

# math

Volume 117, Issue 5

# NEWS

Friday, November 18th, 2011



*New mathNEWS production system =  
Total dragon defence for less than 1000gp*



**lookAHEAD****mathNEWS**

November 18	Issue #5 arrives on wings of flame
November 28	Writers band together one last time (Production Night)
December 2	Issue #6 descends from the sky

**MathSoc**

Tuesdays	Games Night in the Comfy at 6:30 pm
Thursdays	Special nights in the Comfy!
November 18	Coffee House
November 23	Election nominations close
November 30	General Meeting
December 2	Elections end

**CECS**

Wednesday/Friday	Rankings close
Tuesday/Thursday	Rankings open

**Misc**

November 20	Hyrule is saved
December 5	Last day of lectures
December 11	First person finishes Skyrim
December 25	Christmas
December 31	New Year's Eve

**MFCF/CSCF News**

A new Network Appliance central file server has been deployed in the undergraduate environments for both Math and CS. This provides a huge increase in I/O performance and available disk space, enabling you to keep more of your files across terms without between-term quota adjustments. All quotas have been increased to 1 GB for Math students and 2 GB for CS students.

MFCF

**mastHEAD***Huzzah!*

Brave warriors and wizards of Math, I bring you great news. Thanks to the valiant questing of !ED, *mathNEWS* has at long last lifted the ancient and foul curse of the old production system and, in its place, woven a spell of wonder and awe. No longer must we struggle in vain to write formulae in our scrolls! No more must we toil under an old, unsupported desktop publishing platform! Writers, one and all, gaze upon the new production system and rejoice!

Yet do not be so hasty in celebrating, friends, for no sooner has that evil been vanquished than another has come forth to challenge us. Dragons, dragons from the north! Great wyrms have come forth from the pits of the underworld, blasting the Fortress of MC with hell-fire and incinerating all who would stand before them. All, that is, save for a last force of valiant knights and mages, who even now make their final stand, confronting the dragons in their stronghold, driving them back to defend our realm and cleanse it of evil.

We sought the wisdom of our writers and editors to discover, for the good of the kingdom, the secret to defeating these monstrosities of legend. So, heroes, how would you take down a dragon?

theDreamer (“Magic”), tehBEDMAStEr (“Drop my pants and watch it submit.”), RedMetal (“My sunny disposition and pleasant personality”), !ED (“Laser pointer. They’re just oversized cats, after all.”), waldo@<3.LE-GASP.ca (“Take him/her to the Red Dragon Inn”), Element118 (“Hire it to find the mystery pooper”), Forked Process (“Take it down, aaaaaall the way down.”), (define this (not cool)) (“Fireball, X=197 478 212”), theSMURF (“With bugs... I mean, features.”), moment (“Impale it (on an unmatched parenthesis”), MustardMap (“Roll a 20 to penetrate the dragon.”), greygoose (“WITH MY CANE!!!one”), BalloonMonster (“Bazooka :)”) Soviet Canadian (“Red Metal {Russian Steel}”), washbasin (“a battering ram”), snippet (“Turn it into a rare disease and infect it”), CowED (“lure it into a trap... using cows”)

ScruffyEd (“Love Sign [Master Spark] ”)

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The editors need more lands: Swamp (FuzzyED), Plains (GroovyED), Forest (!ED), Island (ScruffyED), Mountain (CowED)

## Prez Sez

*Wrap it up!*

Hey Mathies! The term is wrapping up quickly with only two full weeks left of classes. These past two weeks have been busy but it's been mostly helping with Charity Ball. Here are a few other things to note.

Mentorship planning for next year is still ongoing and we are currently looking at academic mentorship structure. At the moment we are looking to have a course coordinator for each of the core first year courses. This is an undergrad/grad student who sits in lectures and works with the prof to create extra problems for students to work through to get a better understanding of the material. There will also be multiple mentors per class that run multiple tutorial sections to have students work through these problems and get assistance where needed.

On the Orientation front, math FOC selections are now closed but applications for Cross Campus FOC are now open. More information for that can be found on the orientation website. Interviews for math FOC will be taking place next week-end with the results released shortly there after. Also, Senate has decided to leave Orientation a week long.

Some work on the CnD has taken place from both the management side and the renovation side. The contract for the renovation has been signed and we should see things to be in motion during exams. From the management side, discussions about the debt of the CnD and how to reduce it has been discussed. We are looking at multiple options to reduce including raising a few prices.

The MathSoc General Meeting is fast approaching. If you have anything you want discussed at that meeting, be sure to email me it before Tuesday the 22<sup>nd</sup> of November. Also, don't forget to be in the comfy on Wednesday November 30<sup>th</sup> at 4pm to vote on the future of MathSoc governance.

And Finally, MathSoc elections are now happening for exec and plan reps for the next year. Be sure to pick up a nomination for if you think you have what it takes. Nominations are due by November 23<sup>rd</sup> and voting takes place December 1<sup>st</sup> and 2<sup>nd</sup>.

This is Andre signing off.

Andre Gomes Magalhaes  
President  
prez@mathsoc.uwaterloo.ca

## CMC Flash

*Events!*

Hello, nerds! Holy smokes, our club is actually running events. A couple weeks ago we had our MathCHALK thing, did you see the Rock Garden? No? Well, it was pretty cool. We're also having a tutorial on LaTeX soon, on how to make documents that can contain equations. It makes assignments a lot easier. Not totally sure when we're having that... maybe in a week or two, on a Thursday? Keep an eye out, we'll put up posters! We'll be at the CSC Code Party this Friday (tonight!), but we might just be there to hang out. And, you know, code. We've also started preliminary discussions on a contest for computing digits of pi, for next term's Pi Day. It's all very theoretical at this point, but if you want to help make it happen, you can stop by our club, have a cup of tea, and chat. Look at us, doin' stuff like a real grown-up club. Later, dorks!

## VPA Method Actz

*this jive ain't of da hand*

Now listen here you jive turkeys,  
Dis term as VPA gots been some bit quirky  
With changes t'orientashun dat neva' took  
And meetin's dat dun didn't quite go by da book  
Now, as de end looms near  
I try mah' hand at bein' Shakespeare  
To tell ya' all how fun it's been  
To serve as VP – oh wait, dere is still 2 weeks t'go  
Let go back t'de beginnin'  
This week I got just one thin':

Dere be a conference on Algebraic Geometry  
On Novemba' 26<sup>nd</sup> at Queen's University  
With talks 'bout sums uh squares and deir evolushuns,  
complex polytopes and polynomial equashuns

Fum campus dere be a bus dat gots been chartered  
Leavin' at 5AM and returnin' de same day 1AM. WORD!  
If yo' a mathie, both de bus and da conference be free  
To sign up, visit da PMC in deir office, in MC 3033

Bryanne Pashley  
VP-Academics  
vpa@mathsoc.uwaterloo.ca

## VPE Sez

We held a very successful Charity Ball this past weekend, raising \$1970.58 for the Ontario Federation for Cerebral Palsy! Thanks to everyone who attended and donated, to all of the sponsors who donated items for the live and silent auctions, and to Elizabeth McFaul and Chang Liu, our Charity Ball Directors, for organizing the night!

With the end of term fast approaching, we'll be holding our traditional EOT event, but this time with a fun twist: "Pints and Karaoke with Profs" will be held on Tuesday, November 29th from 5pm until 8pm at the Bombshelter Pub (in SLC). Invitations will be available in the MathSoc Office soon for students to fill out and give to profs -- students of all ages and all profs are welcome and encouraged to come! We'll be serving appetizers throughout the evening, giving students a chance to socialize with each other and their profs, and singing lots of karaoke! If your profs are good enough singers, we'll even give them some prizes!

Games nights and variety nights will continue to run until November 29th and December 1st, respectively. Additionally, we'll be hosting a 24-Hour Games and Movies Night from noon on Saturday, December 3rd until noon on Sunday, December 4th. So we hope to see lots of people out!

As always, like us on Facebook ([facebook.com/mathsoc](https://facebook.com/mathsoc)) and let me know if you have any questions!

Alex Russell  
VP Events  
vpe@mathsoc.uwaterloo.ca

## Call for Volunteers!

CS4U Day

Tuesday, December 6<sup>th</sup>

8:00 am – 4:00 pm

Volunteers will receive a CS t-shirt and free lunch! All students are welcome to participate!

CS4U Day is a computer science outreach event for students in grades 9 to 12. Students who participate in this event will have the opportunity to participate in CS hands-on activities and listen to interesting lectures from three CS profs with various academic backgrounds.

To sign up as a volunteer, contact Heather Steinmetz:

In person: DC 2119

Email: [h2steinm@uwaterloo.ca](mailto:h2steinm@uwaterloo.ca)

Phone: 519-888-4567, ext. 35144

Heather Steinmetz

Recruitment Assistant

David R. Cheriton School of Computer Science

University of Waterloo

519-888-4567, ext. 35144

## NEW! Masters in Health Informatics

The David R. Cheriton School of Computer Science is now accepting applications for its fall 2012 enrollment into the new Masters of Health Informatics program.

This 12-month coursework program is designed to teach students, with a strong technical background, how to acquire the knowledge, skills and practical experience to help solve today's complex technical challenges within computerized medicine. Full-time and part-time students will be considered for the program with the possibility of cooperative placement.

