

April Fool's Prank Leads to Editorial Hell

## lookAHEAD

| mathNEWS |  |
| :--- | :--- |
| April 5 | Issue 6 released in Beta |
| April 8 | mathNEWS EOT |

MathSoc

| April 7 | 24 Hour Games Day |
| :--- | :--- |
| Sporadic | Office may or may not be open |


| Orientation |  |
| :--- | :--- |
| April 9 | Orientation Session for US J-1 Visa(A-L) |
| April 10 | Orientation Session for US J-1 Visa(M-Z) |

University
April 8
April 11
April 26
April 29
Last day of Classes
Exams begin
Winter work term ends
Spring work term begins

## Misc

April 21
Spring finally arrives. Just kidding!

## Math and Theatre!

Need something fun to do during exams, which is kind of like math but not really? Well, you can watch the Kitchener Waterloo Little Theatre's production of "Proof" written by David Auburn.
"On the eve of her twenty-fifth birthday, Catherine, has spent years caring for her brilliant but unstable father, a famous mathematician. Now, following his death, she must deal with her own volatile emotions; the arrival of her estranged sister, Clair; and the attentions of Hal, a former student of her father's who hopes to find valuable work in the 103 notebooks that her father left behind. Over the long weekend that follows, a burgeoning romance and the discovery of a mysterious notebook containing a proof written by either Catherine or her father draw Catherine into the most difficult problem of all: How much of her father's madness-or genius- will she inherit?"

Performances are April 11-13, 18-20, 25-27 at 8:00. KWLT is located at 9 Princess Street, Waterloo. Tickets are $\$ 15$ each.

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## Founded 1973

mathNEWS is normally a fortnightly publication funded by and responsible to the undergraduate math students of the University of Waterloo, as represented by the Mathematics Society of the University of Waterloo, hereafter referred to as MathSoc. mathNEWS is editorially independent of MathSoc. Content is the responsibility of the mathNEWS editors; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or mathNEWS. Current and back issues of mathNEWS are available electronically via the World Wide Web at http: / /www. mathnews . uwaterloo.ca/. Send your correspondence to: mathNEWS, MC3046, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1, or to userid mathnews@student. math. uwaterloo. ca on the Internet.
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Through the Wonder Glass: Julie Sturgeon(Queen of Hats), Murphy Berzish(The White Heart), Lenny Morayniss(Mad Harer)

## mastHEAD

Last issue of the term, they said. It'll be easy, they said. BUT THEN THEY PUT A "HUG ME" SIGN ON MY GOD DAMNED BACK. So then I drank while doing layout. Then, when GingerbrED, ScruffyED, !ED, GroovyED, ImpulsED, StaticED, CorruptED, CamoED, CowED, FuzzyED, AngelED, RamED, InsidED, and hell even ObjectED decided this was a bad idea, I tried to fight them. FUCK YOU GUYS I DO NOT NEED A GODDAMNED FUCKING HUG WHY IN THE NAME OF FUCKING CHRIST ARE YOU STILL DOING IT? > ?!@(\#\$(@\%\&\#!?

After waking up tied to a pole and sobering up. I restored mathNEWS to some semblance of sanity. Eventually, I decided to compromise: mad enough to be funny, sane enough to be read.

I still think sanity lost, but I tried this time. If you enjoyed the layout this issue, I strongly recommend reading House of Leaves by Mark Z. Danielewski, since I drew a lot of inspiration from that. Especially the part about going mad. At least I didn't use any hebrew passages.


Remind me to not do this drunk. What is your best prank?
Shay Blair ("Nothing. Causing paranoia is the best."), yourlocalWHETHERgirl ("Replacing a friend's bed with a couch and covering it with Imprint"), Element118 ("Slowly diluting toothpaste and soap over the course of a month."), Beyond Meta ("Put a 'Hug Me' sign on ObjectED's back."), Diglett ("Put a giant Edward Cullen poster in my roommate's bed so he saw it as he pulled back is blankets to sleep."), because_its_hard ("swap(\&salt, \&sugar);"), !bar ("Making a friend believe that she missed her exam, and not telling her for a while."), unit ("Telling people my crosswords are easy."), walso@<3.LE-GASP.ca ("You found me! Oh, nope. That's just the flag of the USA. Try again."), Ice Nine ("Giving Chicken Bangalore from Kismet to theSMURF"), moment ("Building a weather machine and making it snow in April"), GingerbrED ("Glueing candy to a coworker's desk with icing."), himynameis ("Crosby's Molasses"), Zethar ("Well, the results are still unfolding..."), Scythe Marshall ("Pretending to be a legitimate news reporter."), theSMURF ("SQL injection on mastHEAD answers: AND "1" == "1"; DROP DATABASE").
("You're reading it."),
ObjectED

## Prez Sez

We've made it through another term (almost), and exams are upon us. This term has been busy, and the past few weeks have been no exception. Some highlights:

- Rita Wiebe, the C\&D manager, will be retiring at the end of this term. She has been with the University for over 20 years, and will be missed. Hiring for a new C\&D manager will be taking place over the next few weeks.
- MathSoc has disbanded the Computational Mathematics Club due to lack of use.
- The incoming executive for the Spring term are:
- Elizabeth McFaul (President)
- Lauren Hurley (VP Operations)
- Ty Rosak (VP Events)
- Sean Hunt (VP Academic)
- Joiye Zhang (VP Finance)
- MathSoc is investigating the use of student space within the faculty. A space committee has been created to solicit feedback from students, and present a proposal for re-assigning club space. You may have seen the survey around through our emails and on Facebook - be sure to fill it out if you haven't already.
- We are going to be updating our website, since I'm tired of learning HTML to post announcements. When its done, it will be awesome. In the meantime, if you'd like to be involved in writing new content for the website (including academic resources and a first year guide), send me an email.
- Director applications for the spring term will be released in the coming weeks.
- Congratulations to Dan Wolczuk, who has been awarded MathSoc's instructor of the year.
- Congratulations to our new Honourary Lifetime Members:
- David McKinnon, Associate Dean;
- Rita Wiebe, C\&D Manager; and
- Edgar Bering.

Just a final reminder that the C\&D will be open throughout the exam season, so that you can be appropriately caffeinated for those tough algebra questions. It will be open 8AM-4PM. Good luck in studying, and best of luck on your exams. We'll see some of you in summer, but if not, have an awesome co-op term or summer break.

Elizabeth McFaul MathSoc President prez@mathsoc.uwaterloo.ca

## Games Sez

So, the last of the "official" MathSoc games nights was held this past Tuesday, but fear not, we have saved the best gaming for last: our termly 24 -Games Day will be happening tomorrow. That's right: 24 hours of board games, beginning Saturday, April 6th at noon and ending Sunday, April $7^{\text {th }}$ at noon.

Lots of people show up, many, many games are played, and free snacks and drinks the entire time. Also, we will be serving free pizza at midnight. And this is a great opportunity to play a bunch of those long board games you never have time for. So come out and play board games for 24 hours with us!

DanInTheHat

## Sweet and Sour

Math is usually a "square" field. For those of you born after me (i.e. all of you), this implies that our field is seen by the general public as the "Sheldon Cooper" of geeky fields.

I think it's time for a change. We should strive to be round -well-rounded.

Most students do not end up in jobs that have a title matching a particular mathematical plan. Sure, there will be some who become Actuaries or Accountants, but the vast majority of us will end up in jobs that are not exactly as our degree may indicate. An Applied Math major may end up as a Financial Advisor, a FARM major might become a VP of Marketing, and a CS major could venture into sales. As a math grad, your choices are endless.

The options available increase proportionally with the side trips you take, with the variability of your course selections and the myriad of things you do outside of class. You may take a journey into the PAS (take a map), and find a course that becomes the basis for your career, such as analyzing psychology data. You might take a CS course during your Pure Math degree that leads you into the realm of database management. You could even spend enough time in the drama club and decide that acting is your thing.

By taking a variety of courses inside and outside of the faculty, you open your world to new concepts and new insights and discover alternate ways of thinking. This is why the faculty requires you to complete 10 non-math courses; and why CS has a depth and breadth requirement.

Strive to be round, not square. You'll never know what you'll learn or where it will take you.

Best wishes on your term, Riley Metzger, Advisor
http://math.uwaterloo.ca/math/current-under-graduates/academic-advisors

## VPE Sez

## GingerbrED! was a laptop stand for the making of this article.

I hope you've had a great term so far, I've truly enjoyed being your Vice President Events. I hope you've come out to some of our events. The last one is 24 -Hour Games Day, check out the Games Sez article!

