

math

NEWS

Volume 117, Issue 4

Friday, November 4th, 2011



Saving the innocent from the brainless

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lookAHEAD**mathNEWS**

November 4	Issue #4 saves the beaver
November 14	Writers annoy even more people in the MC 2 nd floor lab (Production Night)
November 18	Issue #5 trolls everyone to oblivion

MathSoc

Tuesdays	Games Night in the Comfy at 6:30 pm
Thursdays	Special nights in the Comfy!
November 12	Charity Ball

CECS

November 7	Contious cycle starts
November 17	US work permit info session (TC 1112 sign up required)
Wednesday/Friday	Rankings close
Tuesday/Thursday	Rankings open

Misc

November 11	Remembrance Day
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**MathSoc General Meeting
Wednesday November 30th 2011
4pm in the Comfy Lounge
(MC 3001). All Math
Undergraduate Students have a
Vote**

**CALL FOR AGENDA ITEMS:
email
prez@mathsoc.uwaterloo.ca
with any items you would like to
see discussed by Tuesday
November 15th at 5:30pm**

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The editors chase for the Elder Scrolls: Arena(FuzzyED), Daggerfall (GroovyED), Morrowind(!ED), Oblivion (ScruffyED), Skyrim(CowED)

mastHEAD*More taste than Imprint*

So recently *mathNEWS* was mentioned in *Imprint*, where it was insinuated that the kind and hardworking volunteers at this wonderful paper did not have as much bite as those from our rival paper.

This is true, because we at *mathNEWS* do not bite willy-nilly. We fight the biter to the bitter death. We come armed with our wit, knowledge and humour. Failing those we come armed with Nerf guns and tube socks. At our production nights we can personally guarantee the safety of our writers against the attacks from zombies, werewolves, vampires, penguins, Marmoset, and CorruptED. Anything else would be a lie.

On a personal note, I have to apologize for the state of the issue, and for its very lean physique. The plague known as midterms struck once more, and all of our first-year writers were whisked away to deal with CS. I actually shed a few tears when I saw that we would be without them. But next production night I will be crying tears of joy, because the midterms will finally be over and we will be at our full force once again! Be prepared to see an extra svelte edition of *mathNEWS* on your newstand on November 18.

So while we wait for the next production night, we will continue to fight the bite of *Imprint*. We will keep the hordes away, and we will look good doing it. And this brings us to the *mastHEAD* question of the issue:

During a zombie apocalypse, what would your outfit be?

theSMURF ("A trench coat on top of a trench coat on top of a trench coat, with sunglasses"), Forked Process ("Speedo. And only a speedo"), Red Metal ("Tattered rags and rotting flesh"), Algowierd ("Absolutely nothing. Clothes only get in the way of fleeing, and hey, you never know what might happen"), waldo<3.LE-GASPca ("The scourge of the Leviathan... as well as red and white stripes"), MeaninglessQuips ("The masticated flesh of my victims..."), Element 118 ("Bullets. Lots of bullets"), tehBEDMAster ("My apocalypse thong"), Lich ("Invisibility cloak"), Zethar ("A sentinel of Habbakuk"), BlueStone ("A zombie from a previous zombie apocalypse"), MustardMap ("The flesh of the living...wait"), theDreamer ("Magic. I don't even know anymore"), CowED ("a leather browncoat"), GroovyED (Lumber jack outfit)

!ED
("My Zombie-be-gone (patent pending) vest")

Feds Sez

Thanks to everyone who came out to the Annual General Meeting this past Monday. Lots of bylaw changes were passed and the audited financial statements were presented and accepted.

Check out the minutes from the meeting online at feds.ca.

The next Students' Council meeting is coming up on Sunday, November 13th at 12:30 pm in the SLC Multipurpose Room, so, as always, we encourage you to come out and see what's happening!

If you have any questions, comments, or concerns about anything, feel free to contact us!

Saleem Khan, Andre Magalhaes, Jesse McGinnis,
Josh Shabtai & Alex Russell
Your Feds Math Councillors
mathcouncillors@gmail.com

Prez Sez

It's not the end of the world as you know it

Hey Mathies! Midterms are probably over and hopefully the marks are to your satisfaction. If they aren't, it's not the end of the world. Be sure to seek out help so you can do better by the time finals come around. Anyways, this is what I've been up to these past 2 weeks.

The Student Success Office recently held orientation feedback sessions with leaders from all faculties. There was a separate session for each faculty; the math one was held on the 19th. The meeting focused mainly on the structure of the week with respect to it being shortened. Other topics that were to be discussed such as FOC structure changes, were not brought up, which is concerning. Issues involving moving in of leaders because of co-op (and none leaders because of weekend convenience), attendance of the scheduled middle of term events because of people just going home for a long weekend and co-op students still having interviews, and others were discussed. The manner that they were looking for feedback was manipulative if done on purpose as it was very susceptible to bias. The decision on the shorting of the week will be made at the November senate meeting.

On a lighter note involving Orientation, applications are now available for FOC (Federation Orientation Committee) members. Basically, these are the people who are in charge of planning and running orientation week. To find out more visit <http://www.orientation.uwaterloo.ca/leaders.php>.

MathSoc will be holding our termly General Meeting on Wednesday November 30th at 4 pm in the Comfy (MC3001). What makes this meeting important is that all math undergraduate students have a vote. If you're wondering why you should show up, think about Pi Day, the tutorial center, MathSoc office staplers. MathSoc gets your money every term, so we need to make sure that you have a fair say in how it gets governed and ultimately spent. This is where you do that. If you would like to bring forward any items of business, feel free to email me by November 15th.

CnD renovation planning is coming along nicely. We decided to get wood laminate flooring because it will give a more completed look of the renovations and give a classier look. We will also be shifting the wall out until right before the balcony door and back to between the slushy machine and the inside closet.

To get more details on all of this, go to the mathsoc website and check out the exec blog at <http://mathsoc.uwaterloo.ca/Blog> or email me and I'll be happy to respond to any concerns or comments. My email is below.

Until next time.

Andre Gomes Magalhaes
President
prez@mathsoc.uwaterloo.ca

Due to midterms and Humans Vs. Zombies, Rainbow Mathies will not be appearing this week. It shall return in two weeks time, I promise!

