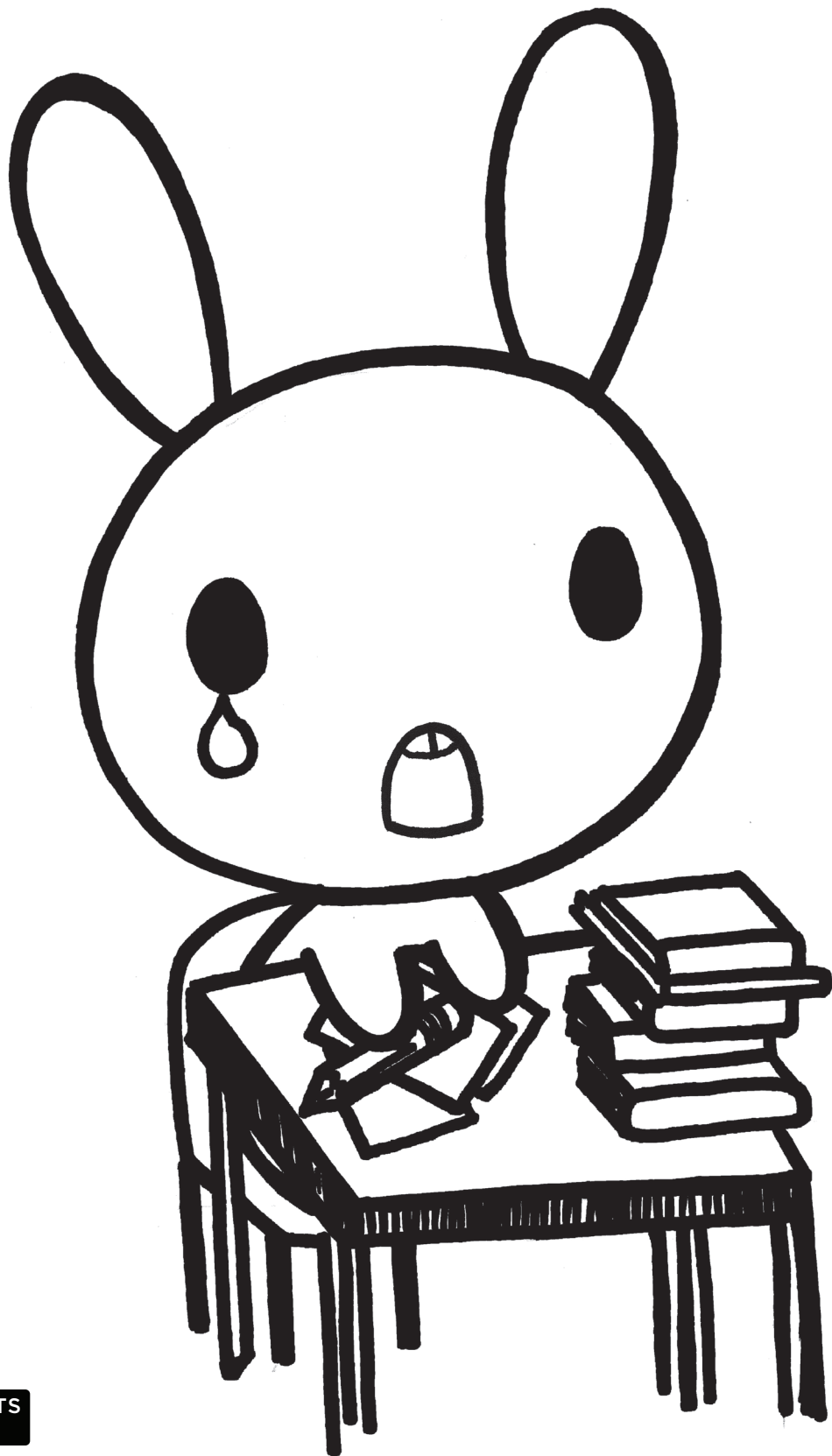


math

NEWS

Volume 130, Issue 4

Friday, February 26th, 2016



lookAHEAD

mathNEWS

February 26	Issue 4 blooms
March 7	Production Night 4 gets diabetes
March 11	Issue 5 gets killed by frost

MathSoc

February 26	MathSoc Logo Contest submissions close
February 27	MathSoc Logo Contest voting opens

University

Feb 22– Apr 23	The rest of fucking term goddammit WHY
February 29	Deadline to change online exam locations
March 18	WD Drop Period Ends

Miscellaneous

February 27	International Polar Bear Day
February 28	National Science Day
February 29	Leap Day
Mar 1–Feb 24	Celebi distribution online

Article of the Issue

This issue's article of the issue is "IBM Watson Leading New Game Development" written by WatSon. Come get your prize at MC 3030!

The Editors



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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* will eventually be available electronically via the World Wide Web at <http://www.mathNEWS.uwaterloo.ca/>. [Sometimes I look at myself naked in the mirror, and go "Yeah, that's right." —SketchED] Any normal person would have interpreted that as a request for change! What do you think, everyone? ...Anyone? Send your correspondence to: *mathNEWS*, MC3030, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1 or to mathNEWS@gmail.com on the Internet. This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works 2.5 Canada License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/2.5/ca/> or send a letter to Creative Commons, 559 Nathan Abbott Way, Stanford, California 94305, USA. Terms may be renegotiated by contacting the editor(s).

Amy Li (is a better proofreader than G), Elizabeth Liu (AFK), Katherine Tu (AFK), Jose-Miguel Velasco (Has Disconnected)

mastHEAD

Reading Week has come and gone, and as such we return to the daily grind in which we work toward the fantastic payoff allegedly awaiting us at our eventual convocations. Until then, there is *mathNEWS*, the lone quantum of solace we can fit between our caffeine-fuelled all-nighters, trains-induced panic, and combinatorics-based hallucinations.

On the bright side (literally), spring is just one short month away, and with any luck, the weather will only get warmer from here on out! So hey, that's fun to look forward to!

(Just watch, by the time this gets published on Friday, I'll be eating my words, and we'll be under another blanket of snow.)

