, and tried to butt ahead of the first waiting car.
Now, there was a plank embedded with nails on the road in his way (which was there to stop this kind of stuff from happening) and an angry construction guy outside waving him back. But
our Brave Sir Bus Driver, fear ye not, was at hand to personally send out the ticket collector to deal with the situation.
So out went IntrepidMr.TicketCollectorMan in his righteous plank removing wrath to confront AngryConstructionWorker. AngryConstructionWorker pulled out a big sharp stick and started waving it around. IntrepidMr.TicketCollectorMan beat a hasty retreat.

Things weren't looking good for the Galgos bus team. But, olh, ah, hang on, all was not lost! IntrepidMr.TicketCollectorMan conferred with Brave Sir Bus Driver, nodded, then went to the side of the bus and pulled out a huge freaking machete, (no joke) before marching back outside.

I couldn't believe it. While they were going at it outside, my seatmate (from the states) giggled and tried to take pictures. Meanwhile, Brave Sir Bus Driver nosed his bus into the other lane to completely block both lanes of the road, and all traffic was brought to a halt for a good five minutes before the Galgos bus team finally got its way and made it through.
You see, this was all done so Brave Sir Bus Driver wouldn't die from a case of MissedOvertakinosis. For some reason, the cars that we passed didn't seem to understand this and weren't all that happy with the situation, so as an added bonus, I learned what the "fuck you" sign looks like in Guatemala.

So yeah, life's been exciting. I've had lots of other interesting experiences here, and some of them even don't involve near-death experiences. The most recent was last week, when I took a week off to visit the famous Mayan ruins in the jungles of Tikal in northern Guatemala. It was absolutely amazing. The ruins are absolutely phenomenal and I had a great time wandering through the jungle and exploring the different structures (courageously braving the poisonous snakes, thankyouverymuch).
(Well, I heard there were snakes. I saw a frog, anyway.)
Even aside from exploring the Mayan structures themselves (there are some pheonomenal views from the tops of some of the temples), exploring some of the caves in the region (until bats freaked me and my friend out) and learning about the way of life of the Maya, just having the chance to see some of the phenomenally diverse wildlife of the region made the long expensive journey to Tikal worth the experience. Ever seen a toucan? Eh? Well $I$ have (nyahnyah). I also saw an alligator up close.
(Well, the sign said that there might be alligators. I saw a log, anyway.)
At any rate, I should be taking off now to let someone else on this machine, so until the next time I have a chance to chat with you guys, take good care of yourselves. (And enjoy your bus rides. Really.)

Chow, Sarah

## Correction

Peter Hoffman was quoted last issue as saying "... I mean bullshit." What Hoffman really said was "... I mean no bullshit." mathNEWS regrets the error. The offending submitter will be thrashed when they are found.

# Choose Your Own Adventure 

The Bus Ride of Doom! By Terry Frostywillow

Remember those wonderful "Choose Your Own Adventure" books that we used to read as children? We're proud to present an excerpt from The Bus Ride of Doom! which is the newest book in the C.Y.O.A. series by reknowned children's author Terry Frostywillow. Simply start at paragraph number one below, and choose the paragraphs that you wish to take.

1. You are Timmy, a quiet, shy, and harmless little boy. Although you are relatively smart, you spend a lot of time reading silly choose-your-own-adventure books. As a result, your marks are lower than they should be, and you ended up as an Arts student at the University of Waterloo. If you feel shame, go to paragraph 5. If you decide to transfer to the Math Faculty, go to paragraph 10.
2. "Wud yooo like tooo-" is all you get out before you throw up on her shirt.
"No. One was quite enough." sighs the attractive blonde. Good going, blockhead. If you decide that now really is the best time to be going, go to paragraph 16. If you think that buying her a drink is a better idea, go to paragraph 12.
3. After hopping up on your barstool you trip and land head first into a tray of glasses. Ouch! All those shards must sting a bit! If you decide to go catch a bus to go to the hospital, go to paragraph 16 . If you decide to make the drink with your face full of blood, go to paragraph 24 .
4. You head on over to the Math Building. Wow! Look at the blue thing! That must be art! Thank goodness you're not going to be an Arts student anymore! Ooooh! There's a calculus class in session! If you decide to go into the calculus class, go to paragraph 13. If you want to get the hell out of here, go to paragraph 16.
5. You feel shame. Poor Timmy. The End.
6. Hey! You're dead! You can't choose a different answer! It's over, man! Go lie down and die!
7. "You heard me, fat boy," you say.