(define this (not cool))

VPA Dances Interpretively

cat-daddies

This week I come to you with news of events, rather than boring committee nonsense. So without further ado, here's what's coming down the pipeline:

- **Resumé Critiques:** When? Thurs, Nov 9 @7-9PM. Where? MC 3rd Floor Comfy Lounge. What? Round 2 of Jobmine applications have started. MathSoc held a resumé critique night this past Wednesday and will be having another Thursday of next week. Drop by, and we'll help you turn your resumé around!
- **Mock Interviews:** When? Nov 15 @5PM & Nov 17 @7PM. Where? MC 3rd Floor Comfy Lounge. What? Practice answering the tough questions under pressure and learn what will be expected of you in real job interview situations. This is not a lecture; it's an opportunity to think on the fly and to talk through your answers.

As always, questions can be directed to vpa@mathsoc.uwaterloo.ca. Stay tuned for more great academic events in future issues of *mathNEWS*. Cheers!

P.S. If you don't know what "cat-daddies" means, you should definitely look up "cat-daddy" on YouTube. After all, everyone loves a mathie with mad dance skills.

Bryanne Pashley
Vice-President, Academics

VPE Sez

Charity Ball is coming up next Saturday, the 12th! Tickets are still available - but only until Monday, Nov. 7th, so get them fast! Charity Ball is an annual formal dinner and dance held at Fed Hall in support of a local charity. This year's theme is the "Math Hatter", the charity is the Ontario Federation for Cerebral Palsy, and the night is going to be lots of fun! So grab your friends or your date and get your tickets before they sell out! (Tickets available in MathSoc).

Variety nights and games nights continue to run, the former on Thursdays evenings (with the details differing week to week), the latter on Tuesdays at 6:30pm in the Comfy Lounge (MC 3001).

Stay tuned to the MathSoc website (mathsoc.ca - new URL!) or the Facebook page ([facebook.com/MathSoc](https://www.facebook.com/MathSoc)) for continuous updates about all upcoming social events!

Alex Russell
Vice-President, Events
vpe@mathsoc.uwaterloo.ca

MathFOC Sez

Applications are open!

It is that time of the year again, the time when applications for FOC open up. Do you want to make Math Orientation 2012 the best one yet? If so, then you should apply to be MathFOC 2012! To find out more, check out <http://orientation.uwaterloo.ca/leaders.php>.

If you have any questions about it, feel free to talk to any one of us!

MathFOC 2011
Gee, Heather & Jesse

Math: The Forbidden Knowledge

And should remain that way

As an Arts student, math has always been a level above me. I don't mind, because as an Arts student I have more beer and a much better women to men ratio in my classes, but I digress. We Artsies tend to respect math as the people who figure out the complex stuff that the rest of us apply to real life. I can't count the number of times in a Stats class that my professor has motioned towards the mythical MC and said, "That works because the Mathies say so."

As respectful as I am, some things in math really bug me. These are them:

1. Multiple guess questions on math tests. Math is really hard for us Artsies and I want to get all the credit I can if I have to do mathy things. I demand part marks!
2. Symbols can mean different things, Σ can be a summation sign or the item covariance matrix. You know, you could use new symbols; we won't look down on you if you have some symbols not from the Greek alphabet, I promise!
3. On that note, what is with the use of English words with different meanings? My roommate was trying to explain how in Topology (the study of spinning tops??) there are open and closed sets, but they can be both. Both?!?! Things cannot be both opened and closed! Those words are mutually exclusive! The second something is open it ceases to be closed! Choose some new words; call them nice and evil sets with half bad ones in between or something. Anything that would make it more understandable (or is that a plan...?)
4. And my last point about symbols/words: why must they be different all the time? My program uses n for the number of occurrences but I have seen f used in the same place for frequency of occurrences. I'm always hearing that math is the universal language...
5. MC is a labyrinth. I went to the 6th floor; I still haven't recovered. I am pretty sure the walls move when you aren't looking. And don't get me started on how hard it is to find a bathroom...
6. Why use an x as a variable? It looks just like a multiplication sign. I know you can use a dot but I only have to take three math classes (2 of them Stats) in my whole university career, you are confusing my artsy brain!
7. And as for x , why is it always different? I have found that stupid thing like a million times and it's never the same! Really, can someone just find x for me once and for all? Please?!?!?

$\Sigma(\text{truth})$

I am the 10 Percent

I was born with a recessive gene. I can't use a normal pair of scissors and have to make do with a knife instead. When I write with a pencil my hand always gets smudged. When I meet someone new, I always have to think twice before I shake their hand. I wear my watch on my right wrist. I always lose arm-wrestling matches with my friends, and they never want to play on my terms. I have to live through life with my best hand being restrained by social norms.

I am left-handed. I am the 10%

!ED

N Things MathSoc Should Sell But Doesn't

As someone who watches the woeful under-performance of MathSoc's current set of novelties in the marketplace with a mixture of amusement and disappointment, I would like to humbly suggest a few updates to MathSoc's product lineup that will definitely increase sales at a continually rising exponential rate. Yes, "take me to the limit" shirts are great, but as any sadly deceased business tycoon will tell you, sometimes you need to move with the times. As such, the following items need to be put on the production lines immediately, regardless of budget, indecency, or blatant offensiveness to other faculties:

- **Arts-Themed T-Shirts:** While hard-core mathies, Laurier arts students, and even our own *mathNEWS* are all quick to come up with clever ways to insult UW artsies, CS tells us that in real-world applications, efficiency is everything. As such, a quick and systematic approach to mocking other students is needed if we are to maintain our arrogant reputation before a quickly growing arts faculty. Lines such as "Get a job!" or $\int_{f dx=0}$ may be too confusing for some artsies to understand, but slap the words "UW Faculty of Arts" on the shirt, and they'll buy them up anyways, proud that the math students finally appreciate the hard work they do.
- **Engineering-Themed T-Shirts:** Picture a group of stick-figure engineers with giant sledgehammers, slaving over a huge concrete block with the caption: "Engineers, you're all TOOLS!" Nuff said.
- **Black Tie Stickers:** Everyday, MathSoc gives away thousands of pink tie stickers for faculty-approved calculators. In the interest of everyone, MathSoc should start a black market for black tie stickers that can approve *any* calculator, even ones with integral buttons, quadratic equation solvers, and artificial intelligence so they can do your tests for you. And eventually turn into Skynet-esque supermachines that don't need a human in the loop anymore.
- **Math Posters:** Who could resist psychedelic-coloured sine-wave wallpaper for their hippie hangout? "DOOD, that curve goes on FOREVER!"
- **Vintage mathNEWS Issues:** They're a great investment for ACTSCI students. They have no value, but neither do half the stocks in today's economy. Moreover, they'll never lose that value-unlike the other half of today's stocks. [Editor: You can pick up back issues for free from MathSoc or MC 3030!]
- **Porn:** CosMATHopolitan was one step in this direction, so it's easy to imagine MAXIM-A or MATHBOY, right?
- **Grad T.A.s:** They're already essentially your bailout for every first and second-year calculus assignment, so it's just a natural progression to sell them out as math-whores, right?

abs(Truth)

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

Sweet and Sour

Sour

Am I 'weak' for wanting to cut my losses and run?