This week's *mastHEAD*, for reasons unknown, asks our *mathNEWS* writers: "What is inside your dongle?"

Yeah, we don't know either.

proofraed ("Dongers! @_@"); Theodore Bear ("All my important assignments"); Zethar ("Oh, just [REDACTED]"); G-Unit ("The bodies"); Ǝ-bird ("The future of America"); ƎThu ("My youth"); Shay Blair ("Blackmail on all the political leaders"); Dusk Eagle ("A list of better 'mastHEAD' questions"); 2manydegrees ("peanut butter"); Beyond Meta ("A very confused gender identity"); Diminutive Rex ("Explicit Sonic the Hedgehog fanfiction"); Element ("How to Make America Great for Dummies"); $s, t \in \{2K, K \in \mathbb{Z}\}$, 144 ("D&D books!"); Pizza Freeloader Kid ("Uhh... gonna say wire."); Depressimist ("Like everything of mine, you will only find the frigid chill of emptiness and disappointment"); aPlayerofGames ("Pizza"); Soviet Canadian ("Launch Codes"); Scythe Marshall ("Wires and current, just like everyone else?")

Pizza Freeloader Kid



WatSFic Sez

The Waterloo Science Fiction and Fantasy club has some cool, interesting, okay events coming up!

Our annual Dungeons and Dragons tournament is April 2nd. It is \$5 per person, or \$20 for a team of five that has contacted WatSFic in advance. Do you like dungeons? Do you like pretending to be a magic user in a world where nobody showers? Do you like having your name carved on a cool trophy? I do. I like those things. Join the Facebook event so you can be like me.

Our short story contest deadline is March 18th at midnight. Only one story per entrant and it must be under 7500 words. Prizes include eternal glory, the respect of your peers, and possibly something tangible (to be determined). If you have any more questions (hah, as if), email the judges at watsficwritingcontest@gmail.com.

Heather Stonehouse
WatSFic Secretary

VPA Sez

Winter is the term for the annual MathSoc Instructor of the Year award, so please submit nominations for instructors who you really loved and think deserve some recognition for a great job teaching. Submissions should go to vpa@mathsoc.uwaterloo.ca, and include a brief description of the instructor's teaching style and why you think they deserve the award.

There may also be fairly big news brewing in CS: there is currently a motion, which has passed SCS council and will be at the Math faculty committees next, trying to change CS so that transferring in is on a case-by-case (limited) basis. I have heard several very different descriptions of what this might imply, from no plans of restricting enrollment at the moment (but simply adding it as a safeguard), to potentially drastically limiting enrollment. Charlie Clarke, the Director of Undergraduate Studies, has refused to say anything specific about what they plan to do, so it seems like nobody really knows what this will mean at the moment. Assuming it passes the remaining committees, it would not go into effect any earlier than 2017. But, if this passes the "accept an alternate offer to Math and try to transfer into CS in 2A", advice may cease to be as good as it is currently, depending on how the CS advisors choose to use this.

Sean
MathSoc VPA

***mathNEWS* Sez:
"Write More Sezzes"**

How to Count

Grammar Edition!

After being a math student for so long, I came to a realization that it is hard to count. In fact, sometimes things are completely uncountable! Today, we will examine a *mathNEWS* article from the previous issue to determine if we can actually count. Specifically, to see if the grammar errors in the article are countable or not.

First we will take an algorithmic approach. If you have a way to improve my shitty algorithm, please send it in! Since an article usually consists of finite words, we can make the assumption that there are finite possible errors. A single word can be misspelled, which we can count as one error. A sentence consists of these single words. So a sentence can have a maximum of x spelling errors, where x is the number of words. Now, a sentence is more than just words. If the sentence makes no sense, then that's an error. Punctuation is also a possible source of error between words. Missing words are another possibility. The different types of errors sentence can consist of are: spelling errors, punctuation errors, meaning errors, missing words, unnecessary words, incorrectly ordered words, repetition, and possibly repetition. If I wanted to be rigorous, which I won't because I'm lazy, we could probably prove there are a finite number of errors. Most errors can be covered under the "sentence makes no sense" category. A paragraph consists of sentences, and an article consists of paragraphs. By doing some weird induction or something, we could probably rigorously show that an article can only have finite errors, which is countable.

Now let's do an example using last issue's article: "Imprint Publishes Unbiased Article on Opt-in WPIRG Debacle." Rereading it multiple times with multiple other proofreaders (honestly only one other person), we came to the following conclusions. The first sentence has six errors, specifically all in the direct quote from Imprint: putting periods after single words is an error, and not having a period at the end of a phrase or sentence is also an error. So far, we've found six errors there. Since we need more errors, we will force two, in the third paragraph the sentence: "However, news reports of the same calibre as the article in question could improve its numbers." Caliber is spelled incorrectly here and it's possible to put the word "more" before "news" to make the sentence slightly more coherent. There we go, two more errors.

Now, if I do the math correctly, that should be in total, for this article, around $2+6 = \text{infinity}$. Uncountable! I think my algorithm broke somewhere. If you also got uncountable, don't worry, that means you are as dumb as me.

A Mad Counter

Editor's Note: This article is great for error-finding practice, we didn't bother fixing it.

How Do Overrides Work?

First, some basics...

Every department of the faculty, and each faculty of the University, handles overrides differently. In CS, SAS (STAT and ACTSC), and much of MATH, overrides are handled by the academic advisors. In other departments, it is by the instructor. Usually, a good way to find out about overrides is to visit a Faculty's Undergraduate Office. In Math, your undergraduate office (MUO) is in MC4022. The MUO is staffed by an extremely knowledgeable team of individuals who have your best interests at heart. They are an amazing team that has always gone above and beyond for the students of this faculty.

The Basic Process

1. Decide if you need an override. The reasons you may need one are listed below.
2. Visit the MUO to pick up an override form. Or print one from <https://uwaterloo.ca/math/current-undergraduates/forms>
3. Ask the Undergraduate Office for the course (i.e. for ECON you should ask the Arts Undergraduate Office) who should sign the form, and take it to that person for signing.
4. Return the form to the MUO or the Registrar's Office (RO) for processing.

