

# math NEWS

Volume 104, Issue 4

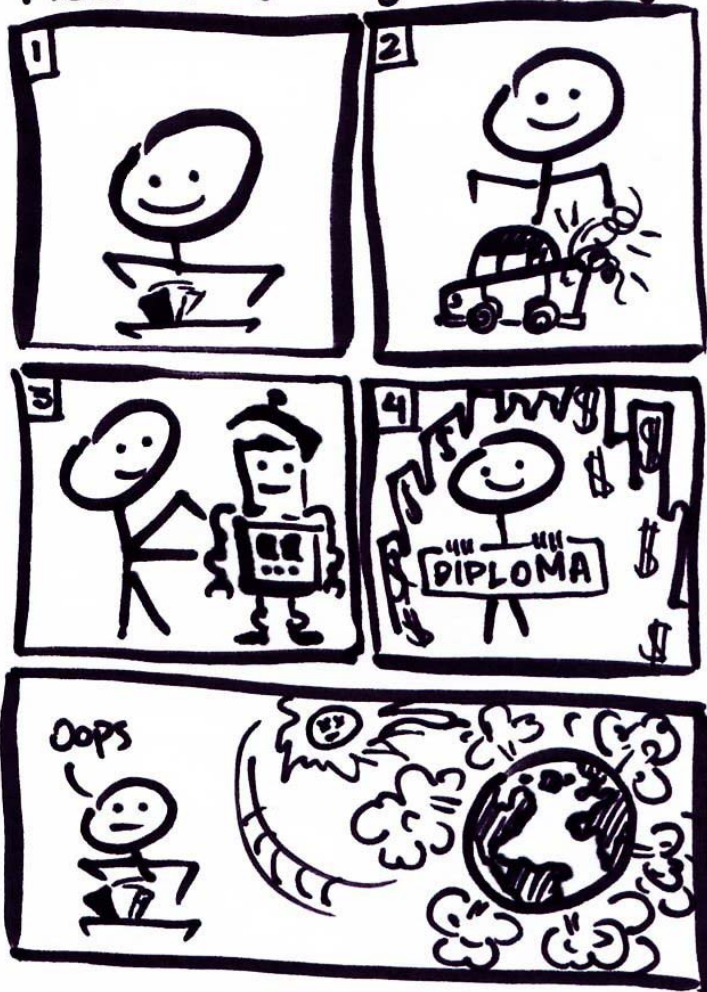
Friday, June 29th, 2007

the lives of UW students...

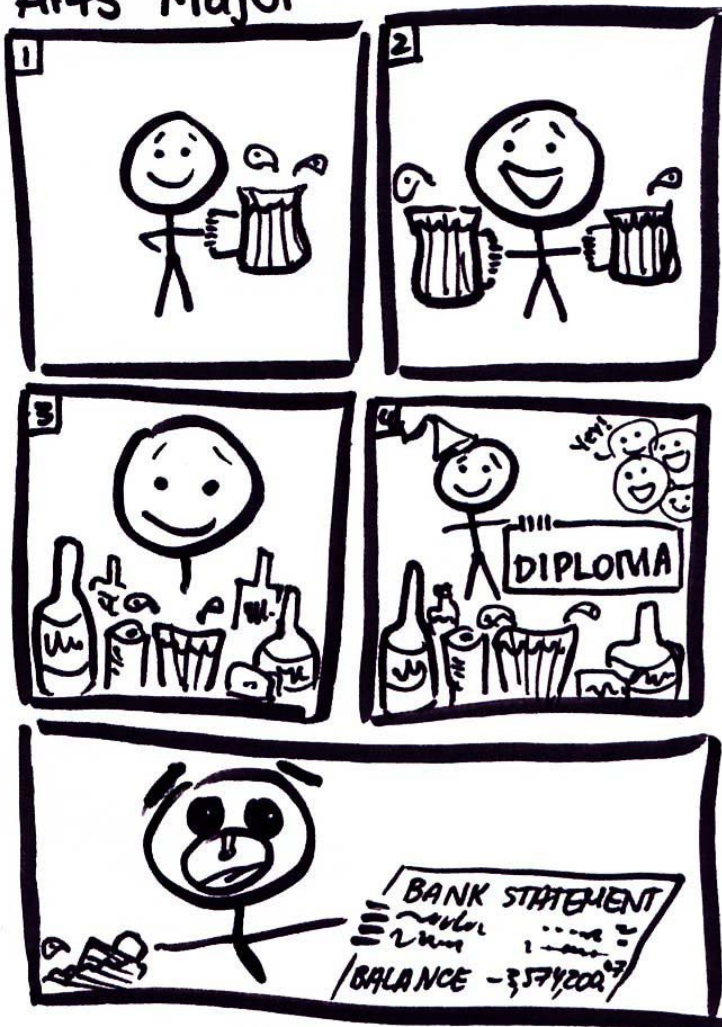
Through the Years

Finkels, Nadz

Mechanical Engineering Major



Arts Major



## lookAHEAD

### mathNEWS

June 29	Issue #4 gets its groove on
July 09	Production Night #5 6:30, MathSoc (MC3038) All must attend!
July 13	Issue #5 lurks in the shadows

### Math Faculty

Questions about what some of these mean? See an academic advisor!