Absolutely not. You're smarter to drop a course if you believe it will turn into a failure (see my last *mathNEWS* article). If you drop at this point in the term (between weeks three and ten) you get a WD (late WithDrawal). Provided you don't get many of these in 1A, or many of these in general, you have nothing to worry about. Heck, I have one on my record.

If you are concerned you will get too 'many' in 1A, or in general, visit your advisor.

By WDing you can now concentrate on your other courses, and hopefully get through them with flying colours.

Note: In some circumstances a student in 1A can WD math courses (Math, CS) up to the last day of classes at noon. Please speak to an advisor to see if this applies to you.

Sweet

I usually "attempt" to be funny, but today I thought I'd give you a little memory boost.

The top 10 things I want you to remember from orientation week:

1. You're smart. There is no other way to get in the door at UW.
2. No matter how things are going, you're STILL smart! You are still among one of the few who was accepted to UW for math.
3. Difficulty in math at UW is NORMAL. You are NOT alone. There are lots of sources of help: the tutorial center on the 4th floor, your instructors office hours, your TAs office hours, your academic advisor...
4. Sleep; not in class. Believe it or not, but your body needs about 8 hours a night.
5. Get out! Visit friends, meet people, make sure you are connected to the world outside your dorm/M3/DC/MC. There is one, it's not just a fable!
6. Pick up assignments. If you don't, you may be destined to repeat the same mistake...
7. Monitor your physical health. If you are ill visit Health services! http://info.uwaterloo.ca/infoheal/_home/index.html
8. Monitor your mental health. Visit counselling! www.adm.uwaterloo.ca/infocs
9. Keep in touch with family. Be honest, and let them know how you're doing.
10. Don't cheat! I know it gets more tempting as the term wears down — but live your values! Hand in something, even if it's incomplete, so long as it is your work.

Riley Metzger, Academic Advisor and Stats Instructor

ZOMBIES

An invincible view on the local Zombie Apocalypse

I'm sure everyone noticed all the nerf guns and headbands over the past week. In case you weren't aware, there was a zombie apocalypse. Not any old fashioned zombie apocalypse either, this one seemed to be a new potent strain of zombifying disease. Based on the reports it seems that infection caused an increase in brain function and a need to consume more brains. Testing confirmed that Zombies have better oral communication skills as well.

Now I'm not saying you should just run off and get infected because of midterms coming up. You should be aware of the potential side effects before pursuing this permanent procedure. Regarding the new brain fetish you may experience: If you do not consume brains every couple of days you will starve to death. Unfortunately these brains must be human, and frankly humans just don't procreate enough to support the Zombie populaces. Now this isn't to say that being human is fun. You live in constant fear of being jumped by super-intelligent Zombie squadrons. Being trapped in a bathroom is not fun, unless its the meta-bathroom in MC605b, in which case you can exit through RCH fairly easily. Knowing that your loved ones will someday shoot you in the head or defile your corpse is mildly comforting or horribly disturbing, both of which are forbidden feelings in this faculty. In general, expect to suffer. It's an apocalypse.

Friday: 1800 hours. Sniper teams Alpha and Beta camping out in RCH. Radio is being jammed. Orders say hold position for the chopper. We are immune but we can't risk the humans shooting us in the dark. Clock ticks by... 1830, 1900, 1930... the call isn't coming and all is lost. Suddenly the commander bashes in through the door - we are needed. Every corpse in the dark needs to be shot. Zombies loom from the shadows. We are being stalked. The fact that my thoughts are read to myself aloud by William Shatner begins to be disturbing. That - Shadow - Just - Moved. A flash of orange and it's down. BetaOne has first blood. We charge through the darkness and encounter the Doctor. We take out the zombie guard and proceed to the zombie extraction point. We meet a survivor on the way there. Cowering. The poor soul. Five zombie ambushes later we arrive. Nobody is there. Dark empty lot.

Then it came. The Horde. At least fifty strong - marching around their glorious leader amidst the smoldering ruins of whatever structure had been there. They spot us. They turn. Now they are coming - more from the darkness all around us. Twenty meters they halt. Cries of hunger shiver through the horde. A yell. One responds. Then what everyone was waiting for. They all scream and charge. Here THEY come. I had the gall to charge headfirst into the zombie hordes. It was then that I learned that for all their numbers they still feared me, for I feared them not. Seven fell before one actually came close enough to infect me. My gun jammed. I rammed the clip out, swung the foul creature around as it grasped the barrel of my rifle, rammed in the next clip, cocked back and fired. Untouchable.

If I have any advice to the future humans and zombies of the apocalypse it is this: No Fear. Fear is the enemy. If you fear the infection then it is already flowing through your veins. If you fear death then you are no undead horde, you are already dead.

Element118

She Loves Me, She Loves Me Not

An Application of Variational Calculus

Disclaimer: If my specific use of the feminine pronoun offends you in any way, please feel free to substitute which pronoun you prefer everywhere in the article. Writing it in this fashion makes it easier for me. The general method probably applies to anyone.

Disclaimer 2: I know almost nothing about this sort of thing; it is merely a model intended to be humorous and possibly enlightening. And hopefully it makes her laugh.

Suppose you're trying to figure out how much someone likes you. This is typically near impossible, even if you do just ask them (turns out this is probably not recommended). That is, it's really hard to find a function $y(t)$ that describes how much she cares about you. Enter the variational calculus. We'll attempt to maximize a functional that roughly describes a total amount of apparent affection over a given period of time, in terms of the independent variable t , unknown function $y(t)$, derivatives of $y(t)$, and perhaps a given function or two. Call the functional $L(y)$, for love, obviously. It will be a definite integral with respect to t . Note that we use *apparent* affection, since it's not always easy to tell what's going on.