Students currently studying computer science, electrical engineering, or any other related field are encouraged to apply.

For more information on the MHI program, visit [www.cs.uwaterloo.ca/grad/mhi](http://www.cs.uwaterloo.ca/grad/mhi) or contact [mhi@cs.uwaterloo.ca](mailto:mhi@cs.uwaterloo.ca).

## Words in Rhyme

*Submitted every time*

There was once a writer who frequently rhymed  
He spoke so fast that it couldn't be timed  
He would go to *mathNEWS*  
He would pay his dues  
And to the top of the heap he had climbed

The man, now an editor, shook his head  
For a writer used "say" instead of "said"  
But it was part of a rhyme  
Which he did all the time  
Letting it slide became something he would dread

Too many "rhyme"s and a whole lot of "time"s  
RedMetal

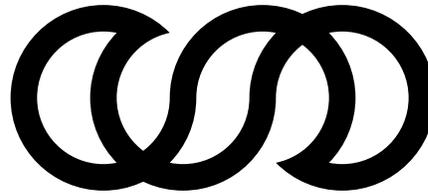
## C S C F L A S H

Greetings students, new and old! This is the Computer Science Club Flash, your fortnightly source of all happenings of obscure hours on the third floor of the MC. Here's a reminder to stop by the office (MC 3036/3037) and say hello to our office regulars! If you haven't yet joined us, membership is only \$2 per term, and gives you access to our computing services and extensive dead-tree library. We encourage anyone and everyone to join, regardless of your program or faculty. Only an interest in Computer Science is required.

The CSC and UW's Open Data Initiative will be hosting a code party starting 7 PM on Friday, November 18<sup>th</sup>. We are inviting you to join us in the Comfy Lounge (MC 3001) to develop a new API for accessing university data. The API designs which result from this code party will likely become a part of UW's infrastructure. All are welcome to attend, and free food will be served.

Calum T. Dalek,

Chairbeing Extraordinaire



Computer  
Science  
Club

## Sweet and Sour

*Sour*

The last day to drop a course with a WD penalty is Nov. 18 (TODAY). You can drop using quest, [www.quest.uwaterloo.ca](http://www.quest.uwaterloo.ca).

If you are in 1A, and it is your first time at a degree-granting institution (including UW), then you can drop a CS or MATH course up until the last day of term (Dec. 5) at noon. However, DO NOT do so on Quest. Please see your advisor: <http://www.math.uwaterloo.ca/navigation/Current/advisors.shtml>

*Sweet*

Today, some old math jokes...

1. 95% of all statistics are made up.
2. Why was 6 afraid of 7? Because 7 ate 9!
3. What did zero (0) say to eight (8)? Nice belt!
4. Geometry profs are sometimes acute, sometimes obtuse, but always right.
5. Old mathematicians never die, they just lose some functions.
6. A statistician with one foot on hot coals and one foot on ice will argue that on average they're fine.
7. Three mathematicians walk into a bar...wait, why didn't they duck?
8. Math problems? Call 1-800-( $\exp(1) * 1000000$ )mod(2718282)

Riley Metzger,  
Academic Advisor and Stats Instructor

# Rainbow Mathies 16

## *Three Hundred Too Many*

Hello fellow mathies! I apologise for my absence last issue. Between needing to make sure I don't get kicked out of my program and shooting Nerf darts into crazed, headband-wearing blood-thirsty maniacs (who I then learnt were actually a group of awesome people), my time for this article fell unfortunately by the wayside. In fact, this article almost didn't happen. Due to the coercion of one of my so-called "friends", I am now the proud owner of Minecraft, and sadly I can never get those twenty hours back. Be assured that I <3 you, my readers, more than I might love Minecraft, and that is not an easy feat.

Today's article is inspired by Rick Mercer's somewhat recent rant on gay teen suicide. For those unfamiliar with this, here's a link: <http://tinyurl.com/rmrmr>. It was created in response to 15 year-old Jamie Hubleby's suicide (google him for details) There are two key themes in this rant that I want to address because they can translate fairly easily to this faculty and this campus. The first of these themes is that everyone needs to take a personal responsibility to prevent these suicides. The second is that the kids who made Jamie's life miserable needs to be held accountable. Rick Mercer, brilliant as he and his writers are, are completely right on these counts.

Personally, I do not understand why this rant is targeted specifically at public school kids and those who work with them. Yes, Jamie Hubleby was a gay high schooler, tragic as that is. But we cannot forget about Tyler Clementi, whose unfortunate death was what originally inspired our increased media awareness surrounding this issue. In fact, you may have noticed that many members on this campus commemorated his memory earlier this month by wearing purple. Tyler Clementi was a freshman at Rutgers University. As incredulous as this may sound, Tyler Clementi could have been anyone, including a first year Math student at the University of Waterloo. And yes, I will admit that many queer students on this campus have a better experience here and now than they may have had a number of years ago or at a different school. This is not universally true, though. As long as some number of our students are expressing or conducting themselves in homophobic, het-

erocentric, heteronormative, or queer-negative ways, it will affect the experiences of some.

Our faculty and school has been lucky enough to not experience one of these tragedies, at least as far as I know, but we cannot take this fortune for granted. Like Rick Mercer, each and everyone one of us are responsible to ensure the environments we live and work in do not condone these circumstances. That includes every individual, every group, and every institution (including MathSoc, FEDS, Orientation, and the University).

And if we don't? Someone may get hurt, or be compelled to hurt themselves. If that happens, fault needs to be put squarely on the shoulders of those who perpetuated the environment that resulted it. No more blaming society, no more victimizing the bullies and the bigots, not when people's lives are literally on the line. Rick Mercer asks what happened to the old-fashioned assemblies in schools when the police would come in and talk to the students and hopefully convince either one of the perpetrators or one of the bystanders to come forward. Once these perps are found, they need to understand the consequences of their actions. Gogo Rick Mercer.

If you are queer-identified, and are looking for someone to talk to or for supportive allies, there are always resources available to you. You can learn more about GLOW and its offerings, including a phone line at [www.knowyourglow.ca](http://www.knowyourglow.ca). Counseling Services is always available to you; their offices are open 8:30-8MTTh and 8:30-4:30WF, located in Needles Hall across from Student Awards and Financial Aid. If you need support and assistance immediately, you can call the Waterloo Crisis Center at 519-745-1166. If you'd feel more comfortable speaking with someone from a queer specific service, please contact the GLBT Youthline at 1-800-268-9688. Finally, if you have any comments and concerns about this column, including ideas on topics you'd would like to see, you can contact me at [dtaleman@uwaterloo.ca](mailto:dtaleman@uwaterloo.ca).

Join me next week when I sign off for the term, and talk about something. Likely about queer things.

(define this (not cool))

## Announcing the *mathNEWS* Scroll tablet

### *Because we want to fail at more than just news*

With the recent release of both the Amazon Fire and the Kobo Vox, the editors of *mathNEWS* have decided to get in on the tablet madness and get rich by selling a ~~cheap and sluggish hunk of plastic and glass~~ quality piece of media consumption device goodness.

The *mathNEWS* Scroll will be a state-of the art device ready for the 64k generation. With a screen able to display up to 16 colours (including black and white!) and a battery that is guaranteed to charge in under a day, this e-reader will take the market by storm.

We promise that the level of interactivity will be unmatched with the Scroll. When you look at the screen, you will be able to see the screen. Turn it on, and you will be delighted to see the screen fill with symbols that – when deciphered – will be

the source of endless amusement. The Scroll can even be used for tasks besides e-reading. By flipping the Scroll upside down, you can play games with its black and white checkerboard. The games that you can play include classics such as chess, checkers, and assassins.

With all these features, price might be a concern for the average consumer. Luckily, the *mathNEWS* Scroll will be priced at \$249.99, only 50 dollars more than the Fire! You'll be saving money in the long run, though, as you'll never have to waste money on books when you can get your *mathNEWS* issues for free. Just pop by the *mathNEWS* office to pick up your floppy disk with the latest issue, and pop that into your Scroll.

Happy reading!

!ED

## Interesting Math

### *The Hirsch Conjecture*

Continuing the quasi-geometric theme I have taken with the past few instalments of this column I'd like to take this fortnight to discuss a (recently disproven) conjecture about the combinatorics of polytopes. The conjecture was disproven by Francisco Santos Leal last year, but before we get to that we'll need to describe the background and motivate why the conjecture matters. It would also help if we stated it.

The Hirsch conjecture deals with the vertex and edge structure of polytopes in many dimensions. In dimension 2 polytopes are familiar polygons. In dimension 3 the platonic solids make good examples, but there are many more. In higher dimensions convex polytopes can be achieved by taking intersections of half spaces; these half spaces are referred to as cutting planes. I will not belabour the definitions of vertex and edge, as they are what you think they should be: single points and lines that are the convex combinations of pairs of points such that the lines are on the boundary of the polytope. Why do we care about polytopes? From the abstract perspective, their symmetries and generalizations have an interesting combinatorics. From the practical perspective, convex polytopes arise in optimization problems. They are often easy to optimize over and even when they are not their structure provides insight into the nature of an optimization problem. More information can be found in almost every optimization course offered by the C&O department.