June 30	Open Enrolment for Fall 2007
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### MathSoc

Thursdays	Movie Nights
July 05	Bridge to Terabithia
July 12	"Epic Movie"

### MGC

Wednesdays	Pizza Days
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### CECS

**Assuming Jobmine does not crash**

Continuous Phase Ongoing

see [www.cecs.uwaterloo.ca/students/datesF06.php](http://www.cecs.uwaterloo.ca/students/datesF06.php) for details

### Student Awards & Financial Aid

July 13	Last day to submit Spring Undergraduate Appeals
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### Feds

see [feds.ca/events](http://feds.ca/events) for details

### Miscellaneous

July 1	Leibniz's Birthday
July 1	Canada Day
July 4	Fisherman's Day (Marshall Islands)
July 11-13	The New E3

## VPAS Sez

Alright, we've made it through 2 months already! Just one more to go! In the meantime, here's some stuff coming up:

- Canada Day! If you still don't know what you're doing this Sunday, MathSoc is still looking for more volunteers for the *Children's Fun Fest*. If you're interested, just see MathSoc, or email [canadaday@mathsoc.uwaterloo.ca](mailto:canadaday@mathsoc.uwaterloo.ca). If you don't like children, then you can always help out in other ways by checking out <http://www.canadaday.uwaterloo.ca/>
- Richard Stallman, the founder of the Free Software movement, who is ultimately responsible for everything GNU (the GPL, GNU/Linux, etc) is giving a talk for the Computer Science Club on July 6<sup>th</sup>.
- Pints With Profs is coming on Thursday, July 12<sup>th</sup>, so get out there and invite your professors! It will be at 4pm in the Bomber. The event will be all ages, so even if you can't drink, there's nothing stopping you from inviting your Calc prof, and trying to *grease the wheels* for that midterm you didn't study for!

The End!

Mark Jackson-Brown  
Vice President, Activities and Services, S07

**Caution:  
DO NOT READ!**

## mastHEAD

Hee ho, me mateys! Seeing as how that includes no one (sigh), a hee and a ho goes to everyone else! *mathNEWS* is here, so you better snuggle close with a loved one and read all of the *mathNEWSy* goodness that abounds inside. Our beloved production crew was psyched because their midterms are now mostly over and they have no will power left to do school work! So instead, they're putting their efforts into angst-ridden, bitter rants. When they all combine we have *mathNEWS*!

Tonight we asked our production staff "How many classy ninjas does it take to screw in a light bulb?" Submitted for your approval are their responses: Robert '42' "None, ninjas don't screw, they ninja"; Richard "2, one to screw it in, and another to buy a new one after the pirates destroy the first one"; Evan "5, but they have to be the ones from You Only Live Twice"; DanS "NAN, there's no such thing as a 'classy' ninja. Instead of taking courses, they ninja"; Dan G "3, light bulbs are hard to satisfy (personal experience)". Such words of awe-inspiring wisdom have never before been heard, or in this instance read. I'm assuming you're reading this, otherwise I'm really confused.

*mathNEWS* would like to take some time to thank people using words and heartfelt sentiments. Thanks goes to midnight, when the Spirit of Why Not comes around asking why no one has called the Ghostbusters on its ass yet. Supreme gratitude is extended in the direction of Graphics, they are the true reason that the earth doesn't fly into the sun. Adult diapers for making older people with problems feel degraded and child-like. Finally, we'd like to thank evil for giving us reason to fear going outside.

Michaelangelo 'AngelED' Finistauri "i, the root of negative one since ninjas are imaginary"

Michael 'PerkiED' Perkins "none, only Central Services staff are permitted to change lightbulbs"

## Movies rock

Hello Movie viewers! In case you didn't know, one of MathSoc's many, many services is showing movies every week!

Since I'm taking 6 courses, have no volunteers, and run a club on the side, I've been showing a single movie in the Comfy Thursdays at 9PM, rather than the usual double feature. Last night I showed Little Miss Sunshine, and thanks to those who kept me company.

Next week I'm going to show Bridge to Terabithia and "Epic Movie" will be shown the following week. Hope to see you there!

The Movies Guy

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Hack and Slash: Michael Perkins and Michaelangelo Finistauri

## CSC Prez Sez

*Spring 2007 — Talks for Nerds, Guys that Matter*

It's your friendly neighbourhood Computer Science Club President here, and boy do we have a surprise for you! Somehow the hobos who inhabit Room 3006 have roped a distinguished lecture series of their very own!

First up: On Friday, July 6<sup>th</sup> 2007, Richard M. Stallman, founder of the GNU project (recursive provider of almost every awesome piece of software in your UNIX clone) and the Free Software Foundation (fighters for life, liberty and death to proprietary software) will discuss the state of copyright in our ever electronifying world. Come to Arts Lecture Hall room 116. Bring your friends. Bring your friends' friends. Even bring people you didn't know the day before! It starts at 4:30pm, and we hope to see you there!

And remember, we also have Bjarne Stroustrup, creator of the world-famous C++ Programming Language (established 1983) showing up on July 17<sup>th</sup>. We hope to see you there as well.

Gaelan Anthony D'costa

## Why you should love co-op

Congratulations, you've graduated! You spent the last few years working hard and now the world is yours for the taking! There's only one problem: you're one of the fifteen people in the faculty that isn't a co-op student. I hope you have some leftover cash from your summer warehouse job because, now that you're out of school, no one knows who you are. There are some things you can do:

- Use Monster and Workopolis. There's a chance that someone out there might use the search phrase "University of Waterloo math"
- Tell everyone you meet that you went to UW. That reputation is worth something!
- Learn to code. Every job in the world requires at least 2 years of C++ experience.
- Talk to other UW alumni. They were most likely in co-op and can help you with your resumé. Once they stop laughing, that is.