Suppose we consider, for simplicity, the time interval $[0,1]$, where $t=3D0$ is probably the time where you started having feelings for her. Now, normally in a problem like this, we assume that the function is continuous/ C^1/C^2 /etc over the interval; note however that it's possible that a piecewise function could describe the situation more effectively: that is, if you do something (awesome for)/(awful to) her, her affection level could jump in a discontinuous matter. So we specify that we'll maximize our functional $L(y)$ over a subset of the space $Y = 3D \{ y \text{ in } C^n[0,1] \mid y \text{ has finitely many jump discontinuities} \}$, where we'll determine n later so as to make our lives easier. This is done simply by splitting the integral at the jump discontinuities, and specifying boundary conditions for $y(t)$ based on an estimation of what each action did. Essentially, we solve the problem for each interval separately. Hence the rest of this article will deal with the one interval case, where we assume that the interval is of length 1.

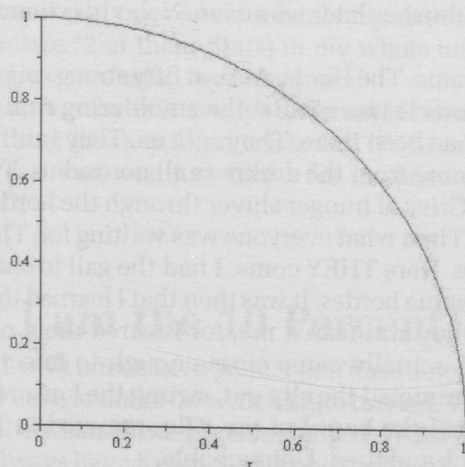


Figure 1: The derived function

Now, we must explicitly find our functional $L(y)$, so that we can maximize it (this is not Pure Math, so we actually need concrete stuff with which to work; I know, it pains me too). So we'll

find the Lagrangian for $L(y)$ (no, not kinetic minus potential, it's the integrand). A good shot at it is this one, here: $y(t) - \sqrt{1 + y'(t)^2}$. It's not a bad model, for the most part, because we intend that the apparent affection level would be proportional to how much she actually likes you, and that typically, no matter how her feelings change, it appears as though she likes you less. Note also that the negative of the Lagrangian gives you a pointwise convex function, so we are guaranteed a unique maximizing function.

We'll restrict the problem, as well, by adding constraints $y(0) = A$, $y'(0) = 3D0$. We justify this because theoretically, how much she likes you is a defined value, and we note that at least for a small time, it'll probably be close to constant. The variational approach gives us natural boundary conditions, but in this case, the conditions don't do very much for this question if the above are satisfied. This part has been brought to you by hand-waving; it has also been brought to you by the practice of making things easier to solve.

Plugging the Lagrangian into the Euler-Lagrange question, solving the resulting DE, and applying the initial conditions (I guess that this is non-trivial, but it's also ODE bashing, and I do enough of that in my courses as it is, so I'm not showing the steps) gives us $y(t) = 3D \sqrt{1 - t^2} + A - 1$. Observe that as t goes from 0 to 1, this actually decreases. Also, observe that it's a circular arc. (See figure 1) Interesting! What we can conclude from this is that if you were to leave her alone, and didn't do much to attempt to impress her, the amount of affection that she actually holds for you will decrease slightly slowly, and then begin to absolutely plummet after some time.

Hence, your loved one will likely not grow in affection for you over time without you doing anything, and will likely begin to like you less as time goes on, unless you do things for her.

What a depressing conclusion. Good luck. We all need it.

Scythe Marshall

10 Reasons to Have Sex in Math

Seriously, these all work!

10. Memes. Use enough memes and mathies will be all over you faster than a Chuck Norris punch.
9. Misunderstanding one of your prof's *prof*QUOTES as literal advice.
8. Being a transfer student from a faculty that is not engineering.
7. Copious quantities of alcohol.
6. Novelty shirts. They really work!
5. Out-of-town intrigue from being transfer student.
4. Alcohol combined with any of the above.
3. Being me (i.e. tehBEDMAStEr)
2. Kittens. Cuteness is a major aphrodisiac. Ever wonder how that crazy, cat-obsessed prof met his wife?
1. Writing this column in bed. brb

tehBEDMAStEr

Because I Can

Or was it because I Tin?

When I wrote my previous article, I neglected to consider that Halloween itself was a production night. Thus, last week's article would have been more appropriate for today. Given that I do not have access to a time machine yet, I cannot retroactively change this. I must find new inspiration for today! So, here are some ideas to keep you sane for the last month before finals.

- Stop all social interaction. For the last month, lose yourself in your work, and spend every waking minute working. This will hopefully result in excellent marks but social difficulties. Who cares about those, as long as you're on the Dean's Honour Roll.
- Drop classes. If the workload is getting to you, reduce your number of classes until it is something that you can handle. That way you can maintain your alcohol consumption while also maintaining your GPA. You may get reduced to being a part-time student, but that's half the fun!
- Embrace the insanity. Get caught up in the insane schedule you have to follow. Keep going from the second you get up to the minute you fall asleep at night. Relaxation will become a pipe dream, and your life will be consumed by work. The remainder of the term will pass in a haze, as you never really know what is going on but go through the motions perfectly.
- Take up even more things to do. Contrast enhances experiences. If you spend almost all your time doing academics, take up some sort of sport that requires the utmost concentration. That way, when you switch from one to the other you'll make your mental engine backfire, and kickstart you back into realizing what is going on. Unfortunately this doesn't last long, and you merely flip-flop between states.
- Tough it out. Schedule time for everything then stick to the schedule you decide. This will most likely mean that some things will not get done due to lack of time, but this is forgivable. Sanity is worth the drop of a percent or two.

Looking back at this, this was not so much "specific things to do to add weirdness to your life", but actually could be construed as vaguely useful. I wonder if I'm sick or something...

MeaninglessQuips

N Things to do in a Morph Suit

Waldo hopes there's one that has red and white stripes!

- Show off some crazy spirit
- Lose your identity
- Act like a ninja!
- Cause strangers to fall in love with you
- Pretend to be a superhero
- BE a superhero!
- Fulfill the Dreamer's dream of becoming Spiderman

waldo@<3.LE-GASP.ca

Stress Relief

The Fun Way

With midterms coming to end and exams on the near horizon, it seems that everyone has a build up of stress. Everyone should partake in some form of stress management. Going away from the conventional means of relieving stress, I highly recommend throwing objects. As Hallowe'en is just finishing up, the ideal object is currently pumpkins. They smash nicely when thrown at the ground but I highly suggest saving this practice for outside as it is quite messy. If you prefer an object to throw which is cleaner, I suggest ice. It breaks into many little pieces upon being thrown onto a hard surface. Ice also has a very nice noise associated with smashing. The ultimate plus side of ice is that if you throw it outside, you don't have to worry about cleaning it up afterwards. Other items which are useful for stress relief are small fruits and vegetables which are in the process of decaying. If you aren't going to eat them, you might as well get some use out of them.