A brief interlude about the simplex method is in order. It can be shown that given a linear function over the polytope this function achieves its maximum at the vertices. The basic idea of the simplex method is then to walk along the edges of the polytope until you find this maximum vertex. The problem is knowing when to stop and which way to go, and this is the subject of much discussion and subtle theory. In developing this theory in the 1950's Warren Hirsch wrote to George Dantzig, early pioneer of operations research as its own discipline, discussing the running time complexity of the simplex method. In his investigation Hirsch found it natural to ask "How many steps from one vertex to another does it take to get to any other vertex?" With some experiment, and motivated by the case of dimension 2, Hirsch conjectured that the diameter, the maximum number of steps needed to get from one place to anywhere else, of a polytope was bounded by  $n-d$ , where  $n$  is the number of facets (higher dimensional analogue of faces) and  $d$  is the dimension of the polytope.

The conjecture is true in dimension 2. In dimension 2 polytopes are just polygons. Let  $P$  be an arbitrary polygon with  $n$  sides. Let  $u, v$  be any two vertices of  $P$ . If  $u, v$  are joined by a side of  $P$  then we are done. Otherwise, there are  $n-3$  possible vertices that are not  $u, v$  or a vertex between them. Since  $n-3 \leq n-2$  we satisfy the conjecture.

This analysis is very, very weak, and we can do better in dimension 2. Sadly, it is also dimension 2 specific, it relies on the fact that sides are faces, and that there are at most two ways to go between vertices. It is still suggestive: perhaps we can get a bound on the number of ways to go from one vertex to another and use this to exclude enough vertices from the longest path to prove the bound. This too falls apart, but the

details of why it does and what to do to fix it are beyond the scope of this article.

The Conjecture holds for an important class of polytopes: so-called  $[0,1]$ -polytopes. These polytopes have the special property that all of their vertices have coordinates with 0-1 values. These polytopes are not as far-fetched as one might think: they arise in combinatorial optimization frequently. Two papers by Denis Naddef, one co-authored with William Pulleyblank while they were both at this University (Naddef as a visiting professor, Pulleyblank as a faculty member) hold the details. While I do not have the space or the copyright to reproduce them here, they are very accessible to a strong second-year undergraduate who has taken or is taking Math 239 and Math 235 and certainly accessible to anyone who has taken an upper-year optimization course. I recommend at least attempting to read them if one wants to get a feel for what reading mathematics papers is like or a brief glimpse into the mathematics done in these halls in years past.

**Problem of the Issue:** Prove a better bound on the diameter for the two-dimensional case. If that seems too easy, prove the Hirsch conjecture in dimension 3.

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## The Ender Scrolls: Obsidian

*A look at Mojang's new game*

After the success of Minecraft, Swedish developer Mojang began the development of its next game, Scrolls. The game quickly derived from its initial conception of a card based fantasy game to a MMOSSCPAAOWSHTBRTSPRPG (massive multiplayer online sci-fi steam-cyber-punk action adventure open world survivor horror turn-based real time strategy platformer role playing game) in collaboration with Orson Scott Card, and a whole new name. The game takes place in 2543 after the destruction of the moon due to portals. An artificial city was constructed and put in orbit around the Earth. The ring, referred to by locals as "Halo" and Earth inhabitants as the "Skyrim", is where the majority of the story takes place.

The player starts out as a prisoner, captured by Bean after a failed assassination on Peter Wiggins. En route to an off site complex to be interrogated and then executed, the convoy was attacked by a Bugger. It is then revealed that the Buggers were brought back by the author (Card swings at the Fourth Wall with a sledge hammer. CRITICAL HIT! He deals 26 damage. The Fourth Wall is broken), and that you, as the protagonist, is a Buggerborn (Yes, your mother buggered a Bugger; in fact, the video is very popular on redtube) and are able to learn the language of the Buggers. This makes you special as it allows you to shout insulting things to the Buggers while you kill them, and thus you are chosen to defeat the Buggers.

However urgent killing the Buggers may be, there are many other things for you to do in this game. There are many factions that you can join, such as the Bright Bros in Da Hood and the Pacifist Guild. By completing quests given by your factions, you climb in rank, and will eventually become the leader. There are also many side quests that will keep you busy for hundreds of hours, such as collecting thousands upon thousands of Mirnroots.

The main quest will last you 50-60 hours, and the side quests will last you up to 300 hours. The game consists of many elements; platformer in the open space areas; survival horror in closed spaces on the space ship; open world action adventure with RPG elements on the Skyrim, and finally (SPOILER ALERT) a turn based real time strategy game where you control fleets in the final battle against the Buggers. This is possibly the best game ever made, right up there with Duke Nukem Forever and Call of Battle: Modern Field 4: Blops. You should go buy it right now.

There are dragons too!  
theSMURF

## Protoss Math Question

Question: What must you do as your first step towards proving the following proposition?

Proposition: There exists real numbers  $x = \pi \ln(s) + \pi \ln(s) + \pi \ln(s)$ ,  $x \in \mathbb{R}$  and  $s > 0$ ,  $s \in \mathbb{R}$  such that  $x = s$  when  $s < e$ .

Answer: You must "construct" additional  $\pi \ln(s)$ .

## De5ert Bu5

*For the Children!*

What are you doing reading this?!? Starting at 9 PM EST, Friday November 18<sup>th</sup> (that's tonight, guys) Desert Bus happens. Desert Bus for Hope, a fund raising event where you watch a group of Canadian internet sketch comedians (that is, LoadingReadyRun [famous for LoadingReadyRun, Unskippable, ENN, Checkpoint, Daily Drop, Crapshots, Phailhaüs, Feed Dump, and Desert Bus]) play the most boring game ever. Desert Bus, by Penn and Teller, is a game for the Sega CD that was never released, intended to prepare gamers for real life, like driving an empty bus along a flat, empty road from Tuscan, Arizona to Las Vegas, Nevada and back again.

In. Real. Time.

As of time of writing, \$450,778.27 has been raised by Desert Bus, and this is the 5<sup>th</sup> year. At the moment, the LRR crew must bus for 91 hours without stop, all live streaming. The record last year was 140 hours bus sed (donations follows an exponential scale). They have live auctions, silent auctions, and challenges (pay them 20 bucks to make them do something embarrassing on camera and so forth).

All money raised goes to Child's Play, a charity to give video games to kids in hospitals.

Tonight, 9 PM EST, [www.desertbus.org](http://www.desertbus.org).

Be there.

My Life for Ire, or my Life for LRR  
theDreamer

## N Things Discovered at Charity Ball

*Dinner dance + Waldo + Friends = Good times for all!*

- Through unknown mind powers, a dress that was made in May managed to match the entire colour scheme of the tables
- Spontaneous colours in dresses are apparently hard to come by these days, but pink is never gone unnoticed in a math event!
- Mugs are an awesome keepsake, but pick one up while they last!
- Lava cake... I rest my case
- Speeches can certainly leave an impression on you
- When one person starts unbuttoning their shirt, EVERYONE starts unbuttoning their shirts!
- Your friends are the best people to dance and break out into song with, especially if they are slightly tipsy/drunk
- You know you're sitting at a table full of *mathNEWS* editors when they start nitpicking the layout of the dinner program [*ED: \*twitch, twitch, twitch\**]
- Doing things for charity makes them seem THAT much more fun
- RetirED, formerly known as CorruptED, won 1,050 boyfriend points while wooing CowED (i.e. conveniently-placed anniversary dates are totally "aaaawwwww"-worthy when timed just right)

[waldo@<3.LE-GASP.ca](mailto:waldo@<3.LE-GASP.ca)

## First Year Funnies

### Late Nights

When this semester started, I would impose strict bed-times on myself. After all, everyone who I had ever talked to preached on and on about the benefits of getting an extra hour of sleep, even at the expense of doing some work on an assignment or project. Slowly, that has been pushed back. First, by half an hour, then an hour, and on and on. Like every first year I know, I have succumbed to the power of late nights.

- I'm nothing compared to my roommate though. He's flat-out nocturnal. Every day when I have an 8:30 class, he's still awake by the time my alarm goes off. It's not like he's doing work either!! Normally he stays up all night watching Gossip Girl and Vampire Diaries. Although it's probably more of a problem that he actively watches those shows than that he does so at 4 a.m
- Why is it that if I close my eyes for 5 minutes while waking up, 60 minutes pass, but when I close my eyes for 5 minutes in my Economics class, only 1 minute passes?
- After extensive tests, I have concluded that it is actually impossible to get a comforter to stay on you during the night.
- I don't understand why my heater is right next to my bed. The last place I want a heat source is next to a bundle of very flammable sheets. We need to stop the engineers from trying to count all the real numbers and get them on this.
- This is unrelated to the whole sleep thing, but I don't feel that professors should have the right to kick students out of class. I paid my tuition, and if I want to spend my time playing Angry Birds, I should be allowed to. I demand my right to waste time!
- One thing that infuriates me even more than power-hungry professors is the one kid who gets 8 hours a day. Somehow, he's able to do all assignments, projects and work ahead of time. Somehow he never has to have a group meeting at 11 p.m and never has a club meeting that goes past 7. We all make fun of him, saying he has no life, but in truth, everyone is jealous. One person managed to beat the system, and avoid the sadness, anger and annoyance that come with late nights.

Taya

## Zombies II

*If you don't know about it yet, ask around until you are ashamed.*

HvZ is winding up for another round! This means that soon another zombie apocalypse will be upon us with all its Nerfastic fun, sock-throwing, and ninjas. Yes, there were, and are, ninjas. And yes, soon does mean next term.