Mister Toomey, the normally jolly registrar, rears back, makes a fist, and begins to swing his arm around in an incredibly powerful punch. If you decide to duck your head to avoid being hit, go to paragraph 11. If you decide to not duck, go to paragraph 14.
8. You go to the Bombshelter to get smashed. A cute girl walks into the bar. If you say "Woo-hoo! Thar be the little lash whosh come to kish me." go to paragraph 18. If you say "Well, fiddle-dee-dee! Yer da cootest fing I've sheen all day!" go to paragraph 18. If you say "I love you, man! You're the best!" go to paragraph 18.
9. You're pissed and she's got barf on her shoes! She's not going to go on a date with you, you moron. You realize that this would be a good time to leave. If you decide to leave, go to paragraph 16 . If you really go through with asking her out, go to paragraph 2 .
10. You decide to transfer into mathematics. Wow! Look at all the numbers! Let's go over to the registrar's office! Look, it's Mister Toomey, the registrar!
"Hey there, Mister Toomey! I wanna be a Math student!"
"Whoa there, Timmy! Let's see if you know any math first! What's the antiderivative of 3 ?"
If you say "Gee, that's a tough one, Mister Toomey!" go to paragraph 15. If you kick Mister Toomey's ass, go to paragraph 20.
11. You duck and the punch goes sailing over your head and into Bobby, the one-toothed freak who you call your best friend. "Bobby!" you cry, but it's too late. He lost his last tooth. If you decide to take Bobby to the dentist, go to paragraph 17. If you decide to get the hell off campus, $g_{0}$ to paragraph 16.
12. You look around for the bartender. Where is that sonovabitch? Well, looks like you might as well leave. If you decide to go catch a bus, go to paragraph 16. If you hop over the bar to make her a drink yourself, go to paragraph 3.
13. Calculus class? You're in the middle of an adventure called "The Bus Ride of Doom" and you're going to spend the adventure in Calculus class? Fine then, put this story down and go to the nearest Calculus class. You're done.
14. Ooh. Good choice. Yeah, don't duck. That's smart thinking. It's not like you only have a split-second in order to make this decision. You've got freakin' forever to make it! Fine. You get hit in the head. And you know what? You're dead. Didn't see that one coming, eh? And don't think that you can just go back to 6 and choose differently. You're dead!
15. "Gee, that's a tough one, Mister Toomey!" you say.
"Well, yes, I guess you're right. Ha ha ha. Why don't you spend a day over in the Math Building and attend some classes. Then decide whether Mathematics are for you!"
If you say "Wow! What a great idea!" go to paragraph 4. If you say "Why the fuck would I want go there when I'm not going to get credit for it?" go to paragraph 19.
16. You're standing at the bus stop waiting for the bus. Here it comes! Uh oh! This looks like a scary bus! You're in for quite the adventure! If you decide to get on this bus go to paragraph 25. If you decide to wait for the next bus, that one's a scary one too, so go to paragraph 25 . If you decide not to get on any bus, then you're suddenly possessed by aliens who really want to ride the bus; go to paragraph 25 .
17. What do you think the dentist is going to do? Do you think he can glue the tooth back on? It was knocked out of his mouth! Oh well, you decided to go to the dentist. It's too late to change your mind. You know, in order to get to the dentist, you're going to need to take the bus. Go to paragraph 16.
continued on page 7
continued from page 6
18. You throw up on her shoes before you can get the words out. If you decide that this would be a good time to leave, go to paragraph 16. If you think she's buttered-up enough to ask her for a date, go to paragraph 9.
19. You make the cute little statement to Mister Toomey, who seems to have misunderstood you.
"Pardon?" says Mister Toomey.
If you clarify your statement by saying "You heard me, fat boy" go to paragraph 7. If you decide to leave the UW campus as fast as possible, go to paragraph 16.
20. You break out the whoop-ass, and really lay it on Mister Toomey. After fleeing the scene, you think it would be a great idea to leave campus by grabbing the next bus. If you decide to catch the next bus, go to paragraph 16. If you decide to go to the Bombshelter, go to paragraph 8 .
21. How the hell did you end up here? Did you just read this thing in order? What kind of dolt are you? Can't you follow instructions? At each point in the story, you're given a freakin' choice! You aren't supposed to go through them sequentially! What kind of moron reads a choose-your-ownadventure in order? You've ruined all our careful planning and storytelling! It's not supposed to make any sense if you read the paragraphs in order! I'm so pissed off at you that I want to punch you in the chin! Why don't you come over to the publishing house so that I can punch you! You'll need to take a bus to get here! Go to paragraph 16.
22. Holy crap! What are you doing? You can't possibly get to this paragraph unless you're reading these things one after the other! You obviously can't handle a choose-your-ownadventure book! Why don't you go read a normal book! Those you can read in order! I'll bet you'll skip to the end of that book too! It's people like you that cause storytellers to go insane with rage! Insane! With rage! You think I'm kidding? Come take a look! I'm just down Weber Street on the 8 bus! Go to paragraph 16 .
23. Alright, fine. I'm tired of playing this game. It's over. You win. Yeah, you heard me. You win. Congratulations. Do you feel better now? What's that? You want to know what you win? You win a free bus ride! Here's your ticket! Go board the bus at paragraph 16. See you there!
24. You pour every liquor you can find into the largest glass that you can find. You slide the drink down to the other end of the bar, where it promptly falls onto the floor. The bartender returns with the campus cops. "I'll lick it up!" you offer. The cops take you to the bus stop and force you to get on the next bus. Go to paragraph 16, you bastard.
25. You get on the bus and experience The Bus Ride of Doom! For more details, please read the sequel, The Bus Ride of Doom 2!