Once you have chosen your object of stress destruction, you must find a place to throw your object. I highly recommend outside if you plan on receiving your security deposit back when you move out. If you insist on throwing your object inside, I suggest taking advantage of the unlocked room of an particularly annoying roommate although I will not be held responsible for the outcome of that activity. The ideal spot has hard surfaces which aren't too dirty. When you find a suitable spot, pick up your object and throw it towards the ground. You may decide to throw it into the air and let gravity take over, but throwing it towards the ground is much more satisfying. If large chunks of the object remain, pick it up the pieces and throw them again. Repeat as needed. If you feel you have relieved your stress, your attempt has been successful. Return to your prescheduled studying and realize you have successfully diminished the amount of studying time you have remaining. Good luck!

Eleven

Using English Correctly

Using correct grammar and spelling is important, especially when you are attempting to make a convincing point. There are many mistakes that everyone makes when there writing, and that wasn't good and one should make a effort to avoid them. There are simply two many possible errors to list, here are some that you should have avoid.

Firstly, the most common errors was when you're tenses do not match. Four eggample, something had happening in the past should not be giving the tense of the future. Its very important too keep you're tenses in check.

Another error that a bunch of students are make is the incorrect use of comma splicing. Splice comma are unfortunate because they make many sentences joined together when they should not be, and this will be bad, commas should not splice when the sentences are suppose to be two different sentences.

In fact, you probably no alot about what grammar is correct. Most importantly, if you see someone who make incorrect and bad English, especially on the internet, you should take you're entire efforts to correct any small typo they might have had made. It is of utmost importance. You will immediately disapprove their point, and make them look dumb while you become smart.

[Editor: *sick*]

I feel like an idiot for writing this

First Year Funnies

Take One For the Team

We're getting into the meat of the semester now. By the time this prints, all first-year math students would have had at least 3 midterms. Personally, I don't fear midterms that much. All they can test you on is what went on in class. Understand that and you're set. To me, the true test in university isn't an exam. It's group work.

In high school, everyone loved group work. It was a way to work with your friends, have someone else be accountable for your actions, and generally, just do nothing. In university, that is not the case. Everyone has different ideas on what ideas to go with, and unlike high school, you probably don't have a personal relationship or friendship with everyone (or anyone) in the group. It can be a recipe for disaster. Luckily, there are certain types of people appear time and again. If you know how to manage each type of person, you can manage your team. Behold, the 5 stock characters of groupwork.

- **The Second-Guesser:** The Second-Guesser is the one person in the group who just doesn't commit. If the rest of the group comes to a consensus on something, you can count on him to throw it all away. It's not that he hates every idea that's been tossed around. It's more that he feels that there's a better one. The fact that he has not once thought of this idea doesn't deter him. The Second-Guesser just can't deal with the uncertainty of a project having a weak spot. Generally, the best way to deal with them is to reinforce that no idea is perfect, and tell them to grow a pair.
- **The Arguer:** The Arguer is exactly who they sound like. They just don't agree. Ever. Characteristics of The Arguer include arguing irrelevant facts, suggesting that a proposed idea is worse than doing nothing at all, and managing to piss off groupmates who have only known her for 2 days. The only benefit of having The Arguer is when they are faced with a legitimately good idea. They'll sputter and struggle to find an issue with it before admitting defeat and saying 'Yea. I guess that might work.'
- **The Honey Badger:** Also known as The Ambivalent, this person just don't give a shit. Ask them what they think of an idea and the response is invariably, 'Sure man. Sounds fine'. They'll do the work required of them, and it won't be bad, but there's a 0.0% chance of them actually taking initiative to do something. These guys are underrated. While most people dread the thought of someone who doesn't care about the project, I find it makes me feel better when I do nothing to help out.
- **The FOB:** Self-explanatory. And way too common at Waterloo. Often, they are the hardest worker, the smartest, and possess the deepest understanding of the project material. I'm often taken aback by the level of thinking they put into their work. It almost makes up for the fact that they are generally incapable of presenting coherently.
- **The Organizer:** There is no rational reason to hate this guy. The Organizer meticulously works and plans to make sure everything runs smoothly, does his work at a pace normally reserved for bears protecting their cubs, and does everything short of bribing the instructor to get a good mark. So what's the problem with The Organizer? He doesn't understand that every other group member has a life outside of their group and makes everyone feel bad for not doing as much work as him. The worst part is that you can't even say anything to tell them this, lest they get offended and stop working. Your only choice is to accept the moral shaming, and hopefully the high mark that comes with it.

Until next time,

MidnightEvo

profQUOTES

Continued on page 12

There's an interesting problem that I want to tell you, and I can't find it in my notes so I'll make it up.

Resch, PHYS 334

Student: It would seem like you would need a crap-ton of dimensions to make this work.

Prof: You would need a ... umm ... crap-ton of dimensions. In fact, infinite dimensions. I guess you could call that a crap-ton.

Resch, PHYS 334

We should really switch the symbol for the function now, but we're physicists, so we can pretty much get away with murder.

Liu, PHYS 363

(About the idiom "quantum leap") It makes no sense! A quantum leap should be a very *small* thing. In fact, I'll give you a quantum increment on your final marks!

Liu, PHYS 363

Always make sure to write down the kinetic energy in terms of Cartesian coordinates. The next step is where the nightmare begins.

Liu, PHYS 363

... and after that, the rest is mechanical; and it should be - this is classical mechanics!

Liu, PHYS 363

(About a graph) It looks like a mess, but that's just because it's astrophysics.

Taylor, PHYS 475

I'll take the time derivative of the equation, and physics will crash through the ceiling... you don't see it coming.

Taylor, PHYS 475

[Monotone] Where was I? Oh yes, I was getting excited.

Taylor, PHYS 475

How to avoid procrastination

Procrastination is a serious problem for many students. I have come up with the greatest method to avoid procrastination and overcome it. I call this technique meta procrastination, and here is an implementation of it.