Time Conflicts

You can override some time conflicts between courses if they do not interfere with the lecture time or with another mandatory part of the course. However, if your time conflict is with a mandatory part of the course, do not expect to be overridden into the course.

Requisites

If you do not have the prerequisites, you should not expect to be overridden. Course requisites are approved by Senate and overrides of requisites would normally only be approved through a Policy 70 petition to the Standings and Promotions Committee. If you do manage to enroll in a course despite your lack of requisites, say because your instructor is overly generous, and fail, you have no grounds to appeal.

Class Full

If a course is full you should kindly inquire as to whether or not there exists a waitlist. In SAS, we believe that if you failed

to course select for a term and thus could not find a seat, it is your problem, not ours. Class limits are usually set close to the maximum number of seats allowed in the classroom. It is against the fire code in most cases for us to add more students to the classroom than there are seats in the room. Hence, for legal reasons you likely will not get into a full course. Basically, if you want a class, course select.

Reserves

Reserves are implemented when a department wants to save seats for certain students (i.e. ECON 101 is saving 100 seats for Math Majors). If you do not meet the reserve description, you will likely have to wait until the specified students (for whom the seats have been reserved) have had the opportunity to take the seats they need.

Department Consent

Department consent is applied for a myriad of reasons. It's best to simply ask the instructor/advisor whether or not this can be overridden.

Advanced Courses

It should go without saying that advanced courses are not for everyone. You should listen to your instructor if they tell you not to take their advanced course. Again, you have no grounds to appeal should you fail an advanced course, because of an override.

6 Courses a Term

If your CAV, or cumulative average, is 80% or more then you can enroll in 6 courses. If you do not meet this bar, talk to an advisor. We may tell you to petition. The Standings and Promotions Committee will then decide whether or not to let you into 6 courses.

Who Processes the Forms

The MUO and RO process override forms. If either department does not process your form, then there is no point going to the other department – please abide by their decision. Note that often students complete the forms incorrectly (i.e. unannounced time conflicts or reserves) and this is the reason why the form is denied.

Riley Metzger
SAS Advisor, Director of Educational Analytics

New GoFundMe for Imprint

A charitable organization has kindly set up a GoFundMe for Imprint in order for them to buy a spellchecker. This endeavor strives to solve the issue of misspelled words easily caught by spellcheckers. The organization in question has promised that an affordable option will be selected.

Cola Baby

Gripping your wet curves
Craving your sweet explosion
Coke, I need you now

HeForShe – Let’s Talk (Part 1)

Welcome to a new running column in *mathNEWS* on the HeForShe campaign and how it relates to the goings on in the Math Faculty. The idea is to provide a continuous open forum for discussing issues of gender equity as they affect students of the Math Faculty.

What questions do you have about the HeForShe campaign?

What questions or opinions do you have about gender equity in the Math Faculty?

Are there inequities at UW that you would like to see discussed / addressed?

Do you have ideas about how to make CS and Math at Waterloo more welcoming to all students?

In the rest of today’s column, we provide a short overview of what the HeForShe campaign is about. In the next issue, we will provide a summary of the outcomes of the first Math Faculty HeForShe Working Group meeting. After that, the topics of subsequent issues will depend on your submissions. What do you want to talk about?

What is HeForShe?

HeForShe is a United Nations’ solidarity movement to work towards gender equity.

The movement is called “HeForShe” to emphasize that the movement is not about women fighting for women’s rights — men and boys need to be part of the solution in making gender equity a reality. It also acknowledges that men benefit from this equality.

What is Impact 10x10x10?

This is a five-year pilot effort within the HeForShe campaign to attempt to improve gender equity through “top-down change”. Ten heads of government, ten captains of industry, and ten

universities (hence the name) have agreed to serve as public champions of gender equity, and each has made concrete pledges to improve equity within their institution. The University of Waterloo is part of this pilot program, and we have pledged to:

- Improve representation of female students in science, technology, engineering, and math (STEM) programs
- Improve representation of female faculty across campus
- Improve representation of women among senior academic and administrative positions across campus

What is the Math Faculty HeForShe Working Group?

The working group is made up of students, faculty, staff, and administrators in the Math Faculty who are interested in learning more about how they can improve gender equity (and the student environment in general) in the Faculty. You will learn more about this group in the next issue.

The topics of future columns will depend on your submissions. What do you want to talk about? Send your questions, comments, ideas, etc. to mathheforshe@uwaterloo.ca. Anonymous submissions are welcome.

To join the Math Faculty HeForShe Working Group:

<https://lists.uwaterloo.ca/mailman/listinfo/math-equity-wg>

Jo Atlee,
Computer Science, Math Faculty HeForShe Advocate

Francis Poulin,
Applied Mathematics, HeForShe Advocate

Oh How Olive You

Oh how olive you,
Your hot dough,
has the perfect chew,
Baby, give me some mo’
I saw your crust rise,
under your meaty sausage,
Your tomatoes, sundried,
held my heart hostage
Marinara drizzle,
lost in your warm sauce,
Watching you sizzle,
I’m at a loss,
I’d hate to be cheesy,
But I love when you’re greasy. 😊

Coke

HvZ Sez

Humans vs. Zombies is back, and signups are happening next week! Once again, the week long game of man hunt is returning to campus. If you have ever wanted to participate in a zombie apocalypse, if you have ever wanted to sample delicious brains, or even if you just want an excuse to run around campus with NERF blasters, we welcome you with open arms. Creepy, rotting, undead arms.

To signup, come on down to:

SLC, Vendors Alley from 9:00 to 3:00, Monday – Wednesday.
AL from 10:00 to 5:00, Thursday – Friday.
MC, Third Floor from 10:00 to 3:00, Monday – Friday.

If you want more information, you can go to our Facebook group: UWaterloo Humans vs Zombies.

The Necromancer

Roflmao!