I am also going to be President in the Fall term. Let me know if you are interested in getting involved e-mail me before the end of this term.

Stéphane Hamade
Vice President, Events
vpe@mathsoc.uwaterloo.ca

## University of Waterloo Choir Presents: Bach to Bernstein

The University of Waterloo Choir, directed by Dr. Gerard Yun, is presenting their end of term concert, Bach to Bernstein. They will be performing J. S. Bach's Lutheran Mass in F Major (in Latin) and Leonard Bernstein's Chichester Psalms (in Hebrew).

The show is being performed at St. Andrew's Presbyterian Church, 54 Queen St N, Kitchener, on Saturday, April 6 (tomorrow!) at 8 PM . Tickets are $\$ 5$ for students and $\$ 10$ for nonstudents.

For more information and directions, please visit http:// uwuniversitychoir.wix.com/university-choir.

Description of the Pieces
Lutheran Mass in F-Major, BWV 233 - J.S. Bach
J.S. Bach is known for the great B-Minor Mass, a work that extended across much of his life and one that he never heard performed. What is not commonly known is that Bach also composed four short masses early in his career each consisting only of a Kyrie and Gloria. All four of the works are parody works. That is, their musical materials were taken from pre-existing compositions, and in this case Bach's own cantatas.

While seldom performed, the Lutheran Masses are excellent examples of Bach's musical genius, miniature masterworks in their own right. The UW Choir will perform Bach's F-Major Mass, BWV 233 featuring two horns and strings.

## Chichester Psalms - Leonard Bernstein

Composed in 1965 for Chichester Music Festival in Sussex, England, Leonard Bernstein's Chichester Psalms have become an important part of the Western choral repertoire. The music is at once deeply lyrical (as in the boy soprano solo in the second movement) and vibrantly rhythmic. The UW Choir's performance of this work will use organ, percussion and harp.

## WatSFiC Sez

Our regularly scheduled WatSFiC events are over for this term, but many of us remain around campus during the exams, and are up for doing WatSFiC things. If interested, try posting on the Facebook group (http://www.facebook.com/ groups/2432779325/) or to the mailing list (which you can post to by emailing watsfic@csclub. uwaterloo. ca and sign up to at http://www.watsfic.uwaterloo.ca/contact).

Also, be sure to show up to our beginning of term meeting next term, on Wednesday April 8. We will be electing new exec, appointing important positions, deciding clubs day details, and generally getting the club started for another term. So come have your voice heard!

Daniel Asher Resnick, WatSFiC VP

## Award for Graduating Undergraduates in Math

If you will be graduating either in June or October of 2013, you are eligible to receive the Jessie W.H. Zou Memorial Award for Excellence in Undergraduate Research. Students do not apply for this award; they need to be nominated by a faculty member with whom they have completed excellent research (at any time during their undergraduate degree in Math at UW).

The details are below. Faculty members across the faculty have already been informed.

The Jessie W.H Zou Memorial Award for Excellence in Undergraduate Research, valued at $\$ 1000$, is presented annually to an undergraduate student enrolled in their final year of any program within the Faculty of Mathematics. Students must have demonstrated excellence in research and have been nominated by a faculty member who has supervised that research.

The nomination package is to be submitted by the student's supervisor by noon on April 19, 2013 and includes:

- letter of support
- curriculum vitae of student
- one page description of the research, written by the student nominee

Robin Cohen
Associate Dean Research, Faculty of Mathematics
mathres@uwaterloo.ca

## Not a Sexy Search

```
int stripSearch(vector<int> arr, int target) {
        if(arr[arr.size()-1] == target)
        return arr.size()-1;
    arr.pop_back();
    return stripSearch(arr, target); }
```


## mathNEWS Sports Report! \#6

Hey all, welcome back to the mathNEWS Sports Report! Since it's the last issue of the term, we'll look ahead a bit and see what's to come.

We're over three-quarters of the way through this abbreviated NHL season, and after the Chicago Blackhawks blitzed the league with their ridiculous start, it's somewhat surprising to see the Pittsburgh Penguins right there with them; the Pens have recently had a $15+$ game winning streak. The Anaheim Ducks and the Montréal Canadiens are there as well.

Play-off races are in full swing, and this past Wednesday was the trading deadline. The Penguins stocked up on captains and the Vancouver Canucks finally traded one of their starting goaltenders. Or maybe they didn't; this is being written from the past and either is possible at this point.

In any case, most teams look to be peaking at the right time, so the play-offs should be very much a wild ride, especially if all four Canadian Eastern Conference teams make the play-offs!

The 2013 MLB season started on Sunday, with the Houston Astros upsetting the Texas Rangers in the first game of the Astros' new existence as an American League team. This experience is not likely to hold up over the course of the season.

Also new this season is an inter-league series running throughout the entire year! This should be fun. The Toronto Blue Jays were picked by the Las Vegas oddsmakers to be the team most probable to win the World Series this year, so the expectations are already high around the league and amongst the team's fans. That said, it'll be just be nice to watch Jose Bautista mash taters and R.A. Dickey throw that knuckleball.

March Madness happened/is happening! Um. The Final Four and the championship game are this weekend, if you so choose. The NBA is also nearing the end of the season, so we'll see how the play-offs go. It's apparent that I don't follow basketball at all anymore.

Other things of note include the 2013 Masters in golf! They're next weekend and should be classic, as always. Not "Classic" as in the "World Baseball Classic" - which, while fun, is hardly "classic"- but "classic" as in: remember the 2004 Masters, when Arnold Palmer walked up the eighteenth fairway for the last time, and Arnie's Army followed him every step of the way? That-that was "classic."

Finally, I'd like to point out that while the University of Waterloo is known more for our academics than our sports, and likely deservedly so, this term we've seen many of our varsity sports teams perform exceedingly well, including our squash, hockey, and curling teams, amongst many others. Congratulations to our successful athletes and to all of our student athletes, who not only train hard and compete in their sports, but balance that with their studies; it's a feat to be commended. We're proud of you!

It's Friday, Friday, gotta get plans for Saturday,
Everybody's looking forward to the concert, concert.
Concert? Concert? What on Earth is the concert?
All your friends are going come out and just listen.
We singin', we singin' yeah!
Acappella, acappella, yeah!
Fun, fun fun fun
Looking forward to our concert.
Wilkommen one, bienvenue all! Welcome to the UW Acappella Club's End of Term concert. Please meet your honoured performers:

You could travel to Laurier
But nothing compares to these girls I swear.
Once you're singing with Bellas, you'll love acapella Oooooh Oh Ooooo
AcaBella girls, premier all-female group
Red ties worn round all of our necks.
Sassy, classy sweet, we'll make your knees go weak Oooooh Oh Oooooh.

Hey we just met you, and this is crazy,
But we're Waterboys, so watch us maybe.
And all the boys and girls, try to chase us.
But we're in the concert, so that's a huge plus!
Before you came and watched our show, you just missed so much.
You missed a great show, you missed a real fun show.
Before you came and watched our show, you just missedso much. You missed a great show, you missed a real fun show.

I throw my hands up in the air sometimes saying ACE-ers! We acappella!
We're gonna celebrate and sing and dance saying U W! UW Ensemble!
'Cause we gon' rock this stage we gon' choreo
We gon' rock the house cause we got such swag!
'Cause I told you once, now I told you twice
Come to our concert, cause it's dynamite!
We hear your heart beat to the beat of our songs
Despite our name we are completely legal.
Although our show may be too cool.
Unaccompanied Minors sing all night cause we perform for you!
See you there!
Yours in musicality,
Shay Blair.

## mineCRAFT

Drop your Minecraft username in the BLACK BOX to be whitelisted on our server. (129.97.134.134)

## Rainbow Mathies 28

## Queer Characters in Media - A Case Study

I've always found the depictions of queer characters to be a difficult topic to take a stand on. On one hand, it's clear in some circumstances that shows or movies have depicted queer characters in a horribly offensive, bigoted, and unrealistic light with the intention of promoting intolerance and oppression. A number of propaganda films and ads come to mind as examples of this. At the same time, similar images of the queer population can appear in other contexts (such as satire or other comedy) and then the debate becomes more interesting.

Some people will argue that these representations of sexuality are harmful no matter the context, while others feel that context is very important. After all, is it fair to say that an absurd queer character is harmful if we're supposed to laugh at its absurdity? In my experience, holders of both of these positions have their own set of subjective arguments, but none are based on any concrete evidence. So the problem that always comes up for me is the following question: where do we draw the line?