Remember to apply to all the companies your co-op friends worked at. Chances are, if they were willing to take on UW co-ops, they might want some UW grads. If all else fails, you can always ask your warehouse manager for a desk job.

Gee of x (aka regular student #5)

## Insensitive sensitivity training

*My experience with OLT*

Last term I went to orientation leader training and one of the seminars was on being sensitive towards people from different races, genders, sexualities and so forth. One of the people that was teaching this was very biased against the Math Faculty. On two occasions she implied that male math students hit on the women in math a lot. Seeing as how a good number of my friends in math are female, I found that this was really insulting. Call me crazy, but I highly doubt that someone who has no problem bashing the Math Faculty — for something that in my experience isn't true — should be teaching other people how to be sensitive. It just seems to be insensitive.

AngelED

## Super Smash Bros. Melee Tournament

*UW Gamers to give prizes to top smashers*

A lot of you students here this summer were last here in the Fall term, and didn't appreciate the 'eclectic' tournament structure that term. Well, we've listened to the criticisms, and we're finally giving you what you want: items OFF!

Coming Monday, July 16, in the SLC Great Hall. Some rules:

- \$5 optional entrance fee (if you don't pay, you can't win)
- Top 4 paying contestants win prizes (EB Games gift certificates)
- 1 on 1, Swiss Round Robin (Triple Elimination)
- No items
- Stock 5

For further information, check out our website, [www.uwgamers.org](http://www.uwgamers.org)

UW Gamers Dude

## Dan Swartzentruber wrote this

If you are reading this, you are most likely either a student who's bored in class on Friday morning, a prof who came to see if any of the new jokes you tried out got quoted in *profQUOTES* so that you know whether it's worth repeating that joke every time you teach that same class for the next 15 years. You; however, could also be someone who entered my name into a search engine and happened about this on the *mathNEWS* website, probably a potential employer or maybe even a potential girlfriend (heh, yeah right). Maybe I even decided to run for some sort of political office and you're a reporter trying to look for information regarding my sordid past.

For this purpose, I would like to abuse my position as a writer for *mathNEWS* to address those of you in the second category. I, Dan Swartzentruber, am a very dedicated and skilled worker with a great sense of humour, and I think that most social programs need better funding. I am very skilled in almost all areas of computer usage, possess an irresistible, awkward cuteness once you get to know me, and am a strong proponent for peace around the world. I type 300 words per minute, have a personal net worth of \$3.2 Billion, and have such a code of ethics that I would rather take the fall and admit my mistakes up front than be dishonest and try to cover things up. So all in all, I am super great, and probably the best person you will ever meet. Also, this article is probably all the searching you need to do for me online, there's no need to bother looking elsewhere, especially anything else from [mathnews.uwaterloo.ca](http://mathnews.uwaterloo.ca)

Dan Swartzentruber

P.S. Vote for me

## Waste of time

This  $\pi$ , is  $\pi$ , a  $\pi$ , good  $\pi$ , way  $\pi$ , to  $\pi$ , keep  $\pi$ , an  $\pi$ , idiot  $\pi$ , busy for  $\pi$ , 20  $\pi$ , seconds  $\pi$ !

Now read without the word  $\pi$ .

**If you can read this then you  
don't need glasses**

## profQUOTES

So I hope no one remembers what I said last time.

Bodmann AMATH231

(Of *profQUOTES*) I guess I'm going to have to be careful of what I say...

Bodmann AMATH231

Gauss and Stoke's are integrals of derivatives... derivatives of deriva... integrals of... whatever.

Bodmann AMATH231

Just throw your hand up, and don't worry — I won't fail you.

West AMATH250

[Suppose] you had a swing set inside a laboratory in a vacuum with no dampening or friction.

West AMATH250

Like Nike: Just Laplace it.

West AMATH250

'Slurping-in' data is a technical term.

Lopez-Ortiz CS240

I'd be counternormative if you kicked me in the shins and I blew up your home, wiped your bank accounts and kicked your cat.

Ennis PSYCH253

[After long explanation about why it's complicated] It turns out that implementing this is really hard.

Lopez-Ortiz CS240

Prof: If you can't do this kind of stuff, then I don't know what you're doing in this class.

Class: \*chuckles\*

Prof: Honestly.

Class: \*laughter dies\*

Bergeron STAT340

## Bug of the Fortnight

*Exceptionally bad code!*

An important notice for our regular readers: Bug of the Fortnight is switching code formats. This means that in general you will expect to see various absurdities in C/C++ code, since there are a thousand and one ways to incorrectly increment loops in C++. We will; however, from time to time change languages and use something more interesting (Lisp, Perl, or Basic [*Basic more interest than C/C++?* — *AngelED*] come to mind).

The following code will generate two mathematical sets of integers and copy values that intersect both sets into a result set. Can you spot the horrors of code here?

```
#include<stdlib.h>
#include<stdio.h>
```

```
void ExpandNewValue(int* pFrom,int iValToAdd)
{
    pFrom = new [sizeof(pFrom)+sizeof(int)];
    pFrom[sizeof(pFrom)] = iValueToAdd;
}
int main()
{
    int* pSetOne = NULL;
```

Ok back to the boring CS241 stuff...

Naeem CS241

[About the midterm] This requires a little bit of thought... We're not going to give you something like this.

Bell CS241

[Instructions to Midterm] No books, notes, calculators, or electronic devices of any kind (eg. cellphones) are permitted. Reading tea leaves is strictly prohibited. You are not allowed to use any tanks, submarines, or humvees. Eyes must be worn on the inside front part of the head.

[Student] If I had a tank would you be in a position to stop me?