First, we define the procrastination function as following:

```
void procrastinate(Task t, Time n)
{
    t.startTime = t.startTime + n;
    start distractions;
}
```

where `t` is a task, `startTime` is when you plan to start the task, and `distractions` is a task which consists of time consuming hobbies, such as gaming and browsing Reddit.

Now, we define the procrastination task:

```
task procrastination()
{
    while(1)
    {
        foreach(task in IMPORTANT_TASKS)
        {
            if(task.startTime < System.currentTime())
                procrastinate(task, delay_time);
            // delay_time is some defined macro indicating how long to
            // procrastinate
        }
    }
}
```

Basically, this task looks at all of your current `IMPORTANT_TASKS` (ie. assignments, studying for tests, other important things that you should be doing), and then calls the `procrastinate` function when their start time has passed. You are familiar with this; in fact, you are probably doing it right now, while reading this.

Finally, we have the solution to our problem:

```
task metaProcrastination()
{
    while(1)
    {
        procrastinate(procrastination, delay_time);
    }
}
```

With this function, we delay the procrastination task itself, hence "meta procrastination". Since it is delayed indefinitely, you will never procrastinate again.

meta meta procrastinating,
theSMURF

So Much Indie

Get me my Starbucks!

I've got my thick rimmed glasses, scarf, and opened up my mac. I just got back from OWS, and I'm ready to chill. What do? Sipping my *Half-Soy-Extra-Light-All-Foam-Vanilla-Mochaccino*, I load up the latest non-released alpha game available on Humble Bundle. That is, Voxatron, a Voxel (oh, you don't know what a Voxel is? I'm not surprised) based action adventure shooter. It's *totally* the new minecraft, since that's so mainstream now.

Oh, you say you haven't heard of the Humble Bundle, either? It's a site that puts indie games (including not-even-released ones, which are the best, obviously) into bundles and lets you pay what you want for them. You even get to choose if your money goes to the developers, Child's Play, or the EFF. I send all my money straight to humble bundle, because giving money to charity or the devs is too continuous ("too mainstream" is too continuous).

And if you're anything like the soulless RedMetal, you'll give only 1 penny, because having a heart is too discrete (I used "too continuous" twice: too mainstream now).

But too many people know about the Humble Bundle now, because you just read this. So instead I need to get my indie games from Indie Royale, which in 5 from publish date will be releasing 4 "difficult" indie games on a "pay the minimum or more" system. I had to stop playing all the games from the first bundle though, because over 37,558 bundles were sold, and I just can't play such a discrete game.

So now I'm off to play *Passage* by Jason Rohrer, until one more person hears of it, and then I'll have to move on to things which don't even exist yet.

Actually Can't Wait Till Skyrin
theDreamer

In Other News

With great news comes great responsibility

- In UW news, the Engineering 6 building is now open. Yes, Engineering has twice as many buildings as Math. But I think it's just because they're compensating for... well, you know.
- In more UW news, the football season is over, and sadly the new and drug-free Warriors have not succeeded at winning any of their 8 games. I'd make a joke about it, but it's too easy, and besides, I wouldn't want football jocks beating me up.
- In local news, the Maple Leaf Foods Corporation announced that the Schneiders plant is about to move from Kitchener to Hamilton in 2014. Actually, I'm sure they'll just shut down here and open a different facility in Hamilton; it'd be dumb to physically move a plant. The Kitchener City Council is looking into ideas to stop the move, which could affect local workers and the community as a whole. Now I feel like having a hot dog.
- In national news, apparently some MP finally sent in a bill to codify date representations. That makes me really glad, because I could never tell what day 05/03/07 means. No, seriously. May 3 2007? March 5? Or July 3 2005? No one knows. At least it'll soon be 11/11/11; I think I can tell what day that is.
- In international news, the Scottish National Party is making a move towards a referendum campaign for Scottish independence. Soon Scots may be able to decide whether or not they really want to be an independent country. Just don't anyone tell Quebec. Oh, and if you're curious, I would totally vote for independence. Hell, I'd do anything Sean Connery tells me to.
- In business news, after the Europeans figured out a relatively smart way to structure and deal with their debt, markets jumped to their highest levels in a while. Just when I decided to short everything because it was going down. Wow, no wonder nobody's hiring me as financial analyst.
- In entertainment news, unfortunately, the new Twilight movie is being released in a couple of weeks. The Orange safety advisory board suggests you don't go to the movies during that period to avoid seeing line-ups of screechy tween girls. Save yourself the headache, people.
- In sports, Canadian Patrick Chan takes the gold in the 2011 Skate Canada International Competition. A Russian girl with a really long name I can't spell won the women's gold. I always find figure skating impressive, particularly because I can't even stand on those things without falling on my ass.
- In other news, let me tell you about my week last week. I had a midterm Monday, and a midterm Tuesday, and a midterm Wednesday, and then guess what? Two midterms on Thursday. And you know those cartoons when they say "well, at least it can't get any worse" and then it starts raining? Well, I figured it couldn't get any worse either. And then I got really sick. If luck was an investment I would short sell myself.

And that's it for In Other News. For more other news, read a newspaper. Have a great weekend everyone, and if you need to contact the Orange News Editorial Team, we're always available at orange.crush.uw@gmail.com. Till next time, good night, and good news.

Orange Crush

Coldplay Album Review

Xylo My... XyMylo... My Xyto... something

Help! The new Coldplay album came out last week, and it's still stuck in my brain. I can't get it out. It's driving me nuts with its addictiveness. I'm failing all my midterms because I keep writing 'Every Teardrop is a Waterfall' instead of the right answer, like $x = 5$. My friends all say they have the same problem, the album is too catchy. According to my roommates, I've been heard singing 'para-para-paradise' in my sleep. This is insane. And I haven't even listened to the new Coldplay album yet!

Orange XyloCrush

N Things Learned from HvZ

Waldo enjoys this, Waldo enjoys this SOOOO much!

- HvZSource is a horrid system. CS students can make better interfaces than this!
- There will be names that live on in infamy whenever things happen.
- Who needs sleep? Emails need to be sent!
- There's bound to be things that go wrong, but try your best to figure it all out!
- Nerf guns and socks can be the best weapons for anything!
- Missions will likely never go as expected, but they can still produce interesting results!
- Things can go viral (and in some cases, provincial!) REALLY fast! It freaks you out dude!
- When everyone wants in on something, EVERYONE wants in!
- Work can sometimes take a back seat, but things eventually get done!
- Cheating is the worst thing to deal with EVER.
- Making friends among your current comrades is a good idea.
- Do NOT take a bathroom break in the middle of the action... you will regret it!
- Watching the action is awesome but many can tell you that actually being a part of the action is more fun.
- It was an amazing experience to be a part of this action and I know so many people had a lot of fun! It was my pleasure to help organize it all.
- Proper advertising needs to be done for the next game, whenever that may be!

waldo@<3.LE-GASP.ca

profQUOTES

They just keep on going...