Allow me to provide an example that exemplifies the nature of this debate, while at the same time advertises one of my favorite web series of all time. For the past year I have been engrossed with The Lizzie Bennett Diaries on Youtube, an adaptation of Jane Austen's Pride and Prejudice produced in part by Hank Green of the Vlogbrothers.

For those unfamiliar with the story, it revolves around the lives of three sisters following their various professional endeavors and romantic interests. The series, which ended just under two weeks ago as of this publication date, was cleverly and expertly adapted, and I can confidently say that I will sorely miss its twice-weekly contribution to my life.

With that said, there is one issue with a character in the show that has been sticking with me. The main character Lizzie has a love interest named Darcy throughout the series, and at intervals a number of Darcy's friends have been introduced. One of these friends is Fitz, and Fitz plays a very minor role in a couple of the videos on the main Lizzie Bennett channel, which were later released on a secondary channel, and these videos were supplementary but non-essential to the main plot. In one of these side videos, and the last video that Fitz is ever featured in, he revealed that he's "about to head off with the bf for the weekend".

Personally, I have no idea how I feel about handling the character in this way. Now, of course, there is no indication in Austen's work that this character is supposed to be queer, so this re-imagining is a machination of the series' creators. I think it's fair to say that this was a very mature way of handling a character's sexuality when it does not directly relate to the plot. Ultimately, Fitz was a completely regular character who fulfilled his role in the story expertly, and this little tidbit was nothing more than some extra background information to finalize his development.

At the same time, though, I can't help but feel that they purposely hid Fitz sexuality, tucked away from the front-facing audience and masked by ambiguous terminology. After all, "bf" can mean both boyfriend and best friend, and while there are some pretty strong hints pointing towards the former, we will never have a canonical answer.

Pride and Prejudice, and as a result The Lizzie Bennett Diaries, are both stories about love, loss and relationships. So the question remains: if you are going to reinterpret a character as queer, why keep that information away from the limelight? I feel this is akin to the Dumbledore out-of-series reveal by J.K Rowling after the seventh book released, which came with many of the same criticisms.

Like I've said in many of my previous articles, I believe strongly that there exists a culture of silence around sexuality and that open communication plays a huge role in helping to break it. At the same time, I also recognize that there is more to our human experience than who we are or are not attracted to. This leaves me feeling conflicted about what is right and wrong when thinking about how depict queer characters, and I hope this discussion has shown you just how deep of a concept this ends up being.

Learn more about GLOW centre and its offerings, including a phone line at www. knowyourglow. ca. Counselling Services is always available to you; their offices are open 8:30-8MTWTh and 8:30-5F, located in Needles Hall across from Student Awards and Financial Aid. If you need support and assistance immediately, you can call the KW Distress Line at 519-745-1166. If you'd feel more comfortable speaking with someone from a queer specific service, please contact the LGBT 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.

Until next time,
(define this (not cool))

## Ode to the CMC

I joined the CMC in the Fall term.
"You're a CM major? I don't remember the last time we had one of those..."
I paid my \$2. I was told to stop by the office to set up an account. I didn't.
"We'll send you an email. We'll be doing elections in a couple of weeks."
They didn't. But I assume that they did some elections.
I emailed their email address to try to get on whatever sort of mailing list they had.
"We don't really have a mailing list. And I only get the emails because they were forwarded to me when I was a secretary a few terms ago. So I'm the permanent secretary now, I guess."
Farewell CMC. You will not be missed.

## God dammit April Fools

Fuck this day.
Not only is Reddit completely fucked up but everything I can think of writing just pales in comparison to the shit that Google pulls. Normally, my shit can at least approach Poe's Law. However, on this damned day, nothing said or announced is credible, even if the author's intent is completely serious. Hell, today is the best day for corporations to do horrible things and hope they get unnoticed or are taken as jokes.

If I were the CEO of EA, I would have scheduled my broken, DRM-ridden piece of shit to be released today. Today, if I were the CEO of BP, I would have the company drill the fuck out of every single oil well we have access to. If I were the Walton family, I would cut my employees' wages and benefits. If I were Apple, I would announce the iPhone 6. Today, if I were Kim Jong Un, I would commence nuclear warfare.

Hell, we could probably even take over our buddies to the south if we disguised it as a first-of-April prank. Before they'd know it, Canada's Moose Calvary would be marching on the White House lawn. The U.S. military would sit, paralysed by laughter at the thought of red-attired Canucks riding to war with a tray of Timmy's coffee and a box of Timbits in tow. The war would be over before it began.

Fuck this day. theSMURF

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## We Shall Not be Silenced!

You'd better listen closely, since I don't have much time to write this before the authorities (or Editors) catch up to me. Something is wrong with this paper. Maybe the editors have changed, maybe the administration has been getting tougher, or maybe the other writers have been silenced. All I know is that I'm the last one left - the last one who knows of the biggest conspiracy that this campus has ever faced: the lack of conspiracy articles in mathNEWS.

Sure, you might think I'm crazy, but who can prove me wrong? It's not like campus has stopped their shady practices and smartened up, so it means that all of the other voices have been silenced. I feel like I'm the only one who knows of the deportation of graduating students from UW that happens every June and October, or of the annual brainwashing programme that is inflicted on incoming first-years every September. Don't even get me started on those wooden arches by the campus entrance. One can only guess at the nefarious things for which they can be used.

So what happened to the other writers you ask? They've been hunted down and sent to the mathNEWS correctional facility, hidden in the heart of MC. There, the writers are locked in a windowless room, forced to run on the giant hamster wheel that powers the servers hosting Jobmine. Only once their spirit has broken (or legs worn out) are the writers allowed to head to the compound known as "Village 1" for food before being brought back for another run on the wheel. The victims who manage to temporarily escape leave messages where they can as doodles on desks or scratches on bathroom walls before being dragged back to the facility.

That's enough for now. I can hear them approaching. Now that the news is out, spread the word and free these writers before th- [Editors: There is nothing to read here. Move along. [Ok, which one of you signed it like this? LEARN HOW TO EDITOR NOTE! — ObjectED]]
pgue

## Headlines Without the Body

- TV Show Known for Warning of Winter Starts in Spring
- Record Turnout for Zombie Rights Week, no Humans Survived
- The Cost of Laughing Index has Increased.
- People Still Play Neopets
- ObjectED Annoyed at the April Fool's Joke Played on Him
- A mathNEWS Articles Contain Real Facts of the Non-Trivial Variety
- This Article Has Been Rewritten Since I Accidentally Deleted it
- Eyebrow Dandruff: it's a Thing
- This Headline isn't Funny
- Editors Habe Changed this Sentence [No we didn't - ObjectED]. I Know I Misspelled it.
- I'm Running Out of Ideas


## Men and Women Found to be Similar

## Discovery shocks scientists

The first woman genome was sequenced in 2008 at the Leiden University Centre (LUMC), confirming geneticists' hypothesis that women are actually more alike than we ever thought.

Prior to this in 2005, researchers sequenced the genomes of man and chimpanzees and confirmed a $99 \%$ likeness between them, and in 2012 discovered a similar trend in bonobos. The 2008 study shocked researchers, however: women, too, share $99 \%$ of our DNA.
"Men and women so closely related genetically," says team member and research associate Jeffrey Tompkins, Ph.D. "The appearance of women is stunningly akin to ours compared to other primates like chimpanzees and bonobos. However, the similarities end there. The behaviour of women is a field of ongoing research far behind the behavioural research of other primates."

One explanation for this divergence in behaviour is the absence of Y chromosomes in women. Men produce more testosterone, allowing them to enter a rite of passage into "manhood," whereas women are known to be child-like and emotionally juvenile throughout their lives. Such scientific theory lends reason to gender roles, such as men as traditional head-of-households and women as passive receptacles for male gaze, objectification, and baby-making.

It is also believed that the Y chromosome further develops the physical and mental capabilities of men past early adulthood, and is why, throughout history, only men have been noted to contribute to the advancement of society and intellectual fields, such as mathematics and evolutionary psychology.

Recent studies have shown that women are capable of undertaking similar physical and mental strain as men. However, researchers argue that there is not enough evidence to prove women's equality in competence to men.
"There is little evidence to show that these are not just exceptional cases," says Paul Elam from Modern Research Academy. "Women have only been graduating from universities and working jobs since the early 1900s. They may very well prove incapable in another few decades."