Marcoux MATH146

So I'm going to proposition you...

Marcoux MATH146

'Whence': you're only allowed to use it once per week and today's the day. It's a bummer I can't use it for the rest of the week, though."

Marcoux MATH146

Of course, reasonably, you shouldn't be picking numbers like 572 and *e*. You should pick more reasonable numbers. Like 2.5 and 4.

Wolczuk MATH138

How am I doing for time? I have 1 minute... [Writes "... the integral diverges." on the board] Did I mention you can't do that on tests?

Wolczuk MATH138

*Has your prof said something quotable? Type it up and send it to mathnews@student.math.uwaterloo.ca, or write it down and drop it in the **BLACK BOX** (located on the MC 3<sup>rd</sup> floor, between the Comfy and the C&D).*

```
int* pSetTwo = NULL;
int* pIntersectSet = NULL;

for(int i = 0 ; i <= 100;i++)
{
    ExpandNewValue(pSetOne,rand());
    ExpandNewValue(pSetTwo,rand());

    if (pSetOne[sizeof(pSetOne)] ==
        pSetTwo[sizeof(pSetTwo)])
        ExpandNewValue(pIntersectSet,
            pSetOne[sizeof(pSetOne)]);
}
for(int i = 0 ; i < (sizeof(pIntersectSet)/
    sizeof(int));i++)
{
    printf("Intersecting value %s",
        pIntersectSet[sizeof(pIntersectSet)]);
}
return -1;
}
```

James Simpson

## The MUDPit

*Returning from a brief midterm-induced hiatus*

UW-MUD v 0.3 beta

Enter, Math Student, and choose your destiny.

You are in the basement of the MC, writing a CS midterm.

> inventory

You have 5 pencils, a Pink-Tie-bestickered calculator, and your trusty eraser.

A CS student casts "Question Regarding The Exam"!

A Proctor drastically reinterprets Question 4, rendering your work useless!

Resist Anger: failure

In a blind rage, you attack a CS student with your trusty calculator!

Damage: 100 (physical)

A CS student is dead!

You have gained 2,718 experience!

A Proctor is angry, and charges at you!

> leave room

In haste, you leave the room.

> look around

You see a large door and a Maintenance Engineer.

> look door

The door is marked "Warning: UW Maintenance Tunnels".

> look janitor

A politically correct MUD program is appalled at your demeaning language!

> look Maintenance Engineer

The Maintenance Engineer is performing routine maintenance.

> stroke chin deviously

You concoct a brutishly pugilistic plan.

You sneak up on a Maintenance Engineer.

A Maintenance Engineer says, "Who's there?"

You answer him with your trusty calculator.

Damage: 100 (physical)

A Maintenance Engineer is dead!

You have gained 3,142 experience!

> loot corpse

You pick up a key.

> use key door

With a notable absence of creaking, the door marked "Warning: UW Maintenance Tunnels" opens.

An angry Proctor exits the midterm room.

> enter tunnels

You enter the Maintenance Tunnels, and close the door behind you.

An angry Proctor tries to open the door, but fails!

> mock Proctor

You indulge yourself in mockery of the hapless Proctor.

A Proctor becomes furious!

A furious Proctor casts "One-way Hash Function"!

Damage: 1000 (special)

Your body is irrevocably converted into random garbage!

You have died!

candu

**MathSoc CIF to purchase special,  
comfortable Pink Tie Toilet Paper**

## Why I really don't like KDE

*I don't like GNOME either, but that's beside the point*

- It takes forever to compile on my Gentoo box
- There are too many buttons on everything by default. I don't want to look at redundant controls, I want to look at content.
- The KDE control center seems to be organized in just the right way to hide whatever it is I'm looking to customize.
- Qt: it takes much longer to compile than GTK+. Additionally, so does every program written to use it.
- I was using it here to proofread *mathNEWS*, and it just changed my background colour. Not cool.

Richard

## Who let Cthulhu out?

*To the tune of "Who let the Dogs out" by Baha Men*

### Chorus x4

Who let Cthulhu out? Graw, graw, graw, graw.

When the cultists were here, the world started crumblin' (Oh no we're boned)

And mankind's reign will fall (Oh no we are boned)

I hear the cultists "start with the feasting" (We are so boned)

And the old one rose to the call

The world was mowed down

### Chorus x4

I see R'lyeh rising, dead ones ashore, damned Necronomicon  
Come forth Hastur, come Hastur: Beat your half-brother back into hell

I tell myself we all gwin to hell now (Oh no, we're boned)

You cultists calling him master — hey! (Oh no we are boned)

Shut up dummy "Dis god, will kill all!" (We are so boned)

You go insane dere and I will be eaten

And death will die out.

### Chorus x4

Say, a god, he is nuttin', if he don't have a cult

Cthulhu leave us alone, Cthulhu leave us

A god, he is nuttin', if he don't have a cult

Cthulhu leave us alone, Cthulhu leave us

### Chorus x4

I see R'lyeh rising, dead ones ashore, damned Necronomicon  
Come forth Hastur, come Hastur: Beat your half-brother back into hell

(Rapping) Wait for y'all da gods, the war is on now I got my elder sign, I got to run and hide.

Do you see the rays comin' from his eyes? Stop eating me, fiend!

That fishy-man that's breeding 'round town?

Nyarlathep speaks and I can't stop walkin', we in a line that will get eaten that's why they call me morsel.

'Cause I'm a man beneath them, when I see them I go  
AHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH!