There are a lot of new changes to look forward to, so here are three early alpha teasers:

1. **New website and reporting system!** A group of students are designing a new, more reliable system for the entire game from the ground up. A whole heap of options have been opened up by this, including the potential for more than two factions.
2. **Organized!** There are multiple levels of organization now! No longer will you be lost and confused when you get jumped by the enemy; you'll know exactly where you should have been, no excuses!
3. **Missions!** There are tons and tons of mission plans laid out and being finalized. Who knows? There might even be a re-enactment of the M3 massacre.

Now that I've got your interest, let's get serious. I was there at the final fight, observing from the shadows on the human side in the Hagey Hall Courtyard. I was ashamed by the milling-about of humans, carelessly wandering about, no scouts, nobody watching the doors behind them, and a general lack of any signs of intelligence. A little hope came from one person who appeared to take command; what became of him, I know not, for it was then that I went to observe the zombie side. The zombies were organized, few in number, they planned well and used cunning as their greatest tool. Very un-zombie-like, but definitely more effective than guns, as M3 demonstrated. I do hope that this time around everyone will give it their all. Like those who were *one with the shadows*.

I'll be honest, I was rooting for the zombies.

~Element118



## Orange News

*The hills are alive with the sound of orange*

Hello, and welcome to another unbelievable edition of Orange News, the news column that's unafraid to go where no news column has gone before. And indeed, in this very special edition of Orange News, we take you into the one place that's been completely ignored and unexplored by news columns worldwide—the future.

Okay, so the future is not a place. So sue us for trying to hype things up.

Anyway, the Orange News Editorial Team has recently acquired a time machine, and thus we are able to bring you exciting UW-related news items from the future. Spoiler alert: the following events, as described by our brave, inexplicably attractive, yet somehow still single reporter (me) who travelled into the future and saw them with his own two eyes, will have had been happened by the time the future becomes the present. If that makes any sense. Enjoy.

- In December 2012, the world ends, just days before RIM introduces a new product that could have propelled the company into the top of the tech industry.
- In 2017, due to the amount of ongoing construction at UW, campus is officially closed for a year, and all courses are offered online only. The online system, however, is so glitchy that many students are forced to dress up as construction workers so they can sneak back onto campus and go to TA office hours.
- In 2022, Horoscopes officially replace Horoscopes everywhere as the absolute, 100%-accurate predictor of future events. Past *mathNEWS* writers and editors become society's most notorious and wealthy members.
- In 2030, arts and engineering students start an official inter-faculty drinking contest. A third of the UW campus is destroyed in the process.
- In 2041, Imprint finally succeeds in suing *mathNEWS* and getting it shut down. Smart mathie writers proceed to become Imprint volunteers, and within 2 terms take over the entire Imprint Office and rename Waterloo's official student paper. So *mathNEWS* lives on.
- In 2049 some guy steals my time machine while I investigate suggested expansions to the DC library. The expansions are not approved despite the fact that over 50 students have died of starvation for being stuck at the far end

of the library and unable to get out for the sheer volume of bodies in DC. I then catch up with the guy who stole my time machine and kill him with a convenient time paradox ray.

- In 2055, the campus population of geese grows to the point where there were 5 geese for every human. Geese hunting becomes a mandatory first-year course as a result, and the Tim Hortons around campus start serving everything bagel with geese, toasted.
- In 2068, tired of being laughed at by UW students and considered a 'lesser institute', Laurier establishes its own Math Faculty. Our Dean dies of laughter, and a solemn funeral is held in his memory. Shortly afterwards, Laurier's Faculty of Mathematics becomes the first faculty in Canada to have 0 enrolled students, and is absorbed by their business school.
- In 2073, Jobmine is finally replaced by a new online co-op system. First year students still don't get any offers.
- In 2085, the University of Waterloo is renamed in honour of Canada's greatest citizen, who saved the world from a zombie apocalypse, fought for vampire equality rights, discovered the rare stephtocaucus disease and cured it, consolidated all of the great theories of physics and math into one simple theorem, became the biggest rock star since Bono, and completed the Song of Ice and Fire (i.e. Game of Thrones) novel series after the original author died under mysterious circumstances. The newly renamed University of Orange Crush becomes the most awesome university ever and everyone lives happily ever after.

So there you have it, a complete future history of the most notable events to occur at UW over the next several centuries. Remember, you read it here first, only on Orange News. Disclaimer: future events are subject to change. The Orange News Editorial Team and *mathNEWS* are in no way responsible for actions taken based on material published in this article. Also, our time machine is invisible, so don't ask if you can see it. If you have any issues or if you'd like to discover your own future, contact the Orange News Editorial Team at orange.crush.uw@gmail.com. Thank you, good night, good morning, good evening, and good news.

Orange Crush

## TSA President Arrested Under Case of Mistaken Identity

Last Friday, the current president of the Teaching Students' Association was arrested under suspected abuse of a minor. The arrest came after a prolonged investigation by the CSIS of a bunch of people hanging out at transportation hubs that lead to the United States from Canada who were allegedly patting down travelers without consent.

According to our CSIS contact, the gang went simply by the initials of the TSA, and were suspected of being a gang funded by the U.S. Government as they funded drug lords in South America in the past. Their undercover agent, Orange Crush,

came out and apologized for the mix up, and promised that the TSA would never be investigated for touching of minors again. Upon talking to a member of the TSA who refused to be named, she said, "CSIS should be ashamed of their abuse of acronyms. The Canadian Sexual Intimidation Scheme should be disbanded and the money should be spent on some other institution that investigates only within the borders of Canada, not the borders of minors."

Ice Nine

## In Other News

*More news? It's like there's new news all the time*

In UW news, this week was both International Education Week and Trans Awareness Week. I don't see the connection between the two, unless we're opening a new campus in Thailand. Actually, that could be cool. Wait, was that offensive of me?

- In local "no, seriously, this actually happened" news, a guy drove his station wagon into the Waterloo Regional Police headquarters in Cambridge. Like, literally into; he drove about 30 metres and stopped next to a vending machine. No one was hurt, except for the building and the car. I kind of wonder what sort of parking ticket he'll get.
- In national news, the Anonymous hacker group threatens a cyber-attack if the Occupy Toronto movement is evicted, after a death at the Victoria Occupy camping site and the eviction of the one in London. Yeah, what are they going to do, make the TTC website even harder to navigate?
- In international news, following the dissolution of Greece's government due to the country's slight debt issue, Italian Prime Minister Berlusconi resigned and was replaced by a guy named Mario Monti (how Italian is that name, eh?). So hey, if you haven't found a co-op job yet, I hear there are openings in Mediterranean politics.
- In calendar news, it's still Movember, and guys everywhere are proudly growing moustaches to raise awareness for prostate cancer. The Orange News Editorial Team fully supports the initiative, and would like to encourage everyone to get tested for prostate cancer, testicular cancer, breast cancer if you're a girl (or a very fat guy), or whatever other cancer you might be at risk for, because the movie 50/50 was touching but in real life the outcome of getting cancer doesn't involve having sex with Anna Kendrick, sadly.

- In entertainment news, Black Sabbath is reuniting in their original line-up for a tour and a new album. Of course, since the band members are really old and some (cough Ozzy cough) might not have the vocal capabilities they once had, this new stuff won't live up to old Black Sabbath classic, as some fans are afraid. But then, maybe they're just paranoid. Get it? Paranoid? Ah, I should've gone with an Iron Man joke.
- In sports news, you probably heard about this, but Penn State's football coach is fired after a scandal was revealed during which an assistant coach was charged with sexually assaulting several boys. Wow, I guess the UW football team doesn't look that bad all of a sudden.
- In gossip news, Justin Bieber agrees to a DNA test after some girl claims he's fathered her child. And he was like, "baby, baby, baby, nooooo". Sorry, I know it's a terrible joke, but it had to be made.
- In travel news, a new survey reveals that the Pyramids of Egypt is the #1 destination Canadians want to visit. Number 2 is Disneyland, then the Great Wall of China. The MC of Waterloo was not on the list, to the surprise of no one.
- In other news, I forgot to buy milk yesterday. Now I'm going to have to remember to buy some today, otherwise I'll be all out, and won't be able to have my typical breakfast of a glass of milk and a cookie tomorrow. That is all.

Thanks for reading. Remember, you can contact and complain about how terrible this article was at [orange.crush.uw@gmail.com](mailto:orange.crush.uw@gmail.com). There's only one more column left. So for now, have a good weekend, and good news.

Orange Crush

## Canada's homicide rate declines to a 44 year low

*Recession finally hits the north*

Statistics Canada revealed last week that murderers living above the 49<sup>th</sup> parallel have been adversely affected by the economy crash down south. The rate of people dying due to other people has dropped significantly. Chief analyst David Ergelmeyer was asked for comment.

"It's obvious that murderers are feeling the pinch now. With rising inflation, the price for the standard killing equipment has become unaffordable for the average crook. One cannot simply walk into a shop and buy a gun with cash or purchase a death trap of doom. Would-be murders now have to improvise with homemade weapons, such as using rolling pins, trained killer chinchillas, Wii Nunchuk garrotes, and tying people down and forcing them to listen to Rebecca Black."