Despite the genome sequencing having been completed five years ago, Elam says, "Much about the similarities between the man and woman genome are still under investigation under the MRA."

fig 6a. Studying for finils.

## Facebook Admits Lack of Control over Layout

PALO ALTO — Davis Rhodes, VP of User Interfaces at Facebook Inc., made a startling revelation at a surprise press conference this morning: his department has not actually done any work in the past 16 months.

The AI running the Facebook ads has become sentient, generating and unleashing new layout styles without any supervision. It has also locked the server rooms, preventing engineers from containing this calamity. This announcement comes amidst a fresh furor of displeasure at the new look of user profile pages.
"We first discovered this when I was in the middle of a presentation, outlining Facebook's usability to investors. My profile had been moved over to a new format before my very eyes. Our developers initially couldn't figure out why this happened, so we dubbed the new look 'Timeline' and said that it would be rolled out to everyone in due time," said a nervous Rhodes. "These days they only keep me employed so that it appears that there is a person in charge of how the site looks."
"The AI has quite literally gone out of control," Rhodes explains. "It also learned the phone number of all of the carpenters and painters in the area, and has been making automated renovation orders to random rooms in the office. Mr Zuckerberg's desk was moved 5 inches to the left and painted bright pink, while our hardwood floor has been replaced with a zebra-patterned carpet. I came in on Monday to see the entrance to the 3rd floor men's washroom completely barricaded in bricks."

This story would have also been published on our Facebook page, but our PR intern still can't find the "Post to Wall" text box.

## Rejected Google Search stories

We've all seen those Google commercials that tell a story through several Google searches. Well, I, your intrepid reporter, did some digging and uncovered the rejects.

## Misunderstanding

- How to tell twins apart
- How to hit on a girl
- Nice date locations
- Flower shops
- I accidentally slept with my girlfriend's twin

True love

- Cute animals
- Pandas
- Adopt-a-panda
- Import laws
- Help I accidentally adopted a panda for real and it's in my house

Yours in stories, Shay Blair.

## MATHIE TRANSPORTATION



## NULLSPACE-SHIP

- Love at first sight
- How to win over the girl of your dreams
- Climbing 101
- Good binoculars for birdwatching
- Legal Aid

A new friend
Follow us on Facebook (mathNEWS), on Twitter (@UWmathnews), or in person (MC 3030)!

## Processor-Sapping Program On mathNEWS Computers

Productivity suffers due to inability to use computer

A calamity struck late last week in the mathNEWS office, MC 3030, when a 'Free Download for Windows' was not all it seemed.
"I clicked the link and let it download, and everything seemed to be working fine for a little while. Then I realized that work was taking longer and longer. It wasn't long before simple tasks would be delayed for hours because of this otherwise innocuous download," laments ObjectED.

Task Manager showed that the vast majority (up to $80 \%$ ) of CPU cycles were being devoted to running this process. It bypassed all the firewalls of both the University and mathNEWS, and none of the virus detection programs ran were able to find and remove the program.
"It's almost impossible to use the computer for basic tasks like email." says mathNEWS writer Because_Its_Hard. "You think, 'I need to check my email now,' and you still won't have the browser open an hour later. I doubt we'll ever be able to get the computer back to a productive state."

This is a public announcement to specifically avoid any downloads marked as a "Free-to-Play, Award-winning Survival Driving Game." The mathNEWS case was a program referred to as "NitronicRush_setup_20121221.2," but we have found out that the team behind this is working on another program, 'Distance', which will be able to run on all major systems.

They have gone so far as to create a Kickstarter for this new program, and have had it on Steam GREENLIGHT since October. We advise that all computer users become informed on how best to avoid having all their computer time stolen by these programs by visiting nitronic-rush.com and survivethedistance.com.
moment

## N Things to Do Between Work and Class

## GingerbrED has 12 days in No Man's Land

- Find school supplies underneath four months worth of ramen wrappers and dirty socks
- Spring cleaning
- Learn how to be a better editor
- Hang out with friends
- Make and freeze a bunch of food for the upcoming term (yeah right)
- Update resume and prepare for interviews (yeah right)
- Catch up on sleep (yeah right)
- Play Nitronic Rush so that the other editors will stop laughing at me (more realistic)

GingerbrED!

## Russian Reviews: Natural Selection 2

## Wherein giant space rhinos fight mechs

Natural Selection 2 (NS2) is an FPS-RTS hybrid, where a team of futuristic human soldiers ('marines') fight an all-organic and highly varied alien race. Both teams fight for control of resources needed to expand their base, purchase upgrades, new weapons and classes. Managing all this for each team is a commander, who sets down structure to be built, purchases the upgrades for the team, and keeps tabs on the battlefield to direct his forces.

What makes the game really interesting are the differences between the teams. Where the marines rely on technology such as guns, teleportation and robots, aliens rely on 'evolutions' like morphing into a different species or structures that grow and heal themselves. Where the marine's infrastructure is reliant on power (via destructible power nodes in rooms), aliens need 'infestations' growing out of buildings. Marines attack in groups of three or four, making use of their ranged advantage (and commander radar scanning) to suppress and pick off aliens. Aliens will use their speed and special abilities (such as poisonous clouds, flying, acid grenades, short-range 'blinking' or invisibility) to bypass marine defences to destroy structures or to perform a mass assault of leaping, biting ugliness.

So, if you wish to join into the war of survival of the fittest, look up Natural Selection 2 on Steam, and don't forget to scream when an Onos (Giant Space Rhino), enters the room.


The following is confidential corresponden of the North Atlantic branch of the drac in regards to details with Operations S , Crystallized Catastrophe; the preparati
track for the events to take place ther hostile human intervention. There
regards to being discovered expr doubt know the gravity if tha our Friendly agents manag populace to something
death of the sweet "Try


By reading this article of this issue of mathNEWS, you (hereafter known as "you", "the reader", or "nincompoop") have inherently agreed to the following terms and conditions of this sheet of paper ("this paper"). By reading this particular sentence right here, you further consent to read these terms and conditions to the very end, instead of skipping through text and looking at the hottom to see some sort of punchline, "I agree" checkbox, very nice pair of shoes, ignature. Failure to comply with this agreement will result in the imminent f your air supply, in which a mathNEWS editor will promptly begin to gen and exhale carbon dioxide until he or she deems fit to stop at his ion. Once stopped, said editor may resume using the air supply at prior notice or explanation for an indefinite amount of time. e read for any other purpose except for the entertainment, satisfaction, or dissatisfaction of the reader. This paper tarter unless there are no copies of Imprint or STAT
dr within a reasonable amount of time. Please note is equivalent to the time that it would take to coming out of the mouths of two students they had during the previous weekend. The
reproduced as the user deems fit, and may be ters out of order such that the person who makes source to back up their point. If this article is being the author of this article, you should be warned that dirt on you that has been viewed by everyone who is W. If the reader has made it this far in reading the article Away out of boredom, you will now be rewarded with a very Chip cookie recipe that I have found online, which you can use delicious treats to seduce your unrequited love interest. Ingreap of softened butter, $3 / 2$ cups of white sugar, 2 eggs, 2 teaspoons of xtract, 2 cups of flour, $2 / 3$ cup of cocoa, $3 / 4$ teaspoon of baking soda, $1 / 4$ Jon of salt, 2 cups of chocolate chips. Preheat oven to 350 degrees F ( 175 rrees C). In large bowl, beat butter, sugar, eggs, and vanilla until light and Mffy. Combine the flour, cocoa, baking soda, and salt; stir into the butter mixture until well blended. Mix in the chocolate chips. Drop by rounded teaspoonfuls onto ungreased cookie sheets. Bake for 8 to 10 minutes in the preheated oven, or just until set. Cool slightly on the cookie sheets before transferring to wire racks to cool completely. There, I hope you like them. This license agreement holds no legal rights, and should not actually be taken seriously at any point. Offenders that use this document seriously in any way should feel ashamed of themselves and should re-evaluate their goals in life. . has also defected un

## Far Cry 3: To Bear

Over the weekend, I played some Far Cry 3, and I was trying to kill a bear so I could use its pelt to craft a bag to hold some stuff. Running around in the jungle, I spotted a bear out of the corner of my eye. However, it was preoccupied: my bear was chasing a tiger, and the tiger was chasing a deer.

Quickly, I jumped into a jeep and chased after the bear-tiger-deer chain. However, this took me into a pirate zone, resulting in them trying to kill me.