### Chorus (repeat to finish)

AngelED



## Dating Advice From The Single Guy

Dear The Single Guy,

I just sorta started seeing this girl, but I've known her for a long time, it's not like she's just some girl who I picked up at the bar. I've been so incredibly happy lately, that I honestly don't know how to express this. I'd like to exclaim from the mountain tops how I could just look into her eyes forever, how saying that she's beautiful just doesn't quite do her justice, and there is in fact no word in existence that could possibly describe her. How I have never been as happy before as I am with her, how when I hold on to her I wish I never had to let go. All in all, my problem is that I have so much I want to say to her, and yet I'm just so awkward and bad with words that I don't even really know what to say or how to do it.

—Daniel

Well Daniel, before going into any details here, I'd like to make a point about that shouting from the mountain tops. If you think about it, you don't often find all that many people on or around a mountain's peak. With the inverse square relationship with sound intensity and distance, odds are pretty good no one is going to hear you. If you want to exclaim it to the world, then perhaps you should do it from the valley. People are actually far more likely to be down there to hear it. That all being said, instead of trying to get across how you feel, why don't you *not* try to tell her? You see, putting yourself all out there like that, other than sounding really weird and creepy, puts her in complete control in your relationship and trust me, no matter how awesome she is, it won't be pleasant if you're totally whipped. Remember that power corrupts. If; however, you're a fool, and you decide not to listen to me, perhaps you could try taking that letter you wrote to me, add a few more touch-ups to it, and then find a way to get it published somewhere you know she'll read it (either online or in print). This way you get the effect you had of "yelling from the mountain tops" (unless you really did want no

one to hear) and you basically get your point accross as best you can. If what you say is true, there's nothing you can do short of making up new words.

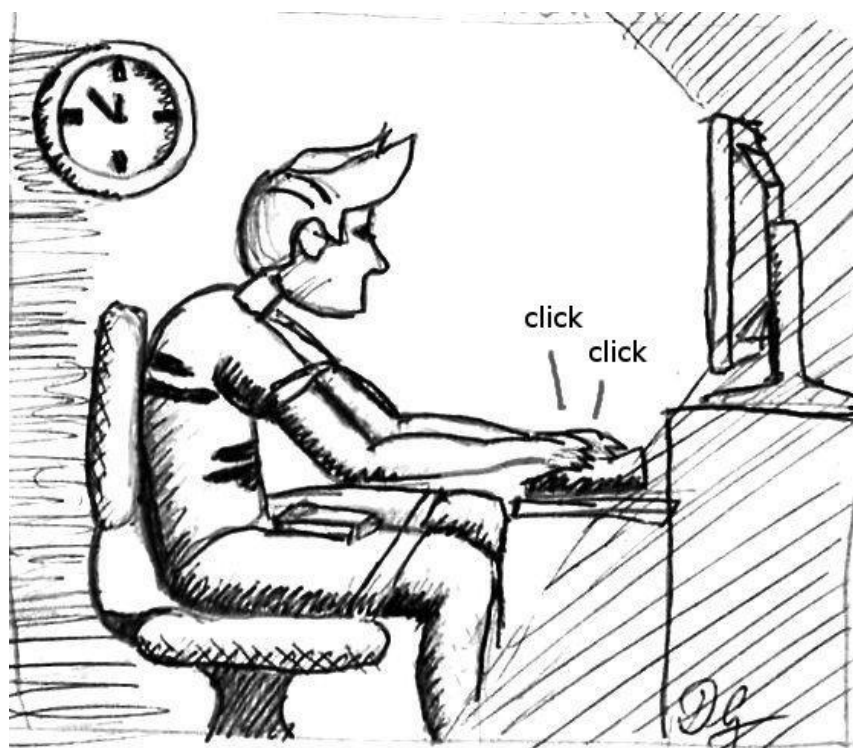
Dear The Single Guy,

The new Harry Potter movie is coming out very soon, I don't think I need to tell you when, I'm sure you're going to be as excited about it as I am. Anyway, I really want to dress up for opening night, I've already got my costume picked out for what I want to wear: my full get-up of Quidditch gear, including my little golden snitch which actually flies. Anyway, I think he who must not be named cursed my girlfriend, because she says that she won't come to this movie with me, which will be the 2<sup>nd</sup> best thing to happen all year (next to the new book) if I go like that. Should I dump her to get away from his evil corruption, or try to find some way of removing it from her?

—Sebastian

No. That's it, the answer is just no. In fact, your girlfriend has things completely right in this case. In fact, she should just dump you for being so far beyond nerdy that it's just sad (known as fanboyism). If you want any chance of ever having any sort of relationship you need to be able to put her ahead of your stupid little costumes. In fact, I'm so disgusted with your attitude that I'm just going to give up on you now. You can't even pick something proper to obsess over like Star Wars. No, you had to pick Harry Potter. Oh, one last thing, "He who must not be named?" Seriously man, it's fiction, he's not real so he can't affect you or anyone in this world. Also his name is Voldemort. See that? Nothing bad happened. Voldemort, Voldemort, Voldemort, Voldemort, Voldemort. *[If you say it ten times in the bathroom with the lights out, J.K. Rowling will cast Lawsuitos Painfullous on your ass. — AngeLED]* Oh no, still nothing. Alright, that's enough.

The Single Guy



```
> SUBMIT CS246 ex2
5 minutes until deadline.
Submitted successfully.
```

Yes!! FINALLY!