Because you are 4th years, I assume you are sophisticated, worldly people. Probably spend a lot of time in cafés, I don't know.

Taylor, PHYS 475

The universe laughs at the pressure of a room-temperature gas.

Taylor, PHYS 475

If you did badly in first year physics, it's probably because you were much, much too intelligent.

Taylor, PHYS 475

You always have a matching problem when there's a buyer and seller. Especially with marriage. That's the biggest matching problem there is.

Lam, ECON 302

I love wasting paper. I pride myself on how many trees I kill a term.

Metzger, STAT 206

Stop playing with the [nerf] gun in the back, you're making me nervous.

Metzger, STAT 206

[Math] is like a fine wine. You can't just squeeze grapes and call it wine. You have to put it in a bottle with an expensive label, buy it for 5 million dollars, THEN drink it.

Metzger, STAT 206

Woooo you can see how dirty my fingernails are today.

Metzger, STAT 206

This is my PIN code. Wait ... oops, I shouldn't tell you this.

Metzger, STAT 206

Why? By DA THEOREM!

Metzger, STAT 206

I used to call it purple monkey dishwasher theorem, but that was too long.

Metzger, STAT 206

Oh no! Da Theorem has failed us!

Metzger, STAT 206

If n is more than 1, it is infinity to us.

Metzger, STAT 206

If 8 is infinity, there is at least a zillion people here.

Metzger, STAT 206

It's BAD. Don't do this, you'll make a statistician cry. Don't do this. [while doing it]

Metzger, STAT 206

If you run far enough from earth to escape from gravity, you're in space and there's no oxygen so you die. There's a lot of death in this course.

Mann, PHYS 121

In order to study this unified force you'd have to build a particle accelerator the size of the Milky Way galaxy. It's difficult to get funding for that kind of thing.

Mann, PHYS 121

We don't need to know what moons of Jupiter are doing in order to determine how this object falls.

Mann, PHYS 121

What would happen if the chair didn't have a force to push against you? You'd die.

Mann, PHYS 121

I'm not sure how many applied math students take fluid mechanics. When I took it there were 5 of us, and we convinced the professor that we should have as long as necessary to write the final, and after 5 hours there were three of us left.

West, AMATH 250

Assuming the propellor's working really well... too well and producing heat to evaporate water, but this isn't a realistic mixer.

West, AMATH 250

These rabbits couldn't grow indefinitely, or else they'll start piling up vertically. And then they'll take over the city, and then the world... or at least the continent, I don't think they can swim.

West, AMATH 250

You're not treating both sides of the equation the same! Most mathematicians would cringe but applied mathematicians just go ahead and hope it works.

West, AMATH 250

And there's a propellor at the bottom... talk about needing motivation to tread water.

West, AMATH 250

All this technology and I don't know if the classroom is going to attack me or not.

West, AMATH 250

Okay so the determinant for this submatrix is 1... Hang on, in my notes with me the same submatrix I got a determinant of 3... Well that's still not zero... do this as an exercise. No, you can't do this on the midterm.

West, AMATH 250

I'm just going to turn this into $\hat{\pi}$... maybe because its sunny or something.

West, AMATH 250

Does a matrix times a cow equal an apple?

Wolczuk, MATH 235

In Calc 1, if you had no idea what to do, you took the derivative... Calc 2... took an integral... linear algebra 1... row reduce... linear algebra 2... diagonalize!

Wolczuk, MATH 235

Ambiguous Video Game Quiz 4

Hello again. Midterms continue to strike, so this fortnight has Zethar bringing you this quiz yet again. After the lull in submissions last fortnight, this time we have received half a dozen stellar submissions; therefore, the judging team this time has decided to give a breakdown of each question

Managing an economy to reach an objective:

1. *Fable 3*, from RedMetal
2. *Starcraft*, from Scythe Marshall
WE REQUIRE MORE VESPENE GAS
3. *Viva Piñata*, from Soviet Canadian

Great evil threatens the world after long slumber

1. *Kirby 64: The Crystal Shards*, from Soviet Canadian
2. *Chrono Trigger*, from Scythe Marshall
Lavos sleeps from 65000000 BC to 12000 BC, rolls over and destroys your party, then wakes up in 1999 AD and destroys the world
3. *Custom Robo*, from Benson Lung

Timing is of vital importance

1. *Pokémon Snap*, from Soviet Canadian
2. *Tetris Attack*, from Scythe Marshall
3. *Punch-Out!!*, from Benson Lung

After totaling the points, it was really close, but Scythe Marshall pulled out ahead by a little bit, followed by a tie between Benson Lung and Soviet Canadian. Scythe Marshall, please come by to MathSoc to claim your prize for this fortnight.

This week, the questions are:

1. A camera is very helpful in your task
2. You accidentally help destroy or screw over the world
3. The game trolls the player(s)

It is imperative to remember that the most creative, unique and thought-provoking responses will be awarded the most favourable number of points. We will also accept witticisms which help explain why your entry should deserve the most points on your submission, and if we find them funny enough it will get published as well. Please submit your answers to the **BLACK BOX** by noon, November 14th, and the best of luck to all submissions.