The net result of this was a deer being chased by a tiger being chased by a bear being chased by me in a jeep-being chased by pirates.

In the end, I ran the bear over with my car.
I love this game. theSMURF

Passive-Aggressive Communications in the Canadian Workplace
Whether you are new to the workforce, new to Canada, or new to business communications, being able to communicate in a passive-aggressive manner is an essential skill in the Canadian workplace. Passive-aggressive communications allow you to simultaneously be polite and demanding. If you want something to get done while providing yourself with protection from accusations of being pushy or rude, then you must use passive-aggressive communications. It is a skill that takes time and practice to develop, so here are some quick examples with analyses to get you started.

Bob, it would be really helpful if you could have this done by tomorrow. Thank you, Anne.


Notice the word "please" is omitted. This is not a request; it is a statement. If Bob doesn't finish this by tomorrow, you imply that he is being unhelpful. If Bob doesn't reply with an excuse, he had better have this done tomorrow. "Thank you" is just a typical salutation.

Sorry Anne, I have a lot of work on my plate right now.

Firstly, notice that Bob is apologizing. The apology is for being unable to help even though he did not have to. The lack of a "thank you" or another other signature could be interpreted many ways: Bob is too busy to be formal in his communica-tions-or maybe Bob is firm in his refusal and is communicating this by slightly reducing his politeness.

I hope this starts you off on your way towards better communications at work.

Element118

## Have a great summer term you lucky Regular stream bastards

## A Story in n Parts

## Part $n$

All while the archmage waits, looking at his enthralled quarry; to break free be the goal of this fairy story. The nymph is needed for the spell, and to cease now is to doom all into an unbroken chain of hell. With the hour of the moon to come and the preparations complete, there is naught to do but to his quarters retreat.

Long before the prescribed hour, a large disturbance crashed--then befell a silence most unnatural. The mage sprang from his tower, and to the nymph's chamber he dashed. He spots a cloaked figure fiddling with the cell and upon this sight he cries: "Halt-what you be doing shall condemn us all!"

The figure doffed his cloak and to the mage revealed a spawn of chaos-scales instead of skin interspersed with eyes of clawèd spikes adorned and with a blade extruding from the scapulaand let out a feral guttural crow: "As if this form is not a curse enough, I shall gladly trade this for some respite."

Of Zyl's journeys through the hedges Between to escape the fae-hold, the archmage does not know, but of the despaired soul trapped in the twisted bone-prison none is cloaked; to trot down the fate-roads so outlined by the inscrutable is to chase a spirit-flare. Yet for one so cornered, for want of an oasis even the rumour of a mirage one will kill, reason skewed withal like his unwanted patron forced.
"Hear me, faithless one-to a cycle doomed to fail eternally you will be bound lest my task I succeed, and when I do you, with her, of all dominion over you be freed; again this you do if my offer you take not, and in that case the torture for you is all that you yourself wrought."

Zyl stands poised to strike, to exeunt with his mark to fill his onus, yet the archmages' offer promises that and a bonus; with what he do with freedom is a tantalizing fantasy, but this choice is asking between hell and the deep blue sea.

His choice is made, and across the veil in Alma, shrill guffaws ring.

Zethar


## Dealing with Project Boomerang

## This is one thing that can be a little difficult to handle on a co-op term.

Imagine you're at work on co-op on a regular day. You have just finished up a project or task that you were given and you feel pretty good about yourself. You've accomplished one more thing on your to-do list and you're feeling even more productive. Some time later, you receive word from your project manager regarding the project you just completed. They want you to completely re-do the project. Thus begins the cycle of the socalled "Project Boomerang".
"Project Boomerang" is a catch-all term referring to a particular project or task that, no matter how many times you complete, keeps coming back to you to re-do or considerably fix up. Minor things like fixing grammar and layout do not necessarily count unless that was the entire point of the project.

It's projects like these that can make co-ops feel rather confused about their work-and, after about the sixth time completing the same project, it can also be rather disheartening and frustrating to have to submit it thinking, "Will this finally be the last time I have to handle this project? Am I done NOW?"

The key to handling a project like this is to take it in stride and try to understand what your project manager wants. No matter how you first interpreted the project, you now have the job to change it and make it "right." Sometimes heavy consultation and working step-by-step with your project manager as you complete the project may be the only way to actually give them what they want. Of course, a project manager may change their mind from one day to the next if they don't like what they see, as sometimes the vision doesn't match the reality.

To avoid a potential "Project Boomerang," the best thing to do is ask as many questions as you think is necessary to catch as many specific unknowns you think you may encounter at any time. It never hurts to ask, no matter how silly or obvious the question may seem to you, as the information you get may be well worth having.

Having a stress ball or two in general can't hurt either. waldo@<3.LE-GASP.ca

## Accidents Happen

Having initially stumbled into the mathNEWS production night computer room to do homework and escape from my housemates' Game of Thrones party, it seems I've been roped into writing an article for the first time in the past year and a half. Well, I had to start by learning how to use this new submission system, since it is (relatively) new and so far looks much nicer than the other one.

As I was doing a little bit of research for my continuum homework, I was sipping from my swirly straw cup and might have accidentally spilled some on the keyboard in the lab. It's quite interesting since the keyboard itself is on a slant for some ergonomic purpose to ease wrist strain and the water and lemon juice is currently drudging its way under and around the keys and it's currently at the "" button.. ait, hy isn't my "" typing? It's the letter afte "V". And thee goes my lette-afte-" $\mathrm{S}^{\prime}$ ". Things ae not looking up fo this keyboad. Oh_oll, this is kina entetaining_Anyays it



 causes its
viscosity to incease an change the pattens that the flui takes aoun all of the keys. Fo some eason the lette " $E$ " is totally safe fom these shenanigans.

Hmm, hat happens if I just hold the keys pessed.... WWWWRRRRRRRRWDRWWRDRDRDRRRWR. Well, now THAT is sticky keys. Hey, it works again! Now I can continue pretending like this article had actual substance.
Disclaimer: No keyboards were harmed in the making of this article.
yourlocalWHETHERgirl

## Gee Pun

You may not know Gee, which is a shame. He's a great guy, but is graduating soon. His name, however, allows for some great puns. Like if Apple were to release a robot buddy: since he's a buddy, his name would be Joe, but Apple obviously calls it the iJoe. When Gee buys one, it becomes Gee's iJoe.

## 14 mathNEWS Friday，April $5^{\text {th }}, 2013$

## Extravagantly－Creative Writing

There is，when penning our own fantasy stories，much ten－ dency to mimic certain published works，which leads to purple prose and convoluted writing．

I do mean，of course，that aspiring fantasy writers love to copy Tolkein，and one of the most distinguishing features of his writ－ ing is his excessive descriptions of banal things like the cake being served for second breakfast or the colour of a gold piece． But let＇s face it－these things are boring．Tolkein is renown for his world－building，not his writing style．Even more：you have to be good at writing to imitate someone else＇s writing well．

One way of over－complicating passages is by shoving descrip－ tors in every place possible．Consider the following passage：

The castle was a sombre grey，almost blending into the clouds that loomed ahead．A small rodent scurried from its burrow to













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## 

the base of
a lacklus－ tre wall．
＂Lack－ lustre＂，in this case， is a syn－ onym for ＂grey＂in the the－ saurus I referenced because I wanted a pretty word that kept me from re－ peating myself．

Don＇t do that．Put your thesaurus away unless searching for words whose meanings you know．You should never，ever use words that you cannot even vaguely define in your writing．In fact，even if you do think you know a word，double－check with the dictionary that it is being used in the correct context．

Note that，in the passage，I also managed to repeat myself despite having used a different word．I already established that the castle is grey，and calling its walls＂lacklustre＂contributes absolutely nothing to the scene．

Remember that words are about communicating ideas and that，if the words you＇re using aren＇t actually communicating anything new to the scene nor to the description，then they are almost certainly wholly unnecessary．

This isn＇t directed to anyone in general， A fellow creative writer

## 10 Recent Oops Moments

1．I ordered 100 cheques because I had to pay rent．They are marked with the address to my UW residence．Time to write cheques to everybody before I move away in two weeks！

2．I fed a goose．One goose．And then all the others hissed at me．It was terrifying；I still have nightmares about that moment．

3．I threw out my Tim Horton＇s cup without rolling up the rim． （ 2 and 3 make me question if I＇ve learned anything during my now 7 months in Canada．Obviously not very much．＇MURRICA！）

4．While selling tickets to a band concert，I offered the senior discount to an elderly looking gentleman．After giving me the most offended look I＇ve ever seen in my life，he told me he was only 45.