CS 246 NEWSGROUP

```
Assignment 2 Changes 11:50pm
- Q1 will not marked
- Implement Q2 with references
  instead of pointers
- There was an error in the
  course notes related to the
  assignment. It has been fixed.
  Good luck finding it!
- We're giving you an extension.
  It's due in 2 hours.
```

## CS Log

As a CS student I find myself often in one of the labs, so I was amazed to find a handwritten note as I was logging in one evening. It was so out of the ordinary I had to transcribe it for you, fellow *mathNEWS* readers. It seems that a desperate student was working on a project that was due the next day and decided to log his thoughts in a diary, that I will relate to you currently.

6:00PM

Dinner, Check. Project Spec, Check. Few hours to go until this thing is due, Check. Time to get started!

7:00PM

Finished main body of code. Looks like I'm going to go home early tonight! Now to see if it compiles.

7:05PM

{expletive} 623 compiler errors.

8:30PM

My code finally compiles, time to run it in it's perfectly typed up glory.

8:31PM

{Long string of expletives, that this transcriber can't begin to type out... something about babies.}

Output.. makes... no sense... where could I have gone wrong!?

I begin to look through the various functions for a clue.

10:00PM

Madness sets in.

10:15PM

{This entry is just random strings of gibberish too time consuming to type out except at the end where it reads...} Bwhahahahahaha!!!! I've found it! {Presumably that was maniacal laughter.}

{At this point the script in which the paper was written changes to a brown drippy ink from the crisp mechanical pencil it was before. It's all smudged, in some undecipherable tongue, with burnmarks in the margins until it changes to very clean block lettering.}

1182595515

Intelligence Invoked. Code is error Free. Returning to Caller

1:00PM

I'm done! It worked! {more evil laughter} I'll submit the code and be on my merry way.

Chilling no? What happened in those 3 hours, why did the font change? Why in science's name do I recognize that as Unix Time?! I guess we'll never know.

42

## Deaths in comfy during renovations

Recently the Comfy Lounge and the C&D had new lighting installed to make the spaces more accessible for the math student body. During the installation several of the workers were injured or killed by the bacteria in the lounge. Apparently when exposed to light, be it natural or not, the bacteria retorts by viciously attacking the source.

*mathNEWS* had an exclusive interview with one of the deceased, who had no response to all of our questions. The police investigating the scene believed that the deaths were entirely preventable with a Super Soaker and soapy water. Cleansing by fire had been mentioned, but the university has not committed itself to any course of action.

AngeLED

## Famous hexadecimal constants

Throughout the relatively short history of computing, some numbers have risen to prominence. Some of the more bizarre are listed here.

**0x5f3759df:** This one is attributed to John Carmack of id Software fame. Its fame comes from a gem hidden in the bowels of the Quake3 engine:

```
float InvSqrt(float x) {
    float xhalf = 0.5f*x;
    int i = *(int*)&x;
    i = 0x5f3759df - (i>>1);
    x = *(float*)&i;
    x = x*(1.5f - xhalf*x*x); return x; } This
computes 1/sqrt(x) in a very devious way.
```

**0x5f375a86:** In response to the above, Chris Lomont at Purdue analyzed the technique rigorously. His paper "Fast Inverse Square Root" showed that this constant outperforms the original (albeit only slightly).

**0xcafebabe:** Used as a magic file number in compiled Java bytecode.

**0x10003:** RANDU, an early linear congruential generator, used the recurrence  $V_{j+1} = 65539 V_j$  to generate random numbers. This leads to notably poor behaviour; Knuth remarked in TAOCP that "its very name RANDU is enough to bring dismay into the eyes and stomachs of many computer scientists!".

**.699696699669696:** These are the first 16 hexadecimal digits of the so-called parity number, discussed by Schroepel and Gosper in Item 122 of HAKMEM.

**0xdeadbeef:** This highly humorous constant is used by IBM RS/6000 systems and Mac OS on 32-bit PowerPC processors as a magic debugging value. On Solaris systems, it marks freed kernel memory.

**0xA5A5A5A5:** Used frequently in embedded development, as the bit pattern 10100101 is easily recognizable on oscilloscopes.

candu

## So you think this is worth fighting about?

Are you one of those religious feminists who insists on saying God is female? What about one of those religious conservative (note, small-'c' conservative) types who insists on saying God is male? Why don't you guys just stop it – it sounds stupid. What does it change anyway? That's what I thought: nothing. The parts in the bible that say "thou shalt argue endlessly over God's gender instead of things like world peace" were actually taken out in the year 1276 as it turned out they had been fraudulantly added by a rogue monk writing out a bible off in his monastery back in 739. Think about this: male and female actually only mean something in species capable of sexual reproduction. Sexual reproduction requires there to be more than one existing member of said species. In order for the whole male/female thing to even be considered an argument, you have to admit that there are other gods than God, and you know what, if you're the type of person who's going to get into such a stupid semantic argument, then you should know that you are not allowed to have that happen. Don't get me wrong, I'm a fan of good religious discourse, but choose something worth fighting about.

DanS

prepared for the masses of angry feminists who he just called "guys"

## The Differential Operator

It was calculus class and Thomas was anxiously waiting for it to end. His professor was spouting nonsense again. “The differential operator is coming! It’s going to get me! Beware of the differential operator!” Thomas wished that it was prof evaluation time so that he could thoroughly, and ruthlessly bitch about his professor without ever having to worry about the repercussions.

The door was ajar so Thomas let himself in. There he saw his professor passed out – possibly due to alcohol consumption – on his desk. A shadowy figure loomed over the prof. The figure watched as Thomas crept up to his professor. Fear and possibly worry flooded the student as he assumed his professor was dead!

“Wait! You’re death, aren’t you?” The figure shook its head. “The Differential Operator?” It nodded. Thomas wasn’t sure if it was worse than death or not, but he decided it best not to find out and just fled the scene.