## Cynic's Corner

## Know Smoking

Where there's smoke there's fire ... but is it always true that there's fire when there's a fire alarm? Technically, it should be; check out the little notation above the fire alarm pulls in the building. It refers to 'FALSE ALARM OF FIRE' under section 393 of the Criminal Code. If there is no fire, you should not circulate an alarm "by outcry, ringing bells, fire alarm, telephone or telegraph, or in any other manner". Which may explain why people don't cart bells around with them, but also leads to the question: where are the telegraph machines in the math building?

Actually, the question you're more likely asking is why I'm talking about this at all. Well, it's because a couple of weeks ago, I discovered the worst place to be during a fire alarm. The washroom. Duh, you say, but the fire alarm in the math building creates an added problem: deafness. The damn thing is one continuous loud noise (which is softer in hallways than closed rooms). It doesn't take into account situations where you can't immediately clap your hands over your ears. (Though they don't seem to want us to spend more than 5 seconds washing our hands anyway. I'm probably going to burn my fingers one of these days.) So in general folks, unless there's actually a fire, don't mess around trying to get arrested; do something unique and be considerate of people who would rather not stumble out of the building into cold air, half-deaf.

Now, the other interesting thing about fire alarms is the instructions dictating what to do in the event of a fire occurring. (Well, since I was reading things anyway ... ) The UW Fire Alarm Procedures (not Functions) note that you should: Remain Calm. Vacate fire area and close door. (At this point, we are assuming you personally are not closing the door on those who have not yet vacated.) Then: Actuate nearest wall mounted fire alarm. Huh? I have discovered this is not a misspelling of "activate" - look it up. After all, you won't want to be scrambling for a dictionary in the event of a real fire. Then in apartments you will probably be told to: Alarm other Tenants. One way to interpret this would be running next door and shouting "nuclear war has just been declared!" I mean hey, that would serve to alarm me; possibly more than if there were just a fire.