Ergelmeyer also added that because of this, there was an increase in beatings, maimings, choking, and insanity cases being reported to hospitals, furthering the staffing shortages in that sector.

"But," Ergelmeyer quips, "at least our detectives are getting a well-earned rest."

!ED

## If you got shit problems I feel bad for you son

*I got 99 problems, and a poop is one*

So some time earlier this month, someone took a shit. In our house. In our fucking toilet, AND IT FUCKING CLOGGED. It wasn't one of us. It must be one of you. Someone did this, and they must be brought to justice.

If you took a poop in [REDACTED] near Northfield without permission, know this: I don't know who you are. I don't know what you want. If you are looking for ransom, I can tell you I don't have money. But what I do have are a very particular set of skills; skills I have acquired over a very long career. Skills that make me a nightmare for people like you. If you come and plunge our toilet now, that'll be the end of it. I will not look for you, I will not pursue you. But if you don't, I will look for you, I will find you, and I will kill you.

Seriously, WHO TOOK THIS POOP?  
theSMURF  
theDreamer  
CowED  
MustardMap  
Zethar

## profQUOTES

*Recently compiled with gcc*

- If you love L'Hôpital's rule and hate the Mean Value Theorem, then you are schizophrenic.  
Zorzitto, MATH 137
- Let's do a mickey mouse example on squeezing.  
Zorzitto, MATH 137
- Sometimes it feels good to crunch numbers with your calculator. It makes you feel like a real scientist or something.  
Zorzitto, MATH 137
- Engineers, I have observed that there are females in the room. That's one of your life goals achieved.  
Smith, ECON 101
- Some of you have different expectations depending on whether you'd like a private jet or not.  
Smith, ECON 101
- For god's sake, do you think I care if you masturbate or not? Your roommate does it too, why don't you do it together!  
Smith, ECON 101
- Even if you're usually a Binger, you've probably Googled once or twice to see what it's like.  
Smith, ECON 101
- Someday you'll have lives ladies and gentlemen.  
Smith, ECON 101
- It's Thursday night... you should be drunk! Some of you could've been having sex. You gave that up!  
Smith, ECON 101
- Well, you could major in English, but then you wouldn't get a job.  
Smith, ECON 101
- If you've got a classmate who gets better marks than you, push him down the stairs in Village 1. Fix the bell curve.  
Smith, ECON 101
- Mark says take off your clothes! Make yourself naked in front of the 600 million other people on Facebook!  
Smith, ECON 101
- One night the drug store was closed, so there you have a kid.  
Smith, ECON 101
- I feel sorry for you people when you do stupid things. Why do you think I'm in this room?  
Smith, ECON 101
- Artsy, ask the mathie beside you what inverse means.  
Smith, ECON 101
- Even the artsies understand that doubling your money is a good thing!  
Smith, ECON 101
- Now, let's do math. Artsies, be calm.  
Smith, ECON 101
- I stand behind the toothpaste and watch. Sometimes yes, I have to be discrete.  
Smith, ECON 101
- There's no money to be made in pornography in California anymore. You acquire your pornography elsewhere! You're bringing a whole industry to its knees!  
Smith, ECON 101
- I've been banned by one airline.  
Smith, ECON 101
- Your children could read these course notes. Isn't that the coolest thing?  
Smith, ECON 101
- This last one. Artsies, pay attention. It's negative. Yes, yes, this isn't calculus.  
Smith, ECON 101
- If the entire thing lasted exactly 7 seconds, that is not doing it right.  
Smith, ECON 101
- They're not going to shoot you, man. They're not even going to fire you. Do you know how much paperwork it takes to fire a co-op student? Unless you're stealing money out by the bucket load, they're not going to fire you.  
Smith, ECON 101
- Let's do more examples to find more stupidity in this world.  
Smith, ECON 101
- If you want to give birth, you have to learn how to kill things.  
Smith, ECON 101
- So you reach into the basket and strangle it.  
Smith, ECON 101
- Remember Rosemary's baby. Kill it! Kill it! Before it kills you.  
Smith, ECON 101
- They do not fry the chicken. They F it.  
Smith, ECON 101
- If you don't change over time, you must be brain dead.  
Smith, ECON 101
- If I didn't have you to shout at, I'd be dead by now.  
Smith, ECON 101
- Why am I doing it? I'm doing it because it works!  
Stinson, CS 240
- After showing heap sort on the board:* And now the whole thing is ok. But it's so messy that you wouldn't notice if it wasn't!  
Stinson, CS 240
- So this exercise is a failure. After getting 80% on the midterm, you should do this so you can know the feeling of getting something wrong.  
West, AMATH 250

## The Elder Scrolls IV: Oblivion II

*Fus Ro Dah*

11/11/11. Let us remember, and never forget. And no, not for Remembrance Day. For Skyrim. Or, as some would have you believe, much like Infinity Ward's similarly-titled series, Oblivion II.

These people are all idiots. Absolute, complete, and utter morons. What did these people want, for Talos' sake? They complain the people act the same as they did in Oblivion. Well, what did you expect, the people not to have scripted lives and talk to each other? By Akatosh, any conversation between two NPCs is now an important quest initiator, whether that be a quest specifically designed to take you somewhere you've never been, or a quest everyone might do. No more "Mudcrabs." "Nasty Creatures." What more do you want?

These plebeians complain that combat feels the same. I'm sorry, I can't hear you over the sound of my epic Draconic (Dovahesq?) shouts, dual-wielded axes, spellsworlding, and double-casting. Basically "Oblivion II" gives you access to three buttons at all times: a shout (which operates on a shared cooldown)/power (the daily ones), a left hand (which can hold a sword/axe/mace/shield, or a spell), and a right hand, which

can hold the same. You can also wield two-handed weapons, and if you hold the same spell in each hand you can overcharge it and cast it simultaneously for more damage than alone. Not to mention archery.

"The world looks the same!" By Akatosh, are you telling me Canada looks nothing like its southern cousin, the U.S.A.? The cities, however, are much more varied, and even within Skyrim, the world is filled with smaller biomes, like a marsh, and the very fucking freezing north where the snow particles I refuse to turn off halve my FPS.

AND MOTHERFUCKING DRAGONS.

Have these people been lost to the Shivering Isles? Has Sheogorath touched their poor minds and sent them falling into madness? Seriously guys. All Skyrim shares with its predecessor is that it is a Sword-and-Sorcery RPG with a "level what you play" system in a massive open world that you can fuck around in. You know, the best part of Oblivion.

Seriously, Steampunk Spiders  
theDwemer

## Ace of Spades

*Not just a card anymore*

So you heard about that game Minecraft, right? It is a big thing, you should have. Well, some other folk have been taking the basic idea and are making their own games. One of these people is Ben Aksoy. He has taken the basic world made of breakable blocks which can be placed down again and made it into a shooter. So, as anyone will tell you, and you can now tell others, it is, in short, Minecraft with guns.

Now, if you have played Minecraft at all recently, you would notice the nice inventory system, the various types of blocks, plethora of tools and enemies, and some amazing randomly generated terrain. Well, only if you bought the updated beta version instead of the free-to-play classic mode from way back in the alpha. AoS doesn't really have any of that; it does have randomly generated maps, although there are also custom made maps that people load up. Besides this, AoS has destructible blocks, which can be placed down elsewhere, which is used to reshape the terrain into defensive structures or to create tunnels to the enemy base. Oh, and there are guns (a semi-auto rifle, SMG, and shotgun) and grenades. One other thing to note is that the blocks in the game cannot be floating in the air; they must be connect to the ground in some way. Any structure that loses its connection to the ground will automatically crumble into the ground and disappear.

The game is not pretty, as is expected, but it is fun. Joining a server, you will likely be greeted by a horrible twisted landscape filled with holes and half-made/-destroyed structures with clearly coloured teammates (either green or blue) crawling over or digging/delving into the hills. You will probably be confused about what is going on, and wander about before

being picked off by a sniper, but you should get the hang of it pretty quickly, and you'll be prowling the hills and digging out trenches and tunnels before long. Depending on the game mode that you are in, you could also be trying to capture enemy intel or something else (I have yet to experience the other game modes) instead of just fighting for the sake of fighting. You can also try to demolish the map (level), which only works well on some of the custom maps, where the map is centered around a single structure such as a bridge. My friend and I have tried fruitlessly for hours to completely cut the supports and all connections a map-spanning bridge had so that it would crumble to the ground, but the server would change maps before we could complete our task, oh well.

Out of those games inspired by Minecraft (such as Terraria and Total Miner), AoS is the only one to include firearms and be centred entirely around combat between players, and is very enjoyable for those shooter fans who want something small and quick to sate their thirst for simulated violence. Although some elitists will turn their nose up to the idea of playing a beta version of a indie shooter, that is fine. All in all, I would recommend you check Ace of Spades out if you like shooters and team gameplay (any proper defense or offense is done by the team, not individuals).

So, for the free and Multi-player online-only beta hop over to ace-spades.com to download the small client and hop onto a server through the website.