“OMG, WTF! I thought that you were in the MC building!” Thomas protested.

“Wait, did you just give the longitude and latitude of the MC building?”

“With respect to what?”

And so Thomas was differentiated, never to be seen again. Thus, mankind's unending struggle to avoid differentiation has the same result for all life in the elements of the reals. Oh, and his prof was just really wasted—not dead. No one were hurt in the making of this Tales from the MC. Except Thomas.

**Ad space here for sale on eBay to  
highest bidder!**

It came to the attention of *mathNEWS* that the *mathNEWS* Wikipedia entry has recently been removed despite the fact that it had content (rather than the *Imprint* entry which, look it up yourself, says only that it is a student newspaper for UW). That is entirely not enough out there, loyal readers. The student publications of this university need better entries on this site. So please, if this is your type of thing, go out there and do something about this lack of information.

DanS

Three! Three victims!  
Ah-ah-ah!

SCORE 900 TIME - 120  
PLAYER ■■■■■■ [ ] [ ] [ ] ♥-05  
ENEMY ■■■■■■ P-03

Who the hell are you?

*[Signature]*



# Going Undercover for a Coop Job

*Become the James Bond, Jack Bauer, or any other J\* B\* of Waterloo*

Like many of you, I am a mathie. Also, like many of you I need money. Unfortunately, not many people will pay someone to spend every waking (and sometimes sleeping) moment in the Comfy Lounge. That is why many of us are in co-op. Unfortunately, the co-op program doesn't like mathies precisely for our natural affinity to the smelly (but no longer dark) Comfy Lounge. Therefore, the only way to get this elusive co-op job (and the money that comes with it) is to go undercover. It is just like in a spy thriller except without the fun, coolness, or any other positive adjective you can think of. Luckily for you, I have outlined the exact actions you should take to get this co-op job (and the money). Now this guide assumes that you are reading because you have no money and therefore, bribery is not an option.

## Step 1: Undercover as an Artsie

Many mathies may have trouble with this. How can mathies even begin to imitate an Artsie? It is impossible, but you can at least try. The first step requires that you write something called a "Resumé" and possibly a "Cover Letter". The problem with this is that it is required to be written in the English language, not Java or Scheme, as you might be tempted to write. If you write your resumé in Java or Scheme, you will be discovered as a mathie and will not get any money.

## Step 2: Gathering confidential information for the resumé

Now typically, your resumé would consist of stuff that you have actually done in your life that would impress an employer. Unfortunately, you don't have anything like that (and no, playing WoW in the Comfy for 48 hours straight does not qualify) so you have to go to an artsie and ask his or her life story. Make sure that you write down everything that is not about drinking beer and getting hammered. After spending two hours and writing down absolutely nothing, go to an ES student. The ES faculty is based on resumé filler that nobody but employers give a crap about. Copy this stuff down on to your resumé.

## Step 3: Hacking JobMine encryption

Now you have to face JobMine. This is an extremely challenging feat. JobMine was developed by one of the greatest masterminds of our time. In fact, JobMine is probably the greatest software available today. JobMine allows the other faculties to navigate it with no difficulties or frustrations. However, when a mathie logs on, it frustrates them to near death (and in some cases, actual death). Now the secret to navigating this menu is patience. You must navigate through hundreds of one-option menus (with a two-minute wait time between each one) before you can get through. Somebody unfamiliar with computers will have no problem with this concept, but mathies have died trying to navigate the maze of one-option menus. Also, don't try writing a script to navigate the one-option. You will be so focused on that, that you will miss the deadline to apply for jobs.

## Step 4: Uploading your confidential resumé through the JobMine portal

Now that you've created your resumé and have successfully navigated the one-option menus, it is now time to upload your resumé onto JobMine. Now, you may be tempted to think, "JobMine accepts HTML and I'm leet with HTML, this part should be easy." If you thought that, you would be wrong. Unfortunately, JobMine hacks your HTML and if it detects any leetness at all, it jumbles it into an unreadable mess. For this part you

have to use Microsoft Word's HTML editor. This is by far the worst HTML producer in the universe. After your resumé is in the correct format, do yourself a favour, don't look at the source code. It may be enough to kill you. After doing this, your JobMine session has probably timed out so repeat step 3 before continuing. To upload your resumé, you must upload the same resumé for every job you apply to (and you are to apply to as many as possible for hope of getting at least one interview).

## Step 5: Prepare to go under disguise for The Interview

This is the most important part. This is where you have to prove that you are not a mathie. All eyes are going to be on you to see if you are worth giving money to. This is where you will need to be in disguise. You need to look like you actually belong at work. For this, what's called a suit is required. I'll let you Google that one yourself, but you will not like it in the summer time. Also, and this may be the worst part, you need to shower. If you don't shower, not only will the interviewer be noticeably disgusted, but he or she will also not give you money.

## Step 6: The Interview

This is the scary part. You are now in foreign lands. Don't be too quick to retreat to the confines of the MC building, you need to get money somehow. Your interview is in the Tatham Centre and it is extremely bright, but you will be back within the dark confines of the MC building shortly. Take a seat and wait for your name to appear. While waiting, stay away from CECS workers, they are not who you think they are. Once your name appears you enter The Interview. In The Interview, you will be asked a series of questions. Tell them what they want to hear while making it still believable. Avoid words used in this article such as "hacking" and "leetness" and you will be fine.