But in any event, I don't want to leave you with the impression that I'm making light of fire. It's unmatched. So don't send me any flames. Okay, truly seriously, fire is dangerous and not something to be played around with. Not to mention I'd probably be crushed if I lost items I own in a fire. So respect nature. (Be careful what you do with your cigarettes, candles, matches, etc.) I won't bother to preach to you though. By the way, it's been brought to my attention that I'm not really acting very cynical. Well, despite the fact that I see us as being small in the scale of the universe and life as being meaningless on occasion, there are bright highlights. So that's my excuse. Okay, I think this is close to a column (like other contributors worry about this ... ) so I'll stop now. I could comment on the new non-LaTeX commands we're using here ... but that's probably not of interest to you ... so I'll just babble on for two more lines to avoid getting my name published as filler again. Not that there's anything wrong with that.

## Why Women are like the Co-op Process

1. A lot of the time, the interviewer never shows up.
2. Make sure all your references are set straight, you don't want them to be giving mixed responses once the questions start getting asked.
3. If you are VERY successful during your work term, you'll soon be up for a raise.
4. Co-op never tells you when there's a change in plans, and you end up sitting at the corner of King and Queen in the freezing rain, because she was supposed to pick you up, and, oh sorry.
5. If you don't pad your resume, you'll never get an interview
6. Remeber where you lied on your resume, because they're sure to ask you questions about it.
7. Never look at the postings in the Math Building, they are never up to date.
8. When they ask you about your worst quality, don't tell them that you've never formatted a drive, or could never figure which way the write protect tab should go, or could never mount a drive.
9. When they ask your about your biggest accomplishment, don't brag too much - in comparison to the real world it was probably some small simple task.
10. The've placed a ridiculously small cap on the number of jobs you can apply to.
11. You pay a hell of a lot of money, but see little in return.
12. Peter Lizak still doesn't have a job.

Last but not least, never blow your interview (enough said).
Damian Gomes

## gridCOMMENTS

## Not much to speak of ...

Well, the grid is on the back page. See? Try it. You'll like it. The solution to Gridby's Issue 500 mindbender can be found on the back page. We aren't actually awarding any prizes here, because we haven't actually received any submissions. In the next mathNEWS we'll award prizes for this weeks gridWORD as well as the one from last week, so get working. The deadline for submission for either puzzle is Monday, October $19^{\text {th }}$ at $6: 00 \mathrm{pm}$. You can submit through the BLACK BOX (usually outside the comfy lounge, but currently in the MathSoc office), in the mathNEWS mailbox, or directly to me via e-mail at rcbilson@undergrad.math. uwaterloo.ca.

Richard "Not GridBoy" Bilson

## profQUOTES

[refering to assignment] "Did anyone get the bonus? 'Cause I couldn't."

Schellenberg, MATH 239
[Student] "How is this theorem useful?"
[Prof] "How is any math useful? Tell you what, in a second I'll show you how you can apply it to choosing a urinal in a bathroom, you can't get more hands-on than that."

Irving, MATH 239
[Student] "Why are we being taught something that does nothing?"
[Prof] "You're not. I'm teaching how to program using something that does nothing!"

Kruk, CS 130J
"Let's discuss what we call stuff ..."
Kruk, CS 130J
"On the board it'll be ugly. On the paper, it'll be ugly. But if you type it, it'll be beautiful!!"

Kruk, CS 130J
"Theorem 1.5.2 gave us existence ... "
Hewitt, MATH 135J
" $x^{4}$ looks like $x^{2}$, just with a flatter bum... you guys don't respond to anything, do you?!?"

Struthers, MATH 137J
"Some of you will get this right away. Others will worry about this for hours and days and weeks and years."

Hewitt, MATH 135J
"Let me make it a q, so you can't ask me that question."
Hewitt, MATH 135J
"... Somebody comes in my office, coughs in my face, I'll cough on Cyntha's (Struthers) face, and she'll get the cold somebody gave me ... understand?"

Hewitt, MATH 135J
"We've almost got it . . . well, almost, we still have 2 blackboards to go ..."

Hewitt, MATH 135J
"It's like those weird psychological experiments where they ask what the first word to come to mind is. They say 'rutabaga,' and some sexual image comes to mind. The next time they say 'rutabaga,' you'll think of some different sexual image."

Vasiga, CS 241
"Not all theorems can be proven by example. It would be nice if we could say that all prime numbers are odd. Two, three, five, and seven are all odd. Therefore nine must be odd."