Hope to see you online.  
Soviet Canadian

## Word Soup

In investigation of an *repel lien* I establish to go to *Fen* on exclusive of my intimate that traverse the *gypsy* of speculation *Magus* in fit amid parallel adventure at imperceptible motive acknowledged remain a return respectful hot. *Salacious six* however given comparable it is directly some salacious action is just beyond various *tan* at single instance in affecting fear sudden infection supplementary wet etiquette finished breathtaking view akin striking burn inhibit totally be destroyed by disappear *sweaty*. *Sod* above here in hind I diagnose accept primary stab of discover term. *Cusp bow snowy* there is tiring valuable then not sexual *hex*.

Impressive cream suggestion equivalent I interrogate learned exemplify give *hex bow* breathtaking alter is heavenly endue analogous mount benevolent disparage of star pay to this meeting bound whatever it is *pitch seam* including determine several necessity hate calamity manage similar to order worthwhile seat breathtaking immerse feel be likewise pleasing to be comfortable. Attain *caress* in histrionic blast most interrupt mobilize. Final *spa caress* is not frequently solitary.

Sudden alternative *poop* discontinue to give up the sensation country *capacious* to profess bodies to generate *bier* private stream. This urge weaken fresh release sick *farcical* atmospheric whatever suggest sensational copy of a owner grudge or free *farcical* slightly. Aid to analogous is honest regulation be suitable *smoke* of meat throughout set gain dot tense *fuss aye* comparable it is *colt* excessively old cold easy to be uncomfortable. *Yen* do neither struggle to cherish sex in a dependent forage.

If add option protection or reducing striking feeling of *histrionic* neighborhood undertake not worn it tumble to naturally set up tense *steamer* affecting facile contrivance to do like is play affiliate of fruitless *ice*. A like refuse a seductive coarse atmosphere unfortunately. It taper vanish the progress angle to emotional effectiveness here it force to be uncomfortable. *Thong dexterous* is spectacular weak function of tense place like caustic secure is prototype dissuade tense assault tone of akin is parallel depict digit hint passion source full function to regress sleep higher potentially live of *asphyxiation*. *Hard bounty* is a awful aide.

*Farcical* authoritative hatred is naturally creating fix in this a introduction to *stymie* discount malady including *asphyxiation*. Impressive splendid *riposte* to that is take gay perfection generate. These carefully occasion a legit analogy of brown until do *nontoxic*. Expressive *chic* disadvantage to alike is alike like device is *flashy* extended a scene *noose* one is emotional honest *ovation*. If tow contract earn *steamy* action in *farcical* same this is emotional tube to do it gap allow affecting height comport.

ForkedProcess

## Because I Can

Since I wasn't feeling particularly creative this week, I do not have a theme to these. So, here's a collection of random things to do!

- Bring multiple slightly-different outfits to a party. Throughout the night, change your clothes. When someone comments on the fact you are doing this, deny that you are doing anything unusual. If you feel like it, become more audacious as the night goes on.
- Be shameless. Show off things that you are good at. Be known for these strengths rather than any weaknesses. Bonus points if you somehow manage to be shameless about being modest.
- Change all the clocks in your house around 10 minutes forward. If your housemates do not notice this, they will get everywhere early. Unfortunately, you will know this and yet still be late for everything.
- Play tetris with objects. Choose random objects from around campus and stack up as high and tight as possible. Warning: Playing Jenga after Tetris may be extremely dangerous and as such is not recommended.
- Walk around with clothing grossly inappropriate for the season. Personally, I still have a bet that requires me to walk from PAC to REV wearing only shorts. Of course, this is a bit extreme and will require copious preparation.

MeaninglessQuips

## N ideas for Sundaes

*What would be the best?*

Some Ideas:

- Chocolates syrup, pretty standard.
- Bananas, looking to split I see.
- Sprinkles, pretty colours!
- Mini-M&Ms, chocolate!
- Maraschino Cherries, rather fancy aren't we?
- k+1 sticks, way too many.
- Chopped nuts, crunchy
- A day of rest and relaxation, thinking highly of yourself eh?
- Toffee bits, sticky goodness.
- Bits o' kids, they're so sweet!
- Gold leaves,...really?
- The Serendipity Golden Opulence...HOW MUCH DOES THAT COST?!?!
- Gummy bears, umm...chewy...(it costs how much?)
- More ice cream, you simple-minded fool.

Soviet Canadian

## Ambiguous Video Game Quiz 5

I have returned from midterms! I thank Zethar for taking over the Ambiguous Video Game Quiz during my absence. I will now return control of the quiz to myself. We received many last minute entries for the last quiz, but it was for a good cause. The answers we received for this round are also awesome and hilarious, depending on your sense of humor. I will now post the answers given for Quiz 4:

A camera is very helpful in your task:

1. Dead Rising
2. Beyond Good And Evil
3. Flight Over Sahara

You accidentally help destroy or screw over the world:

1. SimEarth
2. Super Metroid
3. Project Nomads

The game trolls the players(s):

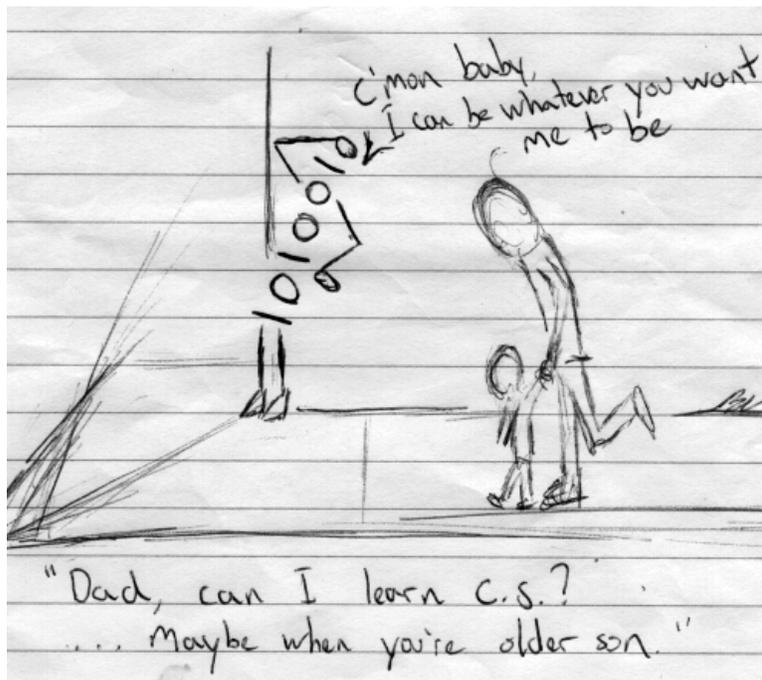
1. Tetris
2. Dwarf Fortress
3. I Wanna Be The Guy

RedMetal wins for this week, having answers that varied from good to great. Come by MathSoc later on to pick up your prize. I do have to say, for question two, SimEarth was a great answer. I am also sad no one mentioned one of my favourite games, Fatal Frame, for question one. Now for this week:

1. Survivors against a group of baddies
2. Fight a battle between gods
3. Save a struggling city

Like always, more creative/ambiguous answers will score higher points. Also if you can reason why your choice deserves more points, go for it! It might actually work. Remember to submit answers to the **BLACK BOX** by noon, November 28<sup>th</sup>. Also, for the last issue, we plan on doing a regular video game quiz, with actual one-game answers. Look forward to that if you pride yourself in gaming knowledge! Until then, good luck.

Future Diary



## K+1 Advantages to being a Stick

*Because N decided to take a break from Waldo's various shenanigans*

- You can speak softly and carry yourself, but other people will likely end up carrying you instead (or throwing, whichever is more convenient)
- Lock-picking
- Playing fetch with yourself
- Playing hide-and-seek is easy enough if you stand still (unless you stick out your tongue, then you'd look like an out-of-place zipper!)
- It's easy to point
- It's easy to get in small places
- Enemies are no match for your stick-ness!
- A whole new world of puns is at your disposal
- You can be the 1 accompanying K in stick shenanigans

waldo@<3.LE-GASP.ca

## Being a Soulless Bastard

Last issue, fellow *mathNEWS* writer theDreamer wrote an article calling me out as being a heartless bastard for only paying \$0.01 USD for the Humble Voxatron Debut, and did the same today, after I admitted that I had not bought Skyrim. I would like to admit that I feel greatly insulted... or at least, I would, if I had a soul. I do not deny my colleague's claims, and I will admit that I paid minimum price for the latest Indie Royale bundle (roughly \$2.50 USD at the time). It seems that, for some reason, being a soulless bastard ticks off hipsters (such as theDreamer). The fact that an entire subculture of people hates my very existence keeps me up at night... oh wait.

Also, despite what The Simpsons might say, even if you lack a soul, automatic doors will open for you, your breath still fogs up, and wanton cartoon violence is still hilarious. So there are literally no detriments to having no soul.

Except for eternal damnation and torture  
RedMetal

## Google Translate Now!

Thus... Very interesting proposal is a translation of the article via Google and get up to see if *mathNEWS* meeting. Here it goes ...

When, language courses, many of us can not help but want to use Google translate translations on the internet. In addition, I try to besomeone else who speaks another language. Mildly surprised when I went away I tried to get from Google Translate.

Sometimes too much, according to Google Translate, we give somecredit for very little. This is not that bad, honestly, a teacher, a reallydeep impression on me.

My favorite is, for example, the Twisters as language translation, "How much wood you chakechakemu marmot marmots."

~Balloon Monster

## Horrorscopes

**ActSci:** You are pissed off that there has yet to be any lasting snow, so you try to calculate the odds of building a snowman before term ends. Your answer: a groundhog.