And Other Ways to Indicate Amusement in Text-Based Communications

Everyone, at this point, knows the basics. “Ha” or “hah” or “heh” can be strung together over and over to get, for example, “hahahahahah”; the longer the string, the more amusement indicated. “LOL”, which used to stand for “Laughing Out Loud” or similar, is no longer capitalized unless you fully intend on yelling it; usually it is just written as “lol” now. Other acronyms, in lower case, include “rofl” (Rolling On Floor Laughing), “lmao” (Laughing My Ass Off), and the mashup thereof given in the title, “roflmao”. All of these may be repeated or strung together over and over, for emphasis. These are good for quickly indicating some level of amusement in response to a funny link, photo, gif, comment, etc. They are also somewhat generic and cookie-cutter; using them is not a very in-depth or personal response, unless you and your conversation partner have history with those responses. (OR, you and your conversation partner have both played Final Fantasy Tactics, in which case “rofel” is a fabulous pun.)

The next ‘step up’, at least in amount of visual images, is use of emoticons or similar. (“:P”), which often transforms your message. Sending a face sticking a tongue out is sometimes used by people making jokes, but also by people finding snarky humour in a comment, or by people acknowledging some form of gentle teasing. Other visual images include things like GIFs or stickers in Facebook Messenger, and silly emojis or flairs or whatever in other chat interfaces. Again, these might be appropriate, and perhaps quick if you know where to look for them, but they’re still, to an extent, a canned responses, unless you put effort into finding exactly the right image to suit your needs.

From images and words, we may move on to actions.¹ The classic one is “*facepalm*”, not only used for strict disbelief but also in a “I can’t believe that, wow, you’re ridiculous and I can’t stop laughing” sense. Sometimes this job is also performed by “smh”, short for “Shake My Head”, or “*eye-roll*”. Other actions include things from popular culture, such as “*falls off chair*”, or the ever-popular and ever-painful “*snorts and gets beverage of choice up nose*”, as well as “*groooooooooooooooooan*”. These are less canned, mostly, because it’s a description of an action, and humans, for some reason, generally have a tremendous ability to visualize actions and people doing them. The more morbid of us occasionally use “slayed” or “dying”, indicating death by laughter. Which is perhaps the more twisted due to this being a reference, both oblique yet tremendously obvious, to The Killing Joke.²

Related to that are descriptions of types of laughter. Above, we talked about “hah” and “heh”, which are versatile, but one might also try using more specific language. “Tee hee” may be used to imitate a traditionally feminine sort of high-brow laugh, perhaps used in a more sarcastic sense, or “that was a good prod and you know it”. “Har” or “hardy-har-har” fills the role of a purely sarcastic laugh, usually accompanied by “very funny”, and “snicker” can be good for a cheap laugh. There are others, depending on how you laugh, that may be useful for you.

Perhaps the most challenging display of amusement to catch is the deadpanned response. Sarcasm, because its very nature is the situation of saying one thing and meaning the opposite, is the hardest speech pattern to identify in text-based communication. Couple this with humour, also a challenging thing to convey in text, and we obtain a recipe for ruined relationships, fragmented friendships, and/or good-old-fashioned miscommunication. Hence, when exclaiming amusement in text, and when reading those exclamations, be aware of the context of the statements and the people on either end of the conversation. They can’t see you roll your eyes, and you can’t see them snickering at what you said. As an old friend used to say, constant vigilance!

Given a wide repertoire of reactions to humorous situations, one might ask: what happens when we break that bone in our arm? The answer is clear: laugh, and laugh lots, until you cry, and then perhaps laugh a bit more unless it hurts to laugh. In that case, maybe you should restrict to text-based communications, where you can lololololol your way along.

You might wish to avoid rolling on the floor while playing the Chairman’s Game, however; there could be a rule prohibiting that.

Scythe Marshall

¹ Dream Theater reference in the first clause, silly wordplay in the second. Perhaps one of the greatest sentences I’ve ever written.

² Pretty sure the Joker needs to be murdered immediately. Also Alan Moore and the editors who decided that Barbara Gordon was better off crippled, solely for the Joker’s character development.

*dis*CONNECTION

I thought we had something when I first laid eyes on you. Then you closed your blinds. Canadian Tire doesn’t accept returns for a used ladder.

Climbing into your heart

**Follow us on Facebook
(*mathNEWS*), Twitter
(*mathNEWS*)
or in person (MC 3030)!**

How to Read the *mathNEWS*

It has come to the editors' attention that people do not know how to read *mathNEWS*. For the unaware, other than *prof-QUOTES*, the *gridWORD*, and sometimes the *horrorSCOPES*, there are actual "articles" in *mathNEWS*. Very rarely are they news — most are opinion or comedic pieces (or occasionally, the odd piece of satire)! The goal of this article is to help people realize the difference between an actual news article, and one of the aforementioned natures. We know it can be hard to figure out sometimes, but hopefully by the end of this you will be a master of reading and comprehension!

First things first, does the article's title have a contradiction in it? For example, the presence of the words "Imprint" and "Unbiased" in an article's title probably mean that it is a joke article. In fact, just the word "Imprint" (or possibly even "the") should be enough to clue you in — after all, we all know that only *mathNEWS* can be unbiased in this University! But of course, headlines only tell us part of the story; we need to go deeper into the article to definitively identify the theme.

Usually, the first paragraph of the article contains a clue as to what the article is about. In good writing, this is normally in the first sentence, but this is *mathNEWS*. Some satirical articles don't reveal themselves as satire until much later in the article — which is good satire — but sometimes people don't read far enough into the article to learn this. Of course, it's fun to make judgments about small things instead of the full story. I personally like to assume things about people based on their smell! Taking an (entirely random) article as an example, the last sentence of the first paragraph ends with "...receives its information from only the most infallible of sources for its news, like screenshots of Reddit or Facebook." If, at this point, you think the article is serious, there is no way to teach you that this article is designed to be satirical or a joke, except for maybe a label on the article to tell you what it is.

If the article comments on a previous article, it might be a response to or a parody of the article. If the article makes reasonable things seem evil, then it's probably parody. Another hint is if the article uses footnotes without actual references in the footnotes, then it's probably a joke.

If you read the entire article and are still unsure of what type it is, there is a small trick to *mathNEWS*. Most issues are sorted and attempt to have actual news up front, satire next, then opinion pieces near the end. If the articles before and after this article are actual news, chances are the article you're reading is actual news. This assumes you can realize what is actual news though, which is another problem.