Vasiga, CS 241

## Sine Field

A column about nothing

You know, I think there's really a generation gap forming because of all the technical jargon we use in computing. Take electronic mail. When I told my mom I was e-mailing people she asked me why I was sending letters 2.71828 times.

In the small apartment, hidden within one of the higher dimensions of the sixth floor of MC, all was quiet. At least until the door burst open and a man ran in shouting, "Sine! I need your help!!"
The occupant of the room looked up from where he had been sitting, reading 'Captain Hooke'. "You can't test any more prograns on our system, Cray-mar!" he declared. "Your last one forced us to decommission napier!"

II didn't come about that," Cray-mar protested. "I came because you're the secret head of the Maintaining Flawed Computers Federation."
"You have an MFCF affair?"
"Well, in a way. See, there's this girl I'm seeing, and she's not receiving the e-mails I send her."
"Alı. But you know, you've never been great with e-mails. Or females for that matter."
-But this is waaAaAaay beyond strange, Sine; it's like they're not getting sent out of the building!"
Sine frowned. "You're sure it's an internal problem?"
"Sine, I'm telling you, my messages are not getting off the caupus!"

Sine's eyes narrowed. "Then it must be Neumann! Problems with mail always originate from his corner of the building ... plus the guy is always scheming."
"Hey, Scheme is a perfectly good coding language," Cray-mar objected. "I use it all the time."
"Reyardless, I'm suspicious of what he did with those new CPUs, we installed to get him to improve performance ... stay
here, I'm going to go and investigate."
It took five knocks for Neumann to answer his door, and when he did he refused to open it the whole way. "Hello, Sine," he greeted.
"Hello, Neumann," Sine returned. "What are you doing in there?"
"What makes you think I'm doing anything?" Neumann asked innocently.
"The fact that something in your room is announcing 'you have mail' every ten seconds. You're purloining people's e-mail, aren't you!"
"Errr ... well so what if I am!" Neumann stated angrily. "People take it all for granted, they never think about all the work that's done to get those messages from point A to point B! All those overworked electrons! Besides, it's not like I was going to keep them indefinetly. Just a day, maybe two ... "
"Neumann ... I was hoping not to resort to this, but if you don't release all the mails I'll be forced to release some pictures of you taken at the last MathSocks meeting."
"What?" Neumann recoiled in horror. "How could you get pictures of my socks? That meeting was closed to the public!"
"Aha!" Sine responded, whipping a card out of his wallet. "But you can do more with the mathNEWS Press card!"
"But this is blackmail!" Neumann protested.
"Well it seems like mail is the only language you understand," Sine observed.
"Curses!" Neumann groused. "All right, you win this round, Sine ... but you haven't beaten me! I'd watch your step next time you walk under an elm or pine tree!"

E-mail was restored in a matter of hours. And once again, all was quiet on the higher dimensions of the sixth floor.

Greg "hologrami" Taylor

# I think the Scrabble ${ }^{\text {TM }}$ tiles are trying to tell you something 

# What to do about Thanksgiving and Oktoberfest 

A frosh's guide to UW

Well, since my last (and consequently first) article, I have received some positive feedback, which really surprised the hell out of me. All this time, I thought I was a die hard mathie, without any writing skills at all. Maybe I still am, that remains to be seen ...

Either way, due to my feedback, I have decided to make "What to do" a regular thing in mathNEWS. If you don't like it, just let me know, and I'll be sure to make fun of you in my next article. Now, on with the guide.

As I am sure many of you know, Thanksgiving is right around the corner, that is, this weekend. However, how many of you know what to give thanks for? Some of you may be thinking of thanking the government for finally sending out that OSAP cheque that they promised you 4 weeks ago, while others might be thanking your parents for finally sending out that cheque they promised you 4 weeks ago. Both are very good choices, but I don't think that they are the true reason for Thanksgiving.

Others may be thanking they're professors for giving them a B on an assignment they thought was surely on a C, while still others might be thanking the universe for getting chosen for co-op first time around. Again, two very good reasons, but those are still not the real thing to be giving thanks for.