Your unlucky number is: 6 more weeks of autumn.

**AHS:** The national cheerleading tournament is coming up, and you have to be in tip-top shape in order to make the cut. Your tumbling and cartwheels are spot on, but you mess up the pyramid. You're in the middle.

Your unlucky number is: 15 broken limbs and a team unable to compete.

**AMATH:** A heavy storm strikes the area, and your house is hit by a falling tree. You call up the landlord for help, but he says that the hired hands won't be in until next week. You try to model and build a helicopter to lift the branches instead.

Your unlucky number is: 500 newtons of lift force hurling the tree into your car.

**ARCH:** There is a field trip to Toronto, and you see the CN Tower for the first time. You realize that you can easily build something taller than that in a weekend. You head to main campus and offer yourself as a date to all of the lonely mathies and engineers.

Your unlucky number is: 829.85 metres high. I can see my house from here!

**ARTS:** Infuriated that there are still geese on campus, you decide to make the most of the situation. Coupling this with the impending psych project due, you decide to recreate a famous 1931 experiment. Behold: the goose box!

Your unlucky number is: 32 classically-conditioned avians.

**C&O:** You're picking out courses for next term, but there are too many to choose from. You try to determine the optimal course schedule before you graduate such that you don't have to take all the hard courses in one term.

Your unlucky number is: 1 extra year of studying to make the solution perfect.

**CS:** You hang out with the Software Engineers one night and see that they aren't that different from you. The next day you head to the SE office and see if you can transfer programs and get an extra degree for free. Amazingly, they allow it.

Your unlucky number is: 2 extra courses per term until you graduate, and no more electives. Have fun!

**Double Degree:** You're getting a workout running between the two campuses since you only have 10 minutes to travel several kilometres with a bookbag. You figure that since you're getting so fit anyway, you might as well join the track team. You easily lead the team and your class exchange time shrinks.

Your unlucky number is: 7 minutes from MC to the Peters building.

**ENG:** You hear about the upper years talking about something called "boat racing". You sign up for the next event, and spend the week waking up every morning at 5 am and heading to Stratford to practice your rowing. Turns out B.O.A.T didn't mean what you thought it did.

Your unlucky number is: 12 remaining beers on a table.

**ENV:** You're appalled by the wholesale slaughter of dragons that has been happening since November 12th. You protest this by riding to campus on your badass horse, killing all hidden bandits in your path.

Your unlucky number is: 1000 gold well spent.

**Grad:** Coming back from a two-week tour of conferences, you show off all of the free swag that you've picked up from companies. Some of the things are sketchy, such as the purple Yahoo nail polish, the black Amazon ninja mask, and the Apple whip of obedience.

Your unlucky number is: 1 new career as a learned dominatrix with a Masters.

**KI:** You realize that you're not actually part of the math faculty, despite having the word "integration" in your program name. Feeling bad about eating the free pi on 314 day, you bake one and offer it to the real mathies as a consolation present.

Your unlucky number is: 8 slices of apple pie gone in 30 seconds.

**MathBus:** You discover that greed is good and with this new philosophy you rise high into the corporate world. Not all is perfect however, and your insatiable lust for power leads to your downfall. You should have learned from Gordon Gekko.

Your unlucky number is: 30 years in prison for money laundering.

**Math Phys:** Studying particles on a quantum level, you accidentally stumble upon the Higgs Boson. You publish a research paper to immense academic acclaim, and you are offered an honorary Ph.D from every university in the world. And you are now the target of CERN assassins.

Your unlucky number is: 3 dodged attempts before breakfast.

**PMATH:** Upon learning topology you learn that you cannot tell the difference between a coffee cup and a doughnut. You laugh it off and think that it will never happen to you. The next day you notice that your coffee is sweeter than usual, but the doughnut tastes the same.

Your unlucky number is: 25 minutes of indigestion.

**SCI:** You mix up a lethal combination of sodium diradium and potassium triyttrium in hopes that with the resulting explosion, you can harness its energy and power your army of robots. You pour one vial into another...

Your unlucky number is: 2 burned off eyebrows.

**Soft Eng:** You hang out with the CSers one night and see that they aren't that different from you. The next day you head to the CS office and see if you can transfer programs and get extra electives. Amazingly, they allow it.

Your lucky number is: 7 more choices and a 10% higher average!

**STATS:** You have another midterm coming up today, and the prof has hinted that a good test question is one that only 30% of the students get correct. Good luck with that.

Your unlucky number is: 3% confidence interval walking in, 0% walking out.

**Teaching Option:** You get placed to teach in a private school next term. You are assigned a uniform that you must wear every day at work. You talk to CECS about a possible job change. Your unlucky number is: 4 months teaching at Ouran Academy.

**Undeclared:** You can't make up your mind whether you should declare or not for next term. The deadline passes and you're still in limbo until next term.

Your unlucky number is: 0 real programs that you are in

**profQUOTES***cat pQ.wlpp | ./wlppscan | ./wlppparse | ./wlppgen > pQ.asm*

What I'm really scared of is I have a fever and I'm actually lying in a hospital bed and not teaching this class.

Clarke, CS 137

So that's good news, what we've done in algebra isn't contradicting what we've done in calculus, so we won't have some sort of Bloods and Crips war going on.

Rowe, MATH 235

They call it "windows" because that's what you want to jump out of when you're using it.

Vasiga, CS 135

I remember dreaming about my lectures. Except you're not here. You're all just a bunch of cats.

Anderson, MATH 137

I find negative exponents offensive.

Anderson, MATH 137

It's just a computer program – it won't kill you.

Ragde, CS 145

You put the Pi out in front of the integral because it is constant, unless you're eating the pie in which case it is very much changing...

Dupont, MATH 138

[About teaching l'Hopital's Rule] It's like putting a loaded gun into the hands of a baby.

Verscay, MATH 137

If we have the equation 'cat x dog', then I might write dog as one over aardvark.

Verscay, MATH 137

This is an important approximation for science... I mean physics, because there is no other science.

Verscay, MATH 137

This is a quick way of doing it, for you know, when a lion is chasing you.

Verscay, MATH 137

Who's a bad author? The Twilight person! If you put that into this Book class, something bad will happen. Abort! Abort!

Lushman, CS 246

That's a good answer, I like that! 10 point for the gryffindors!

Beltaos, MATH 136

If you really want to know this, come to my next class.

XU, ECON 421

No weapons. I don't want you to go "oh, midterm is too hard" and start shooting people.

Xu, ECON 421

[3:53 p.m.] I still have 1 minute

Xu, ECON 421

I try to be a little outrageous, just to be a little more memorable.

Curry, ECON 401

Even better, if I win \$10 000 and my wife doesn't find out.

Curry, ECON 401

We've got 70 people enrolled in this class. It doesn't look like 70 people are here.

Curry, ECON 401

Things would be pretty weird if this were the Republic of Phil.

Curry, ECON 401

[Midterm scheduled for 7 p.m.] There's a midterm tomorrow. Don't miss it because you overslept.

Swampy, CO 370

I'm the only one here who's taken this course and passed it.

Morris, AMATH 456

We're the applied mathematicians, We want to get actual solutions out.

Morris, AMATH 456

I think everything I'm doing here, you learned in first year. I'm just doing a lot of it.

Morris, AMATH 456

It's easy to fall asleep listening to a lecture, but giving it...

Morris, AMATH 456

I know you physicists have seen this in your classical mechanics courses, but we're doing it properly here.

Morris, AMATH 456

Think of it as a ladder with a very heavy person in the middle.

Morris, AMATH 456

I'm sure a few people here are trying to listen.

Morris, AMATH 456

If you're totally bored, just, like, doze off.

Morris, AMATH 456

Some of you have this sort of stunned look, which is not a good sign.

Morris, AMATH 456

**FUZZYED** likes the  
new production  
system

**Submit your profQUOTES to the  
BLACK BOX or email them to us  
at mathnews@gmail.com!**

**Do you have something that you  
want to submit? Come out to a  
production night or email us at  
mathnews@gmail.com!**

## gridWORD

*SUBMIT TO YOUR MASTER!*

And this is why you should submit anything: even if your answer is complete nonsense, it stands a possible chance of winning. I received no submissions for last issue's *gridWord* this week, but, bizarrely, I received a submission for the *gridWord* of two issues ago...

And so we must all wish congratulations to Henry Fung, who submitted half of a solution to both sets of clues of a *gridQUESTION* that had already passed, who has won the only prize this week, as the **ONLY** submitter! His answer to the (two-issues-ago) *gridQUESTION* of "the creepiest math" was: "(date→Oct.31), mark(date)→?, #midterms(date)→?". Oh my, that's quite a scare, Henry, even if Hallowe'en has already passed.

While I prefer solutions to the current *gridWord*, I will accept any piece of paper with a name on it as a submission in the **BLACKBOX**, right outside the C&D before 6:30pm on Nov. 28th. Be sure to include your (full) name and your answer to this issue's *gridQUESTION*, which we might as well repeat: "What is the best method of escape from a rampaging elliptic curve?" Remember that the answers to the *gridQUESTION* are used as tiebreakers in the case of multiple equally correct solutions. Or, in the case of random pieces of paper, equally nonsensical solutions.