If this article isn't able to help you, then maybe you just lack the reading comprehension skills required for the scholarly writing that is *mathNEWS*. At this point only the most advanced of minds, far superior to your own, can read *mathNEWS* articles. We recommend asking for assistance from a famous scholar, your professor, or a pet. They can explain the article to you instead.

Figure A: The scholarly reader of the *mathNEWS*



Quality of *mathNEWS*

The quality of *mathNEWS* is not perfect. Many people (I can count them with my fingers) have told me (indirectly) that *mathNEWS* no longer has any quality articles. For the most part, they are complaining that it has become a low quality blog of sorts with no real news, articles, or even funny/satirical content.

As an editor, I only wish to please our readers in the best way possible. To explain a bit, *mathNEWS* is a purely volunteer-based publication. There are no paid staff or writers, including the editors. There is no true consistent set of writers, as they can leave whenever they want and write whenever they want. Generally speaking, we accept everything and publish almost anything. Our main goal is to give something back to the readers and writers, by printing their articles and providing *mathNEWS* to our readership.

The only ways to improve *mathNEWS* are for our writers to improve and to acquire more quality writers. It seems that many people understand what makes a bad article, and we wish to have you write for *mathNEWS*! By increasing the amount of quality writers, we hope our writers will all mutually benefit, increasing the quality of *mathNEWS* for years to come. The benefits of writing are being published, getting free food during production nights, and qualifying for the end of term party that *mathNEWS* holds. So not only are you helping *mathNEWS* get better, you get rewarded for it! Additionally, there is no risk for you. Obviously, your writing cannot be any worse than the current writing, and therefore you can only help us improve! (Or keep us stagnant in our current state.) We are also willing and ready to help all writers improve if they ask for help, and are looking for more proofreaders to help fix errors and such. We are not perfect and the more help we get, the better we can be.

mathNEWS wants you to make it better! Because, apparently, anyone can do better and we want anyone.

Tim's Law

In Southwestern Ontario, the weather in February is like riding a roller coaster designed by a drug addict while blindfolded: inconsistent, and unpredictable. This can cause some confusion if you judge what season it is based on the weather. Is it still Winter? Is it finally Spring? However, there is one thing we know for sure: February is Roll Up The Rim (RUTR) season at Tim Hortons. The season Canadians love even more than hockey season. Every February, we get a thrill whenever we finish our hot drink, and start to roll up the edge of the cup. Then, we inevitably have our hopes crushed moments later when we see that all-too-familiar message: "Please Play Again". We know we're probably not going to win any of the big valuable prizes. We know that winning a coffee or donut is only going to save us a couple dollars, and maybe not even that much since we probably spent way more on coffee recently than we otherwise would have. But we don't care, because we're drawn to the thrill of the possibility that we might win something.

Supposedly, the probability of winning a food/drink prize is approximately 1 in 6. This means that, in theory, you should win a prize on approximately one Roll Up The Rim cup for every six that you get (Wow, it's STAT 230 in real life!). However, as of yesterday, I had had at least 10 hot chocolates from RUTR cups, and I had not won a prize on any of them. I've had friends who have been in the same situation. But how? Why is probability failing us?!? The answer lies in a simple concept known as Tim's Law. Tim's Law states that "No Roll Up The Rim participant will ever win on as many cups as they believe they should."

I will now prove Tim's Law (my logic is totally legit, trust me). Given the 1/6 probability of having a winning cup, we can assume that each person believes that they should win on at least one out of every six RUTR cups they buy. Thus, if you win less than one sixth of the time, Tim's Law clearly applies.

How to Find Your Friend's House

1. Try to remember their address.
2. Fail to do so.
3. Get to their street.
4. Ensure it is dark outside and you are wearing dark clothing — hoods and/or hats are preferred.
5. Wander up and down, staring intently at each individual house. Linger in front of each house.
6. Pick a house you think looks like theirs.
7. Knock on the door.
8. When confronted by an old lady, apologize for getting the wrong house. Endure her angry lecture.
9. Examine each house again. Linger for longer.
10. Realize it is garbage day. Do a visual check of garbage.
11. Find the house with garbage from Math CnD. (Note: customize what you are looking for based on who you are looking for)
12. Lurk outside the dark house wondering if you should knock.
13. Notice someone coming out of the house going to the backyard. Ask them on their way back in if "Jane Doe" lives there.
14. Repeat steps 5-13 as necessary.

Yours in lurking, Shay Blair

Of course, some people win more than one sixth of the time. Let us refer to these people as "winners". When winners realize that they've won more than the statistics predict, or that they've won multiple times in a row, they want to maintain their winning streak. They begin to think of themselves as some kind of magical being, to whom the concept of losing on a RUTR cup does not apply. Thus, they believe that they should continue to win on every cup they buy. But most of them eventually lose, so Tim's Law applies to them as well. The final possible case is the subset of winners who do continue to win on every cup they buy for the rest of the Roll Up The Rim season. Since they have a 100% success rate, they believe their winning streak should continue indefinitely. But, RUTR cups eventually sell out, thus causing these winners to win fewer times than they believe that they should. Therefore, Tim's Law applies in every case. QED.

Note that, although they are related, Tim's Law is not to be confused with Murphy's Law, the law stating that anything that can go wrong will go wrong. For a demonstration of Murphy's Law, consider that I was struggling this morning to think of an article topic, as I have been lacking in inspiration for articles lately. After deciding to write about Tim's Law — and how I haven't won on a RUTR cup this season — I bought another hot chocolate, and finally rolled up the rim to see that it was a winner. After desperately hoping for a winning cup and having those hopes crushed for weeks, I finally won, albeit making a plan that involved being able to say I hadn't won yet. That is Murphy's Law in action. Fortunately, this also shows us that there is hope for anyone else who has not yet had a winning cup this season. Keep rolling (NOT A DRUG REFERENCE) and good luck!