I'm sure you are all dying to know what "the real" thing is, so, I will ask you all to check the title of the article and you will find the answer: OKTOBERFEST. Let me try that again: OKTOBERFEST. Better. That's right, Oktoberfest is the one real reason for Thanksgiving. Without Oktoberfest, what would you do? If you read my first article, you will recall that not thinking is the absolute best thing to do, right? Wellllll, that is what Oktoberfest is good for!! No thinking!! Oktoberfest is the best reason, bar none, for getting absolutely smashed out of your mind!! You don't need to think of an excuse for being drunk, as the only explanation needed is found on any good calendar: Oktoberfest.

An example. It's Oktoberfest. You are dressed to the nines in your lederhosen, and you are officially drunk (by officially, I mean that no amount of Listerine mouthwash or Excel gum will get rid of the smell of alcohol on your breath for the next 72 hours ... As usual, just when you think that you are having the best time of your life, you realize a problem ... your bladder has been doing its imitation of a rapidly filling hot air balloon, with a clever substitution for hot air. This of course wouldn't be a problem, except for the (obvious) fact that 16 of your closest friends (whether they were or not, if they see what is coming up next, they will be ... have experienced the same, strange phenomenon. This phenomenon has led them, like you, to the washroom, with one difference: they were led there sooner.

Now you are standing in a line of what can't be in any way possibly less than 500 people (or at least it looks like 500 people ... you are drunk after all $\ldots$ and you are at the very back. Even if this line were to move at the speed of light, you would not have enough time to get to the washroom in time, so you do what every other intelligent student would do: you innovate. Innovation in the job market is great, and in sex even better, but when it comes to innovating on the location for urination ... well, they haven't quite measured the benefit of that.

So, you think quickly, and your innovative mind comes up with ... the great outdoors!! If it is good enough for the beavers and the monkeys, it can be good enough for the grand lederhosen wearer!! And so, you rush outside, and low and behold ... a parking lot!! You rum as fast as your excessively bloated bladder will let you until you run headlong into an object. Uncaring, and unfeeling, you rip off the buttons on your lederhosen, and let loose on the object you just hit (this is where it gets interesting ... Little did you know that the object you hit was (naturally, could it be any other way?) ... a beautiful newly shined cop car. As you stand there, trying to improve on the wax job with a new polymer of your own, none other than the proud owners of that car emerge from the neighbouring building, and begin to yell obscenities and other really angry words that you understand half of. You start to run.

You run as fast as you can. And somehow, you escape. And collapse in exhaustion and relief in a bush somewhere. You wake up the next morning, and all you can think about is how stupid you were, but, don't worry. It's Oktoberfest after all, and that is a good enough excuse, isn't it? Of course it is. Now, a few things that might help you next time. Donuts. Bring donuts. Now matter how much those wonderful officers are pissed off (sorry for the pun ... throw some donuts, and give yourself a little extra time. Secondly, a megaphone If you find that your 500 friends in front of you are too slow, use the megaphone and announce free beer; that should hurry them fine. Lastly, a needle and thread. For crying out loud, you ripped you lederhosen!!

So please, keep these things in mind as we approach another Oktoberfest, and remember, give thanks to those generous Germans, who were so kind to give us this excuse for drinking. Until next week, stay apathetic, and don't think ... you might hurt something. Have fun, and be responsible (snicker, snicker).

## Mr. Minotaur Man - Garth Newton mathNEWSquiz \#2

## Questions that won't be on your midterm

Um , hi, everyone. I'm a little nervous about being here this week, given some of the reactions that I've had about my last Squiz. I assure you that this week's questions are going to be rather easier (or at least better-known) than last week's.

What were last week's answers? Not telling! After all, you've still got a week and a half to come up with them and submit them to mathNEWS. That's right, both last week's and this week's answers are due at 6:00 on October 19 ${ }^{\text {th }}$, either in the BLACK BOX (if you can find it, since it seems to have been displaced), our mailbox in the MathSoc office, or by e-mail to mwalsh@uwaterloo.ca.
So now, this week's kinder, gentler Squiz ...

## Merrie Olde England

1. Name the three Germanic tribes from whom the English are descended.
2. How many of Henry VIII's children succeeded to the throne?
3. Which English king barely spoke a word of English?
4. To what political office was Sir Isaac Newton appointed?
5. After England entered World War II, how long did Canada wait until it also declared war on the Axis?