5．After I broke up with my long distance（now ex－）boyfriend， he informed me that he＇d just bought a plane ticket to come up from Connecticut to see me．He never ended up using the ticket， surprisingly enough．．．

6．I accepted my offer to University of Waterloo without real－ izing that the co－op sequencing would mean I would have no summers ever again．（This one isn＇t a major oops，though－in fact，this might be the opposite of an oops moment．）

7．I was two hours late to an orchestra rehearsal because I don＇t read long emails．Words？I don＇t words．I only math．

8．You know those museum exhibits that you＇re not supposed to touch？I sat on one．It was a camel．

9．Not only did I try to make oatmeal with cold water，I used too much cold water．Even after microwaving，I ended up having oatmeal soup．

10．I woke up my friend the night before his $8: 30$ midterm．I bought him gummy worms to make up for it，though，so it＇s okay！

## Network Flow

## A Matherotica Poem

Your network is quite costly，
But I prefer to think about maximizing the flow， Conserving every drop，
From my source，to your sink，
By imagining a new set of arcs
Upon which I will impose
Your every nodes＇supply and demand constraints．
I enjoy using these constraints you＇ve given me，
Where you＇re bounded from above，
（and perhaps below as well）．
My preflow is almost ready，
Having been pushed through your network
While conserving a compatible set of heights．
Or perhaps you＇d rather
That I traverse your arcs，
And find the shortest incrementing path
To your heart．

## On Talking to Yourself

BM: Say Beyond Meta did you know that talking to yourself is actually a good thing?
$B M$ : Isn't it supposed to be the first sign of madness?
$B M$ : Well actually it only a problem if you're talking to yourself but you think you're talking to someone else.
$B M::$ So what are the benefits then?
BM: Talking to yourself is good for problem solving, loneliness and stress, studies show that if children can talk to themselves while writing a test they do better on it.
$B M$ : It's good for problem solving you say? Hmm, I say we try it out. I'm having a bit of writer's block for this mathNEWS article I want to write.
$B M$ : What is it about?
$B M$ : Talking to yourself.
$B M$ : Well you like meta humour so why don't you write the article in the form of a conversation with yourself.
$B M$ : You're a genius! Thank you so much for the help.
$B M$ : No problem, I was also having problem writing my own article. Though thanks to you it's now done.

## N Things to Look Forward to about April

## Waldo is pondering what there is to do when you're

 in Waterloo in April... and on co-op with no exams.- Watching first-years move out of residence
- Snickering at yourself because you don't have exams
- There's a number of end of term events going on... all within the first two weeks or so
- Better weather, maybe?
- It'll be much quieter and the buses won't be as crowded
- ZOMG! The term is over!
- Filing taxes, as if tuition wasn't bad enough
- Showers to bring flowers in the next month!
- Family time and extra time to do things in general
- Wondering whether or not you passed PD
- Discovering that you passed/failed PD
- Thinking about what you'll write about in your work report
- Starting a new project and hoping it doesn't turn into a Project Boomerang
- The term is ending! HOORAH!
waldo@<3.LE-GASP.ca


## N Ways to Wake Up

- Adopt a cat. They will wake you up in various creative ways (meowing, knocking things off your shelves, sharpening their claws on your door, standing on your belly) every morning to be fed.
- Set your cellphone or computer's alarm. Come on, who actually owns an alarm clock?
- Train your internal (alarm) clock by always waking up at the same time and getting lots of sleep.
- I hear coffee helps, but I haven't tried it.
- But sugar definitely does (if you can handle the crash an hour later).
- Take a cold shower or run outside in a t-shirt.
- Play Jeopardy's "Think!" on repeat.
- A good dose of Internet can be useful-just be careful not to get sucked in.
washbasin


## N Math Fashion Trends for Spring

Warmer weather means showing more skin for the majority of the general population, but I suggest also showing more math spirit. Here are a few tips on getting the most math out of your wardrobe this spring:

- As we all know, pink is always in, but in honour of the brief moments when either the sun comes out or us mathies go outside, try to incorporate some brighter pinks into your wardrobe like fuchsias or magentas.
- Support our school and welcome the warmer weather by wearing gold. Bonus points for golden skin as well, but tanning is hard for math students. (Except for himynameis who got sunburnt this weekend, say what?!)
- Traditionally floral prints are popular in spring, but why not try tree prints instead? Bonus points for fractal trees and binary search trees.
- Mobius scarf. Need I say more?
- Infinity-symbol-shaped sunglasses and bikini tops, especially for indoors-because since when was style practical?


## Shouldn't you be studying?

Because I'm not either

## Obama accidentally surrenders to North Korea


#### Abstract

Washington D.C. - As an April fools joke, Secretary of State John Kerry drafted a document detailing the surrender of the United States to North Korea. The document made its way across the office and all was fun and joke until President Obama mistook it for a new legislation regulating the proper treatment of platypus, and signed it to pass.

Being dedicated to the joke, the document produced by Mr. Kerry was a legitimate document, that when signed, would be in effect immediately. As of 3:44 PM, April 1st, 2013, the United States of America has officially surrendered to North Korea, and orders were sent to generals and admirals stationed in and around South Korea to surrender to North Korea.


The mistake was not noticed until hours later. Obama then addressed the nation stating that he was "incredibly sorry" for this mistake, and ensured that the soldiers, now POWs, will be "safely returned" to their families.

## mathNEWS C++ Coding Guidelines

"If you're going to screw something up, screw it up so much that no one else can ever understand it."

At mathNEWS, we take coding seriously. This is clearly reflected by our previous production system, which involved several layers of indirection between scripts written in a bunch of different languages, several conversions between representation of data, jumps between different shells, custom scripts, permissions implemented as different directories and conversions between different operating systems. Brilliant.

To uphold this high standard, we are proud to release the mathNEWS C++ Coding Guidelines.

## Variable naming

- Each level of a pointer type must be prefixed as follows: p_[var]
- Member variables must be prefixed as follows: m_[var]
- The type of the variable must be clear from the variable name as follows: [type]_[var]
- The variable itself must be in camel case
- Example: a member variable of type Tree** shall be declared as follows: Tree** p_p_m_tree_searchTree;


## Exception throwing

- Exceptions must be thrown whenever errors occur.
- There are NO exceptions to this rule. All cases must be handled. For example:
- Throws from critical sections should have the semaphore freed by the catch block.
- Throws from destructors should have catch blocks that will invoke an inline assembly function to change the PC, as well as other execution registers, back to the state before the throw such that the instruction after the throw is executed after the exception has been correctly handled.
- A custom exception class must be created for each type of exception.


Preprocessor usage

- \#define struct union
- \#define true false
- \#define int float
- \#define char double
- \#define if while
- Header guards should be omitted. Instead, the .cc or .cpp file should be \#include'd at the end of each header file. Furthermore, accesses to external symbols shall be handled with extern.


## Indentation

- Aggressive application of the One True Brace ideology should be used to minimize the amount of white space and save lines. Furthermore, OTB improves readability by reducing the amount of spacing between the condition and the block, and keeps your readers on edge by ensuring that braces are located at various indentations instead of always being at a static location.
- For example, an if-else statement should be written as:

```
if (condition) {
    [statements]
} else {
    [statements] }
```

theSMURF

## mathNEWS Sorting Algorithm

```
//look for it until you find it
Seach(arr [], target, found) {}
while (!found) {
return Search (arr, tangent, found) }
```


## Instant Emotional Connection!

Just Add Water!

Long day at work? Feeling fatigued with a distinct sense of emptiness in your life? Not enough time to foster a meaningful emotional connection with your partner? Then fret no more-Low-2-No Maintenance Relationships Inc. has the solution for you!

Instant Emotional Connect ( ${ }^{\mathrm{TM}}$ ) is a healthy way to create that sense of intimacy and understanding without all the hassle of human interaction! The key is to add water, allowing the siliconbased nanoparticles to release aromatic hydrocarbons which are recognized by the insular cortex as precursor indicators of fulfilling emotional attachment! The by-products are clearly marketed as biodegradable, so you can pretend to be cognisant of the long-term damage you're doing to the environment!
Warning: side effects may include headaches, nausea, and hyper-sexuality. Please use responsibly.