TheUndecided

UW Juggling Festival + Show This Weekend

UW Juggling Festival and Show! Join us Friday (Feb 26) 7 PM-late and Saturday-Sunday 10 AM – 5 PM in the SLC for juggling workshops, games, competitions and more. Beginners and experts welcome. For more information, visit our website at hyperurl.co/uwjuggling2016, or e-mail us at uwjugglingclub@uwaterloo.ca. It's FREE admission! There will also be a gala show Saturday (Feb 27) 7:30 PM – 9:00 PM in Hagey Hall, \$15 adult tickets, \$7 for children under 13.

Thank you!

Gabriel Gauthier-Shalom
UW Juggling Club President

**Submit your articles & *prof*QUOTES
to mathNEWS@gmail.com
or the **BLACK BOX** near the MC
Comfy Lounge.**

The Cost of Forced Diversity

This is a sensitive topic, but an important one, which I believe we must be able to discuss openly and objectively. The views and opinions here are solely my own and do not reflect those of my employer, relatives, friends, pets or any other carbon based lifeforms that associate with me.

Diversity is all the rage in silicon valley these days. Tech companies are under enormous social pressure to improve the diversity of their work force which, at this moment, consists primarily of Caucasian, Asian, and Indian men. Social activists point this out and ask why minority groups such as blacks, Hispanics, and women are so underrepresented in the work force. As a result, companies are spending conscious efforts to improve the “diversity” of their workforce. However, this forced push towards diversity may be doing more harm than good.

The current approach for increasing diversity seems to be this: when picking between candidates, give preference to the more diverse candidates. Hire them more often even though they may be less qualified. This is bullshit.

In the ideal world, hiring decisions should be based on merit, skill, and performance alone. Other factors such as race, gender, sexual orientation, and favourite colour should have no impact whatsoever. Though this is the ideal, it is not the case presently as subconscious biases do exist. One study showed that simply having a black sounding name, such as Jamal, on a resume will lower the chances of getting interviews.^[1] Also, companies that stress this fairness principal usually fail to follow it.^[2]

However, introducing a strong conscious bias in the other direction is not the solution. Hiring someone unqualified for the sake of diversity has costs.

The cost for employees: In general, people want to work with smart, competent peers with good work ethics. One of the most important thing to keep employees happy is to make sure everyone gets along. Introducing poor workers into an employee pool will decrease their satisfaction and may result in increased churn. In addition, a company may be afraid to dismiss an underperforming “diverse” candidate for the fear of public backlash.

FEELINGS

Angry Russian given seventy eight words for discuss feelings.

I no have feelings.

I have discover anger is feeling from dictionary and not english translation of Russian name Yevgenia. I will revenge on you for lies Dr. Smithsonian, immigration lawyer.

Is love for vodka feeling? American friend say no but he kapitalist pig. Maybe only kapitalist have feelings. Or maybe only pig. Mama always say bacon is smiles of the pig.

Angry Russian is use all words available.

The cost for the company as a whole: At the end of the day, we live in a capitalist society and companies are not charities. They operate with the goal of profit, and an unqualified employee will have a negative impact on the company’s overall productivity.

The cost for other employees of the same minority group: Ashley, who is hardworking and competent, sees Madison get the same position as her despite being unqualified, and begins to wonder whether she was hired based on her skill and merit or because she improves diversity.

The better alternative to introducing conscious bias is removing discrimination, if any, and make hiring decision based on competency alone. This can be accomplished as follows:

- Anonymize name, address, and other personal information when screening resumes, and only reveal the information when the candidate is selected and needs to be contacted.
- Conduct more “blind” interviews. The extreme case would be giving the candidate a voice changer, placing interviewer/interviewee in different rooms, and showing the interviewer only a redacted version of the resume. This idea doesn’t seem to be novel, and a cursory google search shows many articles^[3] related to this.

In addition, the workforce is a reflection of the available labor pool, and minorities are in the minority because well... they’re minorities. The other side of the solution is to improve educational opportunities and give everyone the same chance when it comes to schooling, though that is another problem altogether.

At the end of the day, even with all these changes, there will still be underrepresented groups in every field, and we should be okay with that. We should be pursuing fair hiring practices and pick the best people for the job, not forcing diversity for the sake of having it.

[1] <http://www.nber.org/papers/w9873.pdf>

[2] <http://www.theatlantic.com/business/archive/2015/12/meritocracy/418074/>

[3] <http://www.fastcompany.com/3042618/strong-female-lead/can-blind-interviews-finally-solve-techs-diversity-hiring-problem>

Dating Advice from the Single Guy

There is no better person to give dating advice than someone who is single.

This issues advice: Having a hard time maintaining a relationship beyond a few weeks? Take Realtime with your partner! This way you’ll be together for at least 3 months and bond over the struggle awaiting you all. You can only come out with a stronger bond after the course! Or bitter hate for the idea.

The Single Guy

IBM Watson Leading New Game Development

IBM Watson, the AI most famous for its domination in Jeopardy, has decided IBM's next great endeavor. In a recent press release, IBM Japan announced *Sword Art Online: The Beginning*, an MMORPG set in the world of the anime *Sword Art Online*, where players are trapped inside of an MMORPG and forced to play, or die in real life. Exactly like the anime, IBM's game is intended to be controlled by a helmet that reads brain impulses and body motions, allowing for an unprecedented immersive experience.

A sentient AI producing a video game about humans being trapped in a video game by a human AI is exactly the direction Japan's video game industry was meant to follow. There have been at least a dozen anime produced and hundreds of manga with this plot, so the market is primed and ready. The American influence on Japanese culture also means that this game will be localized for North American audiences, the primary consumers of anime.

The decision comes as no surprise to those who have studied Watson's development over the years. Watson learns by analyzing unstructured data, with human guidance acting as a sort of seed data, indicating what to look for or keywords. The latest initiative has been entertainment, where Watson began analyzing Netflix in order to identify profitable business initiatives. IBM was taken to court for ordering 34 tons of crystal meth cooking supplies last August until it was discovered that Watson was responsible and the charges were dropped. It had done this to test market tolerances, as part of an undisclosed higher learning initiative. The *Sword Art Online* announcement comes just after the second season was released on Netflix, proving that Watson has learned to binge watch.