## Step 7: The Job

Well, you've done it! You've successfully gone undercover and got a co-op job. Now you're thinking that I've ripped you off. You're thinking that you'll have to keep up this charade for another four months. Don't worry, I wouldn't be that cruel. Remember how complicated the process was to hire you? Well, the process to fire you is similarly complicated. So you can feel free to spend all day in the corporate lounge and by the time they get around to firing you, you will have made enough money to cover you for next term. Of course, you could act the part for four months to earn even more money, but that's not recommended.

So with that said, can I have my \$25 now??? [No :D — *AngieED*]

Anonymous Coward

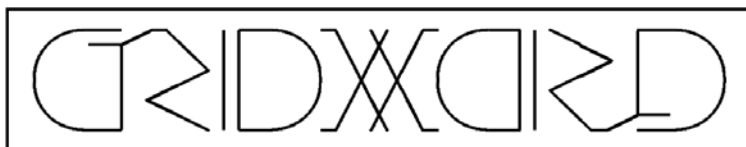
## Sudoku

*The New*

*The Old*

	9		6					
	7		9			3		
	5			3		1		2
	6	1				9		
				9				
		7				2	4	
4		3		1			6	
		9			4		3	
					7		2	

4	2	1	3	6	8	9	5	7
7	9	3	4	2	5	6	1	8
8	6	5	9	1	7	3	4	2
6	4	8	5	7	3	2	9	1
3	7	2	1	8	9	5	6	4
5	1	9	6	4	2	8	7	3
9	8	4	2	5	1	7	3	6
1	3	7	8	9	6	4	2	5
2	5	6	7	3	4	1	8	9



## Grid Clues for Terminal Condition (Unconventional)

$dy/dx=0$

nal case? (2 wds)

- A terminal case?
- Design of some cars
- Supporter for those with a terminal condition?
- Explanation
- Hurl (2 wds)
- Lying men might use one?
- Shower
- Retro hairstyle
- Mythological twin
- Detailed (hyph.)
- Fir, for example?
- Rutabaga
- Look up to
- Faulty
- Esteem
- Site for a terminal case?

$dx/dy=0$

- It helps to change a termi-

- Map
- It can give you a rash?
- Domino, for instance
- Boys' room nuisance
- California island
- Another name for solitaire
- Hot light?
- Minor change
- It exemplifies a Terminal Condition?
- Nice
- More weasely
- Broke
- It's got a terminal
- It's two orders away?
- More common name for the 'street starfish' character from the Discworld video game.

## Solutions to previous *gridWORD*

Check out the solutions to last issue's *gridWORD* at:

<http://www.mathnews.uwaterloo.ca/Issues/mn10404/ganswers.php>

## *grid*COMMENTS

All hail the puzzle people! This week we got a whole bunch of people who submitted an answer to either the Sudoku or the grid. The most correct grid this week was submitted by Jamie Pearson whose favorite incompetent duo is "Beastly and Shrieky: great plans, great technology... poor execution." The Sudoku winner was and still is Robert Burke who answered "The *mathNEWS* editors". He is a jerk, and since nice guys finish last, then the biggest jerk-face of all must come in first. Go to the MathSoc office to collect your prizes, Jamie and Jerk-Face.

This week's grid is of a more recent vintage than the ones from the last two issues. There are two sets of clues for the grid, cryptic and unconventional. I should probably give you a hint about how to do the unconventional clues so, I will give you Gridby's own explanation: "The conventional this issue suffers from a terminal condition. In every entry one of the terminal letters has been taken away. The resulting sets of letters will not be words. Oh, and be careful. The condition seems to be catching; some of the clues have been afflicted too ..."

Remember to get your solutions into the BLACK BOX before 6:30 next production night. *gridQUESTION*: How is your goose cooked?

perkiED and AngeLED

## Grid Clues (Cryptic)

$dy/dx=0$

- Unfinished sculpture has mysterious terminal condition. (6)
- Senior accepts prize containing way to start tonic water into wine? (8)
- Pardon, sir, perhaps they take us by storm? (9)
- Flatfish giving spirits to the audience. (5)
- Gar?on, I'm out of a drink. (5)
- Elevating evaluation upon audition. (9)
- Kid applies finish time and again (and again!). (9)
- For example, sugar and candy eat away in some teeth. (5)
- Worries pointlessly about circuit breakers? (5)
- Dinner ruined when tornado hit, making whirlpool. (9)
- Me? I can go crazy around a picture of me. (9)
- Enough to try a little straight off. (5)
- No rain—lack caused by terminal condition. (5)
- Little spot on golf course serves a sandwich dressing, of a sort. (9)
- State of depression with new stress. (8)

Ripest doctor who'll marry men *and* women?! (6)

$dx/dy=0$

- Writes piece on sun strokes. (7)
- He'll fly through into a crag. (7)
- Undress masculine form rendered unconscious? (5)
- Rewrites prose puzzle. (5)
- Natural tendencies in son can court disasters, at the core. (9)
- Large number are sick in kind of paradise. (7)
- A swarm of singers quits. (7)
- IBM/Lotus merger? It makes me sick. (8)
- Demonstrate pachisi to a nut. (9)
- Happy to beat a group of singers. (7)
- License to settle dorm fee. (7)
- On the radio: "Like turtles!" and "Catch up!" (7)
- Transport pure tar carefully. (7)
- Sheep breeder secured by mast gets life jacket. (3,4)
- Contract eaten by dog. (5)
- Avoid crab hors d'oeuvre filling. (5)

1		2		3			4	5		6		7		8
					9									
10										11				
12						13								
14				15				16		17				
18		19				20						21		22
23						24				25				
26						27								
28										29				