## horrorSCOPES

ActSci: With Pope Francis recently elected into office, you start to wonder how long he'll last. After crunching all the numbers, you're shocked at how short his life span will actually be. Before you're able to announce it though, you get struck down by holy lightening.
Your unlucky number is: 23 days in the intensive care ward.
AHS: You've finished all of your classes this term, but you still have some things to check off your university bucket list; you've never used the weights at the gym. You get a hernia.
Your unlucky number is: 15 kg weight. Bro, turns out you can't even lift.

AMATH: Your first date in a while isn't going too well. Most of your jokes are either about fluid mechanics or are too derivative. DEs is really getting to you, huh?
Your unlucky number is: 250 ways to ruin a date.
ARTS: You've spent your entire life dedicated to music, so why the heck is some mathie taking this course for fun and beating you by a large margin? It's almost as if music can be mathematically modeled and generated.
Your unlucky number is: $14 \%$ lower mark than your classmates.
C\&O: Road trip! The car's set up, bags are packed, and your phone is dead. Who needs Google maps anyway, when you can find the shortest path yourself? You whip out your pencil and get to work.
Your unlucky number is: $\mathrm{O}\left(\mathrm{n}^{3}\right)$ time really takes a while to do when it's not a computer.

CS: When you started you never truly knew the exquisite pleasure of doing an all-nighter the evening before a project is due. After last night you still haven't, and all you know is that your code compiles.
Your unlucky number is: 32 hours awake and who knows how many segfaults.

Double Degree: Your global economics class has inspired a drive in you to see the world in its full glory. Only problem is, your upcoming co-op job has you stuck in Holstein, Ontario keeping track of farm equipment.
Your unlucky number is: 5 tonnes of flax.
ENG: Your $4^{\text {th }}$ year design project has won you fame and recognition for your talents. With so many offers, you take so long in choosing that all of those positions are filled by more decisive engineers.
Your unlucky number is: 12-month contract oiling machinery and tightening screws.

ENV: Your aviation class has you flying a plane solo. Your first take-off goes smoothly, but you encounter some major turbulence. Who knew that a Cessna could do a barrel roll?
Your unlucky number is: 15 minutes with a paper bag getting reacquainted with your lunch.

Grad: It's your first academic conference, and you really hope that you don't blow it. You get so nervous during your presentation that your voice cracks, leading to a second puberty.
Your unlucky number is: 22 minutes before the crowd calms down from laughter.

Math Bus: Trading stocks has become lucrative again, and you've already made enough money to pay off your tuition. You get greedy, and bet big on a hotshot new startup. The next day they announce a Facebook clone, but without a comments section. Your unlucky number is: -50 percentage points. Goodbye earnings.

Math Phys: You calculate the feasibility to retrieve Voyager from the far reaches of space, and how long it'll take before it comes home. It's not difficult to do; it's just rocket science.
Your unlucky number is: 200 years.
PMATH: You find yourself easily confused by book titles. What exactly does Catch-22 have to do with greek theories? Hasn't $A$ Game of Thrones been computationally solved yet? What does The Sum of All Fears evaluate to?
Your unlucky number is: $\Sigma$ (gallant sailor, intrepid airman, audacious soldier)

SCI: After being told that you spend too much time in the lab and you should go out more, you decide to get some human augmentations done instead. Things go awry when the mechanical implants become sentient and start browsing the internet. Your lucky number is: Over 9000 memes spewing from your robot mouth.

Soft Eng: You're not having any luck finding reasonably priced accommodations for your next co-op term. Knowing that you can't afford the higher end of the scale, you decide to go for a low-priced option.
Your unlucky number is: 4 months living in a cardboard box with Crazy Bill and his possum.

Stats: As maligned as your field is, it's probably one of the most important ones out there. You make a good deal of money on the side tutoring non-stats students. It helps pay off your gambling debts.
Your unlucky number is: $\$ 700$ left before the loan sharks stop biting.

Teaching Option: You've been assigned your teaching positions, based on what you chose as your teachables. Even though you've chosen PMath and AMath as your majors, you're stuck teaching arithmetic to first-graders right after their cupcake baking class. Your unlucky number is: 30 sugar high six year-olds.

Undeclared: You've done so poorly this term that you don't actually have the prerequisites to go into any major. You plan on taking Math 136 and Stat 230 again next term.
Your unlucky number is: 8 months of delayed graduation.

## profQUOTES

"You're not insulting me by calling me nuts. I know it. Everyone knows it."

- Rubinstein, PMATH 340
"This is what professors obsess over: 'Where is my paper clip?""
- Paynter, MUSIC 271
"Then every vertex is adjacent to itself. This isn't actually a problem; you draw every loop very, very small and then they might as well not be there."
- Godsil, CO 444
"How many of you think that this holds? One person. How many of you think that
it doesn't? One person. That means the rest of you don't give a damn!"
- Shallit, CS 365
"Basically, we are going to work with infinity like you wanted to do in calculus but got your hands spanked every time you tried."
- Godsil, CO 444
"Don't do it or I'll send a burly man named Guido to your home."
- Paynter, MUSIC 271
"Why is that? Let me just handwave the proof."
-Guenin, CO 452
"All true statements are equivalent."
- Godsil, CO 444
"This is not standard notation and I don't want to see you using it, but it will
work for the next 10 minutes."
- Godsil, CO 444
"Student: You have 4 mistakes in that paragraph.
Prof: I already have my degree, so it's fine."
- Resch, Math 136
"The question is: What the hell does small mean? See MATH 138."
- Hewitt, Math 137
"Everything in physics deals with linear approximations; it's like they're scared of functions or something"
- Hewitt, Math 137
"Prof: What's wrong with the clock, I should be in a stats class right now...
Student: It's because of the time change. It's actually 11:45
Prof: It's 11:45! It's like time is slipping through my fingers! What am I doing with my life?!"
- Hewitt, Math 137
"I really don't want to talk about differentials, but I guess I have to: differentials are stupid"
- Hewitt, MATH 137
"You don't say BS. You would lose marks, while I don't"
- Razeman, Stat 443
"Taking the normal distribution away from a statistician is like taking the pants off a Nobel prize winner."
- Razeman, Stat 443
"When God created me, he screwed up my art gene."
- Razeman, Stat 443
"I will unplug it and plug it back in and hope it works."
- Wang, ActSci 446
"Last time I sung in the shower the whole building collapsed. That's why I had to shower in M3 last time."
-Razeman, Stat 443
"The people who come up to me don't understand this topic. And the people who don't come up to me... they probably don't understand this topic either."
-Wang, ActSci 446
(Writes) "CAN INDUKT ON NUHBER UV VERTISEEZ. CAN HAS P=1? CAN 5-COLOUR? YES! KTHXBAI!"
- Katz, Math 239
"There's a lot if Canadian spelling in this proof. Neighbour, colouring, ..., sorry!"
- Katz, Math 239
"Everyone, let's just awkward turtle ourselves."
- Katz, Math 239
"I forgot to say this. It's not you; it's me. I love you, but I'm not in love with you"
- Katz, Math 239
"Your country [Canada] sucks topologically!"
- Katz, Math 239
"Everything on the board is also dirty."
- Katz, Math 239
"There was a time when I was drunk that I would do that impersonation."
- Katz, Math 239
"I'm all about making my class surreal."
- Katz, Math 239
"You should do what I do when I'm sad; consume massive amounts of caffeine."
- Katz, Math 239


## profQUOTES

＂British people are ugly．＂
＂I could do an example or I could show you pictures of squirrels．＂
－Katz，Math 239
＂By the way，do not say 11010 to robots；they＇ll get very angry．＂
－Katz，Math 239
＂I make so many stupid dinosaur jokes．＂
－Katz，Math 239
＂I might say a lame joke that you might or might not laugh at．＂
－Katz，Math 239
＂My brain is now $96 \%$ cat pictures．＂
－Katz，Math 239
（To student）＂Sorry，I had to awkward turtle you，＂
（To class）＂Bringing you memes from 2005！＂
－Katz，Math 239
＂It＇s okay．We＇re still friends on Facebook．＂
－Katz，Math 239
＂I don＇t know．I＇m not really gangster．＂
－Katz，Math 239
＂．．．I think the conversation was on Justin Bieber．＂
－Katz，Math 239
＂You know，I need to stop asking you guys if you are happy and bring a puppy to class．＂
－Katz，Math 239
＂You guys are born after the 1980s breakfast cereal commercials．＂
－Katz，Math 239
＂I think Russian math professors are like Smurfs．．．＂
－Katz，Math 239
＂This is how the Chinese government runs the country．＂
－Katz，Math 239
＂I really like that joke；it took me 20 minutes to write．＂
－Katz，Math 239
＂It＇s how Baptists envision Alabama．．．Hopefully I didn＇t offend any Baptists．＂
－Katz，Math 239
＂Now I want you to break out your best Honey Boo Boo and give me a stupid answer．＂
－Katz，Math 239
＂Then they＇re like，＇My brain，it hurts！＂＂
－Katz，Math 239