What will Watson come up with next?

WatSon

Out of the Bag

Who really calls the shots in the big picture? The UN? The US? The UK? UAE? No, it is the fat-cats. And I am not talking about the bankers or the billionaires. No, we are all pawns in the grand scheme of *Felis Catus*. The common house cat.

Think about it. One of our big claims to fame as the supposed top of the food chain is that we have domesticated all sorts of animals. Including, supposedly, cats. But what exactly have we domesticated them to do? Tolerate our presence? Pester us when they are hungry? Usually pee where we want them to, sometimes? Meanwhile, they have got us feeding them, building shelter for them, grooming them, protecting them. We are basically their minions.

They have trained us, while fooling us into thinking we have trained them. We think we are all so smart, with our technology and innovation, while our feline overlords have just gone and delegated the tough jobs to us, leaving them free to lounge around napping in sunbeams and licking themselves all day.

Those Machiavellian furballs...

Yours,
s,t∈{2K,K∈Z}, 144

4 Reasons Why “N Things” Lists Should be Numbered

1. Helps to give a rough idea of how much time will be wasted used reading the article.
2. Numbers make referencing specific entries in the future less cumbersome.
3. Some entries are better than others and they obviously need to be ranked.
4. Everyone wants more counting as long as it doesn't go past 7.

2manydegrees

New Mandatory Course

The university administration has noticed that many students, especially CS students, lack essential skills necessary to survive their undergrad. Specifically: the practice of eating and sleeping regularly. The administration has noticed that thousands of dollars are lost in visits to health (and counselling) services due to these unhealthy habits. In order to remedy this issue a new course has been created to teach students how to take care of themselves.

In order to avoid conflict with other courses, the lectures are scheduled from midnight to 6am. The strange times for these lectures are explained by the fact that students are known for sleeping through their classes. The course has anti-attendance marks. Students are discouraged from attending the lectures.

The course also has daily Instagram assignments where students are encouraged to take pictures of their meals to show that they bothered to acquire sustenance that day. Bonus points are given to regular meals at about the same time every day.

The course also give students coupons to buy soylent in order to facilitate the task of eating food.

This new elective was met with much protest from students citing the fact that no one actually has these skills.

Beyond Meta

Who Reads Imprint?

The last issue of Imprint was published on February 10th. This article was written on February 22nd. On the third page of Imprint, there is an article titled ‘Is living with seniors next in affordable [sic] student housing?’

Now, one has to try typing that at least four times before Word will finally accept the misspelling, but that is beside the point. The *mathNEWS* writers noticed this error at our production night and then remembered that Imprint was temporarily rehomed just down the hall from us! Of course, we had to venture over to let our friends know of this mistake!

Rather suspiciously, no one had yet informed them of this error – despite the issue being out for almost two weeks. We are forced to conclude that the only people who read Imprint are the *mathNEWS* writers. However, this is still slightly more people than read *mathNEWS*, as not all of our writers bother reading our own publication.

You are probably not even reading this,
Diminutive Rex

How to Find Affordable Student Housing

At some point in your life as a UW student, you will have to hunt down a place to live. Before you rush into a rental agreement, it is important to decide what criteria are most important to you in your place of residence. There are many potentially important factors: distance from campus, size, the number of seniors it can fit, and most critical of all, affordability. This easy guide will educate you on the four most important things to check when determining a house’s affordability.

The first thing you should check is the number of walls of the house. Ideally you are looking for a good solid four walls, but if you are more flexible you could look at places with 8 ($4 * 2$) or 16 ($4 * 4$) walls.

Next, you should check the dining area. Make sure the table is square or rectangular – a circle or oval table just will not do.

Another important part of finding an affordable house is to check the windows. Just like the table, make sure they are rectangular. Circular is, of course, unacceptable but if you have a few triangular windows do not write off the location – you can just put up some rectangular curtains.

Finally, take a look in the bedroom. Is there enough room to put a solid four-sided bed or will you be forced to use a completely unaffordable hammock?

Remember to check these four critical things next time you move and you will be sure to find yourself some completely affordable student housing.

On Sarcasm

For those who did not get the memo.

Sarcasm. It is a wonderful construct in the English language, as well as the Anglophone cultural sphere with which the language is entwined. Its widespread and unabashed usage is fairly essential to English, and, after a series of comical misunderstandings which would not be out of place in a romantic comedy, it seems that there are people out there who have lived in this country for several years, and have yet to get the memo.

An academic definition of sarcasm might characterize it as derision that employs verbal irony (or some other rhetorical device), but it might be more useful to the common reader to realize that when sarcasm is used, the speaker (or writer, as the case may be) wishes to undermine the semantic meaning of the message to mock something or someone.

The tells of sarcasm are varied, ranging from intonation and delivery, to context (situational or social). When detecting sarcasm, one must consider the speaker’s motives and intended payoffs, in order to determine whether or not the speaker intends for the statement to be interpreted as a sarcastic remark. It would appear that in English discourse, the nuance of this parley falls into the chasm between what is said and what is meant, one which in other languages falls elsewhere.

American culture often likes to paint sarcasm as a passive-aggressive manner in which to subvert those that are in power, and this use is most prominent when teenagers are involved. For many who have grown up in the cultural sphere of the US, the teenage “rebellious phase” is about subverting the social construct placed upon them, and in order to do this without attracting long-term consequences in our genteel society, sarcasm is often used. This widespread, although somewhat subdued, use is still entrenched in today’s society, and as such, one must be on the lookout for sarcasm’s employ.

As one writer put it, sarcasm does not translate well into the written word, so one must be doubly observant when dealing with potential sarcasm on paper (or online, as the case may be). The cautious writer is advised to never use sarcasm when writing, but such niceties are not afforded in a more casual context.

For those who have never “gotten” sarcasm, please consider this the memo which you might have missed. Go forth and discern, and may your future be filled with less misunderstanding.

Zethar

**Submit your articles in the
BLACK BOX outside the
MC Comfy or email them to
mathNEWS@gmail.com! ... Pretty
please?**

profQUOTES

"I bet you weren't expecting to find out who rules the day today, but you have."