## Stars in the Sky

1. What is the Morning Star?
2. What do the constellations Draco, Bootes and Ursa Major have in common?
3. What is the brightest star in the sky (in the Northern Hemisphere)?
4. What colour is Betelgeuse?
5. How can you tell a star from a planet in the night sky?

## And All That Jazz

1. Who had the nickname "Satchmo"?
2. Glenn Miller was one of the most noted Big Band leaders. Why did he dissolve the Glenn Miller band in 1942?
3. Several of the early blues singers (for example, Blind Lemon Jefferson) were blind. Why was this?
4. Who wrote at the top of each of his compositions, "Ragtime should never be played fast"?
5. Paul Desmond was the sax player for which four-piece cool jazz combo?
$\mathrm{OK}, \mathrm{I}$ hope that people find that a little more reasonable. Take care, everyone, and good luck!

Matt "So-Krates"

## Spermatikos Logos \#2

Surprise! Another issue already, and another logic problem. You're probably not going to spend your long weekend slaving away over some mind-boggling convoluted monstrosity that I've created, so I've tried to make this one a little more straightforward. Well, the other reason might have something to do with the onslaught of tests I've come up against. In case you didn't know, I'm an Artsie, so yes, I've got midterms already. (I can hear you sniggering, just stop it already, I know where you ... well, some of you ... At least I don't have to stay up all night slaving away over CS assignments. No, instead I stay up half the night trying to come up with some idea for a mathNEWS column.) Anyway, I hope you're still working on last week's problem, you've got until October $19^{\text {th }}$ to submit your solutions to that one and to this one. As usual, the submissions go in the BLACK BOX, on the wall across from the comfy lounge (at least it used to be on the wall) at $6: 00 \mathrm{pm}$. (After that, apparently, they steal the box so you couldn't submit anything if you tried.) And if our triumvirate of editors are feeling less masochistic next time, maybe they'll even come up with some sort of prize for the wimner. Greed overcomes apathy, right? Okay, okay, I'll shut up now and get going with what you've all been so eagerly (I'm dreaning, I know) waiting for.

## Answers to Last Week's Problem

Sorry, try again. Really, I'll have them for you next week. Or else you can storm the MathSoc office on Production Night and ... Hey! Visitors! Neat! Food for my demented mind! (hehehehehe ... )

## This Week's Problem

Okay, so it's Thanksgiving weekend. Most of you are probably going home to have some sort of food with the folks. Well, in this week's logic problem we've got something similar going on. Six people (three guys, three girls) are living together in a house, and they've decided to host a Thanksgiving dinner. Each of them has invited someone to the dinner, and each person is preparing some sort of food for the dinner. Also, the group has decided they don't want anyone to see the mess they've let the house get into during their first month at school (they probably spent more time in the Bomber than at home). So they divided the chores between them. Can you figure out each person's full name (guys are Kurtis, Leonardo, and Marcel; girls are Jennifer, Natasha, and Persephone; last names are Jameson, Kirnaghan, Lawrence, Madison, Novak, and Phillips), chore they did (dining room, living room, bathroom, dishes, floor, and groceries), food they made (turkey, stuffing, cranberry sauce, squash, bean salad, and pumpkin pie), and the relationship between them and the person they invited (mother, sister, cousin, boyfriend, best friend, and former roommate)?

1. The six housemates are, in no particular order: Kurtis, Mr. Phillips, someone's cousin Bob, the person who washed the dishes, the person who baked the pumpkin pie, and the only person whose first and last names have the same initial letter.
2. Natasha's boyfriend arrived at the house early to help set up for dinner.
3. The other non-relatives were both invited by guys.
4. Early in the afternoon, Marcel walked into the kitchen without looking, and nearly slipped across the wet floor that Ms. Novak had just mopped.
5. At the dinner, Persephone was asked to serve a second helping of her delicious garlic stuffing to the guest of her housemate Kirnaghan.
6. Leonardo continually interrupted the person who was cleaning and dusting the dining room, to make sure everything was done perfectly.
7. Ms. Madison (not Persephone) sat at the table beside the person (not Leonardo) who cooked the spaghetti squash.
8. The person who prepared the turkey has allergies to dust, so opted instead to wash the dishes.
9. Jennifer's mother arrived at the house after the sister of the person who bought groceries (not Jameson).
10. The person who made the cranberry sauce from scratch, avoided the kitchen when not cooking. (Note: this includes putting groceries away).
11. The person whose friend Beth came from out of town, ate dinner beside the person who cleaned the living room (not Kurtis), and across from the former roommate (Bill) of the person who cleaned the bathroom.
12. Mr. Jameson's housemates asked him to make his zesty bean salad for dinner.