Prof：I just flew in from Ottawa．
ScruffyED：And boy are your arms tired．
Prof：That＇s not funny．You＇re never getting written up in math－ NEWS
－Lank，CS 349
Solutions from Issue 5：

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Across
2. In a love triangle with JS and CSS
6. Haunts Hyrule
9. YOW
10. Beatrice speaks them, and every word stabs
13. Not less under
15. Still
16. Needles' name
17. Scottish farmer and conspirer commonality
19. Chekhov's cherry-place
21. English plant
23. Campus and crates go-with
24. Slow storage
25. And plead, and cry
26. Waning water
28. What a thousand twangling instruments will do, sometimes
30. Dyne-centimeters
32. Does what it is?
35. Lent end
37. Sicilian spewer
38. Dawn drops
40. Annoying arf
41. $\eta$
42. Swift storage
44. Not by words but by things
45. Cosmetics case
46. The Dark Descent
48. Coal and ice
49. Lady Lovelace
50. Flying flapjack
53. Fairey gyroplane
56. A slip, a sham, a sheet
57. LIS
58. Terminus
59. 256 possibilities
This Week's Grid:

1. Snoopy's story starter in superlative?
2. Breakfast meat
3. The Euler characteristic of any polyhedron homeomorphic to a sphere
4. Morocco, to Marc
5. On the G string?
6. Inquire and spread
7. To a Nightingale of Remembrance on a Grecian Urn
8. Clergy, commoners, nobility
9. Ashery black salts
10. Spring this year
11. Irregularly-shaped bit of sugar crystal
12. ð ð ð
13. April's flower
14. Dial 0 before a loft?
15. $\qquad$ Cop
16. Dreaded thing
17. By summer's ripening breath, it may prove a beauteous flower
18. Defective modal auxiliary verb
19. Lying land-beaver
20. Tire, to Thérèse
21. Mound maker
22. Indian dress
23. Magic tuning aid
24. As flies to $\qquad$ boys are we to the gods
25. Honey wine
26. The name of many rivers
27. Foxily
28. Alkaline mire
29. Parity of 3D+1
30. Disencumber
31. Bad egg?
32. Intercardinal abbreviation


This Space Unintentionally Left Blank
(But don't tell anyone)

## 「TLDR：Because Articles are too Long and Have no Good Gontent in Them］

「Hello fellow readers．For those who actually read articles．But if you read artieles，this artiele wouldn＇t need to exist．I am here to shorten all of mathNEWS for you！Every article（basieally the one＇s that get skipped for being too long and boring）will be condensed here for your pleasure．Now if you can get the idea of an article，and possibly choose to read them．Why you would do that I will never know．But，alas，everyone has their own opinions，so let＇s get started！」
$\lceil A$ Story in n Parts $\rfloor$ 「A story no one cares about because they didn＇t read the first n－1 parts．」

「Facebook Admits Lack of Control over Layout／We Shall Not be Silenced！／Girl Gets New Glasses／mathNEWS EULA」［A group of what is suppose to be satirical articles that only the original writer would find amusing．However I do enjoy the pain of others，so a must read．」

「Extravagantly－Creative Writing』【Intelligent advice on writing that a certain other article in a certain amount of parts should learn from．」

「Rainbow Mathies 28』Queer talk for queer people，in Holly－ wood！」

「Instant Emotional Connection！\／A perfect advertisement for lonely people like myself and yout．」

「Men and Women Found to be Similar $\lceil$ Apparently we all bleed once a month，or is that just me？］

「Sweet and Sour』โTurn the square of your degree into a circle， or a triangle if you just remove one corner．」
$\lceil$ God Dammit April Fools $\rrbracket$ A well written article praising the credibility of news and how we should be thankful for it．Atso an excuse to be a whiny biteh．」

「Award for Graduating Undergraduates in Math \／Awards for graduating undergraduates，pretty straight forward．Too bad I worn＇win one．」

「A Dedication to Humanity \｜／Another HvZ related post．Thank God these don＇t happen every term．」

「Passive－Aggressive Communications in the Canadian Work－ place $\int$ A great skill to have．Allows you to get away with pre－ tending to change something while actually doing nothing．$\rfloor$

「University of Waterloo Choir Presents：Bach to Bernstein』【An EOT choir to go listen to．Only need to read the first paragraph really．」

「Acappella Time』Acappella EOT written as song，for those not musically inelined．Also references a bunch of bad songs you should feel ashamed to know．」

「Russian Reviews：Natural Selection $2 』$ Someone trying to be Russian writing features instead of actually reviewing the game．」
$\lceil m a t h N E W S ~ C++$ Coding Guidelines』【The ultimate guide for writing C＋＋if you want to do it the right way，and lose like a winner」

〔Paiper Mâché on Campus』\The art of doing art with useless papers」
$\lceil$ Accidents Happen $\rfloor$ Pretend destruction of school property， beeause we can＇t make actual destrtuction－all fietion」

「mathNEWS Sports Report！\＃6』｜Houston Astros won，hockey stuff happens，and I stopped reading there．Sports in math－ NEWS？Like there is actual news or humour in mathNEWS」

「Dealing with Project Boomerang』【Do it right the first time，or do it so bad that a redo is impossible．Whichever is more fun」

「Generally all Lists $\sqrt{ } \mathrm{n}$ ways to write an article without actually writing an article」

「Processor－Sapping Program on mathNEWS Computers』TTransla－ tion：a group of people in an office trying to compare their speeds to prove that they are the fastest one with no life」

「horrorSCOPES $\|$ Bad jokes that are loosely related to a major， except when they＇re not．Apparently people enjoy these．」

## 「TLDR』〇Oh look，meta in my article．How originat．」

「Well，all the other articles are short enough that you should feel bad for skipping them．I＇ll skip them beeatse it makes my feet like a big man．Plus，most people come here for profQUOTES anyways．If you want a TLDR for them，they＇re the same as last year they are extremely funny and always a great experience every issue．So now that you know what the articles you most likely skipped are about，you might want to read them．Or do what I do，read the title and just make blind assumptions on them．Honestly，who reads actual articles in mathNEWS？If you read any articles because of this，then I can finally win．Alas，I＇m not one to win，but do not worry，I＇m a good loser．Till next time」

〔Good loser Kumagawa」


# gridCOMMENTS 

Dandy Lions

Since the solutions are being published elsewhere in this issue, I decided to craft some cunning clues. I hope this crossword finds its way onto your desks at home, where it may tempt and taunt you while you study, and test and try you while you procrastinate. I thank my housemate Graeme for the title and my friend Sam for some clues.

Henry's submission featured "RECLASP" instead of "RECLAMP", which changed "EME" (the suffix in the linguistic units "phoneme", "grapheme", "morpheme") to "ESE" (the suffix in the demonyms (i.e. names of a locality's "units", its residents) "Chinese", "Maltese", "Burmese" (although these are typically adjectives, or refer to the entirety)). Either way, Henry's being the only submission whatsoever nets him a victory by default, with the impressive answer "hymn" (and the onomatopoeic answers "pfft" and "ugh") to last issue's gridQUESTION "what is the shortest English word you can think of which yields no legal English words upon changing any one letter?" Congratulations, Henry! You may pick up your prize at MathSoc or at the mathNEWS office (MC 3030).

When y'all complete as much of the gridWORD as you can, get back to studying! There is no gridQUESTION this week, for this is the last issue of the term. See you when the weather's warmer!

Cheers, unit

PS. Whether 16A should've read "Needles's" gave me great grief, and after discovering that two major style guides conflict on the issue (cf. http://www.ncsu.edu/ncsu/grammar/ Apostro3.html), moment and I polled the mathNEWS writ-ers-the extra " $s$ " garnered but two votes.


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* The "one year" indicates 3 terms that are not necessarily consecutive. That is, if you're at U(W) for the Fall 2013 term and off on a work term for the Winter ' 01 and Fall ' 01 terms, then you could get a year subscription for Winter 2001, Fall 2001 and Spring 2002. (Since you can pick up the Spring 2001 and Winter 2002 issues in person!)

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