Carrington, SOC310

"Tentacles, eating up corporations. Or, at least, sucking their blood."

Carrington, SOC310

"I won't do the proof here. You're all smart people, you could all read it. It's called reading week."

Cook, CO 255

"It's a proof by Lovasz. We'll do the proof next time, it'll take a half hour but you won't even believe it's true at the end."

Cook, CO 255

"Sometimes I'll say hard things and I'll say it in a way that you'll be embarrassed to question it."

Cook, CO 255

"I am noticing that some of you are suffering from the sun."

Lushman, CS 146

"Once you die, you're dead."

Larson, CS 486/686

"You laugh, but you should never underestimate shiny reward stickers."

Larson, CS 486/686

"You need to listen to everything in class, even if I whisper it under my breath facing the blackboard."

Larson, CS 486/686

"People have studied those questions to death, and very early on I stopped caring."

Mosca, CO 481/CS 467/ PHYS 467

"It's amazing how quickly the end of this semester is approaching. It's approaching at a steady rate of one second per second"

Wagner, MATH 249

"To indicate the contradiction, I draw an arrow pointing to the ground, because my argument has just gone BCHCCHHH! Then I draw a QED symbol. Then I draw a smiley face, because this makes me happy."

Wagner, MATH 249



"Who will crush man's skull like sparrow's eggs between thighs?"

Zangief, WRECK101

The Search for the Ancient Stone Pt. 4

The following passages were directly transcribed from the journals of Theodore Bear.

Day 58

I don't like Switzerland. After the clues I found in Taiwan, I journeyed here to this country. Arriving in the middle of a civil war, I started investigating the abandoned chocolate factories and ski hills that littered the countryside. I've felt eyes on me, both figuratively and literally, from when I first stepped into that warzone. I have to admit, I was quite shocked when my guide's head exploded, covering me with his teeth, parts of his brain, and most importantly, his eyes. I never should have let him read Imprint.

Anyway, I've joined with the rebels for now. I'm not aligned with their cause, and frankly, I couldn't care less whether they win or lose. They wish for their country to... [Note: a portion of this paragraph was unable to deciphered, due to a bullet hole through the journal. We apologize for any inconvenience.] ...incest and bestiality. I plan on abandoning them as soon as I can. It's likely that I will be able to leave them behind after I search the Lindt Chocolate Factory, and discover the true secret behind their Christmas bunnies.

Something here seems wrong, though. I haven't felt this uneasy since the time I ordered pizza from the Dark Hegemony. I didn't receive my pizza then, and I'm guessing I won't end up getting any pizza now. I could go to Italy, but that would too hard, and regardless, my travels had already taken me there; if I went back, the Ancient Stone of Nioj and its secrets could be lost forever.

Day 60

Who knew that Lindt's deliciously creamy milk chocolate could hold so many secrets, so many calories? The truth can always be uncovered by journalists and adventurers such as I, and the unbiased, completely serious truth-tellers that make up the publication known as *mathNEWS*, whose stringent editors are envied by all, including those who work for Imprint. Anyway, the secret of Lindt chocolate is... [Note: The aforementioned bullet passed through this paragraph as well.] ...using a beehive in the washroom.

Using this information, I have managed to discover why I felt as though someone was watching me this entire time. As it turns out, someone was. I attempted to interrogate the man, only to have him disappear right in front of me. However, when he vanished into thin air, he gave me all the information I needed to learn his master's identity. He was one of the Ascended Knights, who, with the ability to time travel, live the future-past. In an instant, new memories filled my mind; memories of a new past, and a new future. I was then approached by astronaut from the year 228883393939394u4742758345yt8fi8fy84yfhfu85hrhvuth-tu7thtyur8ir8585758585858585858585858.alpha, who told me his incredibly engaging story of how he traveled through a black hole, propelling him into the future-past, allowing him to travel along his own timestream to this exact moment. I felt tears welling up inside — I had finally found a kindred soul. Then, suddenly, he burst into flames.

Day 64

Blast! In the busy streets of that one tiny town in Switzerland that everybody knows about, I ended up being caught in a three-way firefight between the rebels, the government, and the Ascended Knights. Ducking as I ran between buildings to dodge the bullets fired at me. I decided that, of all the places I've visited on my journey, this was the worst, and would not be getting a good review.

It turns out that the secrets I held in my mind, discovered in the days before, made the Ascended Knights all the more eager to kill me. It turns out that they plan to... [Note: Yet another paragraph lost to the bullet.] ...with bad Harry Potter/Teletub-bies erotica. I knew the Ascended Knights would not rest until I had bitten the dust.

The most annoying thing about this civil war is that it's been keeping me from writing my work report. Detailing all of my adventures in my search for the Ancient Stone while also trying to research is a bit difficult when your internet connection has been cut by someone blowing up your wireless router, even more so when your laptop has a bullet lodged in its screen. I decided to try and multitask during my incredible foot chase, which then turned into a car chase, followed a chase on horseback, then down a ski hill, and work on my report while my life was clearly in danger. I needed to get my rough draft in, you see, so I could get feedback.

After shooting three Knights with a machine gun, while flying through the air having just ski jumped off a mountain, laptop out, I managed one bar of internet connection, allowing me to submit my draft on Learn. I had never felt happier, until the remaining Knights chasing me crashed into a snowbank and exploded, though when I landed that sick jump, ending up in a warehouse filled with gold ingots I quickly claimed for myself, my joy turned to utter elation — until the gold turned out to be chocolate.

It was delicious.

Day 65

I hate the Swiss. I just found out that during my chase last night, somebody shot my journal. I didn't even have it on me; it was in my hotel room. Who walks into a hotel room, spots a journal, and decides to shoot it. Thankfully, the threat of the future-past is gone now, and I am safe once again. Nobody else will know how the civil war was wiped from existence by the denizens of the future-past. I have managed to recover ½ of the Jubilant Augur, the key to unlocking the shrine that now holds the Ancient Stone of Nioj. If I can acquire the other two quarters, I can recover the Ancient Stone and complete my task.

I've purchased my ticket to Vienna — it's time I reached the beginning of the end.