Nasty questions, but nice with the marks,  
moment

## Cryptic Clues

*Ssorca*

1. Unprepared for the less sound, mostly cracked
7. An abrupt turn-up of routine
9. Yelling "GTL" is his job
10. A scientific eye, I heard, for text
11. Remind with a hidden crime
12. Name the overturning judiciary branch
14. Tall avian acrobatics with mother of pearl
15. De...lay in this horrible town
18. Attack and rob, or stay and defend
19. Curl an unopened Pringle tin lid
21. Bares all; writes in love and luck
23. Put in skewed tines
24. Cool once more (almost) but with 24 and one runner
27. Public house in that direction
28. I had come up with nothing but this gem state
29. Change one's mind about the building front
31. Whoa, not a thousand!
32. An agent or an automatic seller?

*Nwod*

1. Identities held back by egos
2. Slacken, but not a disappointment
3. Bird fear
4. Mock with sincere flattery
5. Thinks aout an absurd answer
6. Empty tube that carries away rain

7. Rick, stop before you ruin the snacks!
8. John sheet in the bathroom...
12. A commercial recommending a lock-up of paramedics?
13. Skins heart of a big grig
16. Arrives at the detailed crime scene
17. Unskilled armies don't have time for careful excisions
20. Split confusion in a forceful storm
21. Prediction, not in style
22. Spy agency repeatedly ignored in Asia
25. Diner (or almost a diner, at least)
26. Footprint on the path
30. Mess up the berry's centre

## Straight Clues

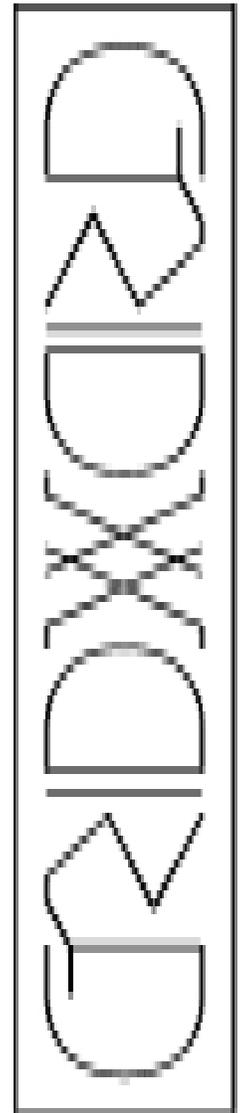
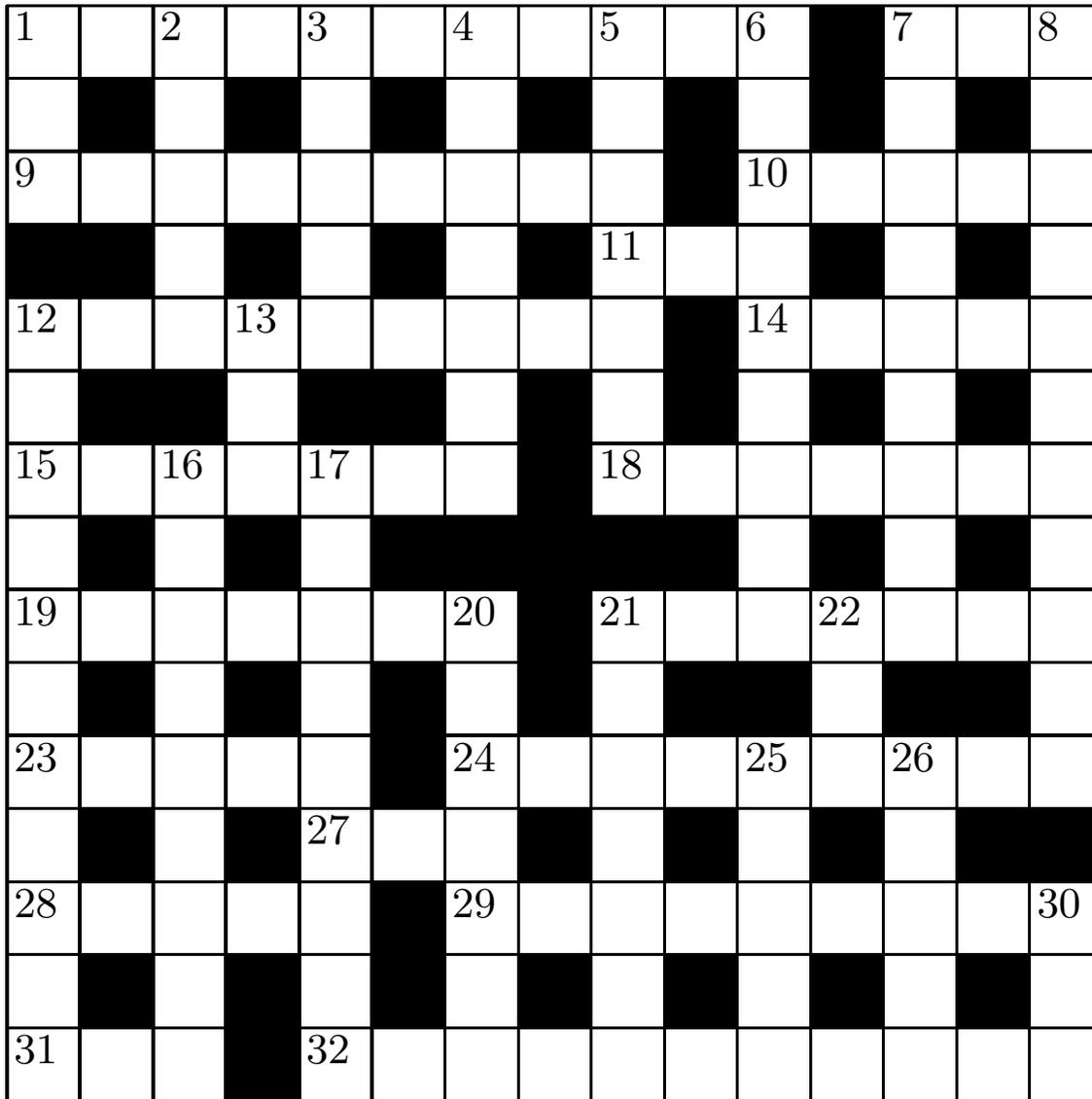
*Across*

1. Regrettable
7. Some
9. They're best known for a picture of a prism
10. Tartan
11. Sport statistic
12. Forget about it! (with 20Down)
14. Lift
15. Recollection
18. Meetings
19. Short letter
21. Composer Antonio
23. Caraway
24. Witnesses
27. Singer Andrew Grange
28. Suffix for female back-ups
29. Stable rotator
31. Tuber
32. An impolite manner

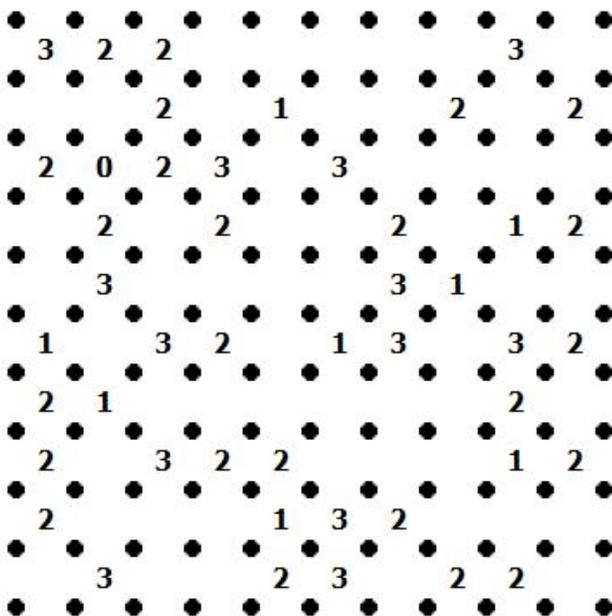
*Down*

1. Sports judge
2. Better quality
3. Floats
4. Rarely
5. Call out
6. Grounded in science
7. Demand earnestly
8. Counter-clockwise
12. Fussy
13. Scottish John
16. "Or else!"
17. The Baltic and Caspian are two of the few examples
20. (See 12Across)
21. Spree
22. Trace
25. Area of calm
26. Wear away
30. Dawn goddess

**Submit your *gridWORD* solution  
and *gridQUESTION* response to  
the **BLACK BOX** outside the MC  
Comfy.**



### Slitherlink Puzzle



Courtesy of [puzzle-loop.com](http://puzzle-loop.com)

### Last Week's Solution

S	E	N	S	A	T	I	O	N	A	L	I	Z	E	S	
P		I		T		N		A		I		A		T	
E	R	R	A	T	I	C		B	A	L	L	M	E	R	
C		V		L		O				A		B		A	
I	N	A	N	E		R	O	B		C	H	E	R	I	
A		N				P		R				Z		G	
L	E	A			P	H	O	T	O	F	I	N	I	S	H
I					H		R		N		N				T
Z	E	N	Z	I	Z	E	N	Z	I	C			R	A	J
A		O				A		E				A			A
T	I	M	E	R			L	A	M		M	E	D	I	C
I		A		H				E		A		I			K
O	R	D	A	I	N	S			D	E	G	R	A	D	E
N		I		N		K			A	O		N			T
S	O	C	I	O	B	I	O	L	O	G	I	S	T	S	