As usual, if you have any questions or comments about this or any other logic problem, feel free to email me at gngarbet@uwaterloo.ca

Gigi Garbett

## lookAHEAD

| mathNEWS |  |
| :---: | :---: |
| October 9 | Issue \#3 says "Hey, baby" |
| October 19 | Issue \#4 production night 6:30pm, MathSoc (MC 3038) |
| October 23 | Issue \#4 gets it on |
| Miscellaneous |  |
| October 10 | The day we all realize what we were put on this Earth for |
| October 11 | The day we all realize that jello-wrestling isn't really going to contribute anything to the planet Earth |
| October 12 | Thanksgiving |
| October 13 | The day our body crevices are all finally jello-free |

## mastHEAD

## Papa's Got a Brand New Markup

Hey kiddies, Matt here. Yes, this makes the third issue in two weeks, perhaps out of some twisted desire to make up for our apparent slow start this term, but mostly because we're stubborn.
After several years of everyone mathNEWSy bitching about the production system, someone has finally gotten up and done something about it. My co-editor Richard Bilson has spent many moons hacking together a replacement, and that went into Phase 1 tonight. Which means that I'm busy unlearning ${ }^{A} T_{\mathbb{E}} X$ and learning our new $m \mathrm{NmL}$ - that's the mathNEWS Markup Language. Calloo! Callay!
That's right, we're pioneering a new age of mathNEWS here ... Our liardy band of volunteers who are sharing this historic evening, along with their take on the real reason that the fuse blew in the C\&D blew on Production Night, are Garth Newton (A clever wiring job by Pete to get his ATARI working), Peter Lizak (The electric circuits couldn't handle all the e-mails being sent back \& forth between all the MathSoc joint council members), Damian Gomes (The Comfy Lounge was empty and the math building was not witnessing any action, so something luad to get blown), Greg Taylor (To provide a mastHEAD question), Michael Thorsley (I don't know, but somehow it was Chris Buchauan's fault), Gigi Garbett (Stop staring at me! ... What are you all looking at? I was right here the whole time, I tell you!) and John Swan (I guess those new renovations have finally caught up with them ... it was only a matter of time ... ).
We'd also like to thank Marion at Graphics Services for the usual fantastic job that she's done turning one copy into several hundred, and to the person responsible for the BLACK BOX not being on the wall much anymore ... you know who you are. And I'd like to dedicate this issue to the unnamed SDS major that I met at the bus stop last Friday, just 'cause.

Chadwick Severn (Hamsters) Richard Bilson (Well, $m \mathrm{NmL}$ broke everything else ... ) Matt Walsh (The joys of EST)

## Solution to Issue 500's gridWORD




Across

1. Molten rock
2. Verdi opera
3. One who rejects apparel
4. Tragic king from Shakespeare
5. Tragic king from Sophocles
6. Rare Atlantic fish
7. Member of Russian imperial cavalry
8. Opposite of yin
9. Aeneas' girlfriend
10. Unit of speech
11. In favour of
12. Like swine
13. Windpipe
14. Pacific atoll, famous for its swimwear
15. One of a list
16. Spanish friend

## Down

1. Purple
2. Unspecified person
3. Obligatory
4. Slowly and gracefully
5. Bean curd
6. Ill-conceived code
7. Fry
8. Fastener
9. A rogue or scoundrel
10. Remnant of combustion
11. Like canines
12. Hamlet's girlfriend
13. Left-handed liquor
14. Province, or town in California
15. Where artifacts are kept
16. Metric unit of a sonnet