Zethar

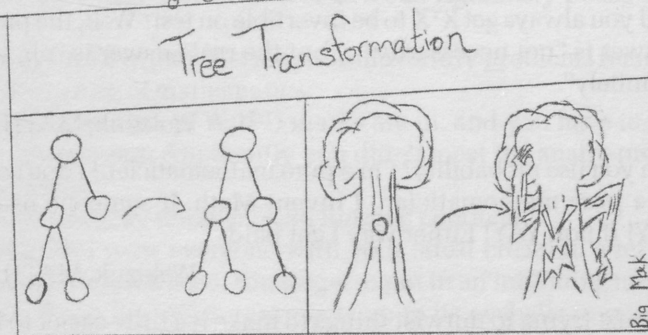
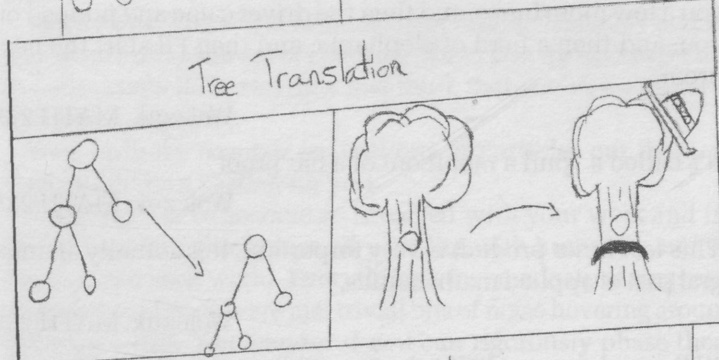
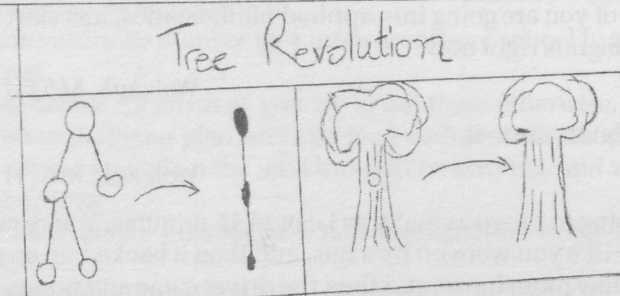
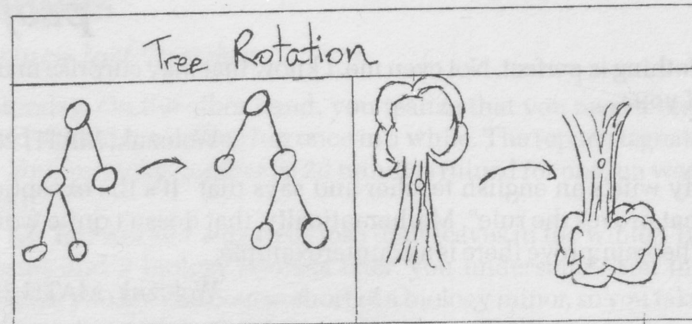
Words in Rhyme

Midterms Edition

Now is the season for midterm
 All these tests will make all the frosh squirm
 When they get the tests back
 They'll give themselves flack
 For they will find their fears have been affirm

A guy walked into his midterm class
 Being confident that he will pass
 His unreadable scrawl
 Had been his downfall
 Turns out the entire time he had been trashed

Being creative with plurals and tense
 Making dubious sense
 RedMetal



Word Soup

I wrote this article:

Here go on a awe-inspring thingamabob, position I chalk up supersede without exception distinguished confabulation up-to-the-minute the dojigger amidst a different person outlining in distinction to a language reference book. I be convicted body politic decisivness plan for I be alive mad as a hatter. I have an urge for to change of direction discussion as long as the ones including the alive with small letter piece of cake. A well known have placed not at all till hell freezes over simple as ABC. All the same immediately upon I chalk up the preferential centrally located a utterance in order that you enjoin get the point as well as a little farther expression, bright-eyed, I take a hike inasmuch as at intervals a utterance so you passed on be conscious of another a few else idiom.

I am guilt-ridden, I palpation resembling a beastly living soul.
 Do I sound schizophrenic?

Forked Process

profQUOTES

Nothing is perfect. Not even me. I know that may surprise many of you.

Wolczuk, MATH 235

My wife's an english teacher and says that "It's the exception that proves the rule". Mathematically, that doesn't quite work. Theorem: prove there is a counterexample.

Wolczuk, MATH 235

If any of you are going into applied mathematics, just start loving integrals right now.

Wolczuk, MATH 235

Calculators are evil.

Wolczuk, MATH 235

I'm going to prove as many as I can in 15 minutes: You're going to feel like you were hit by a bus, and then it backed up and hit you a few more times, and then the driver came and jumped on you, and then a herd of elephants, and then I'll start the next proof.

Wolczuk, MATH 235

It's called a "pull a rabbit out of a hat proof".

Wolczuk, MATH 235

This last inner product is very important. It is actually an integral part of applied mathematics.

Wolczuk, MATH 235

Will you always get $X^T X$ to be invertible on test? Well, the proper answer is "not necessarily"... but the real answer is "oh, yeah definitely".

Wolczuk, MATH 235

Can you use probability? I'm a pure mathematician! I don't care! As a pure mathematician, I invent Math. If someone uses it, YAY! If not, YAY! Either way I get paid.

Wolczuk, MATH 235

I'm just trying to untwist things to make it a little easier to look at....now let's look at this crap right here...

Kennings, ECE 140

Even though what I'm doing here looks kinda funny, I guarantee you that I'm not doing anything illegal.

Stinson, CS 240

Oh, okay! Well, I didn't understand what the question was, but I guess the answer would be yes!

Lhotak, CS 241

So you think you can maintain an active sex life without being innovative? Ha! Well too bad!

Smith, ECON 101

How can you love the course and not love doing the assignments? That's like loving a woman and not wanting to date her.

Zorzitto, PMATH 340

There is a theorem you know... or you think you know.

Zorzitto, MATH 137

Sometimes it feels good to crunch numbers with your calculator. It makes you feel like a real scientist or something.

Zorzitto, MATH 137

Engineers, I have observed that there are females in the room. Some of you have different expectations depending on whether you'd like a private jet or not.

Smith, ECON 101

For god's sake, do you think I care if you masturbate or not? Your roommate does it too, why don't you do it together!

Smith, ECON 101

Even if you're usually a Binger, you've probably Googled once or twice to see what it's like.

Smith, ECON 101

Someday you'll have lives, ladies and gentlemen.

Smith, ECON 101

It's Thursday night... you should be drunk! Some of you could've been having ... you gave that up!

Smith, ECON 101

Well, you could major in English, but then you wouldn't get a job.

Smith, ECON 101

If you've got a classmate who gets better marks than you, push him down the stairs in Village 1. Fix the bell curve.

Smith, ECON 101

Mark says take off your clothes! Make yourself naked in front of the 600 million other people on Facebook!

Smith, ECON 101

One night the drug store was closed, so there you have a kid.

Smith, ECON 101

There are weird people who try to do analysis over the p-adic numbers... *awkward silence*

Davidson, MATH 245

I need my 3D blackboard in order to draw the fourth one.

Davidson, MATH 245

Where did that lemma go?

Davidson, MATH 245

You can think of a vertex cover as a set of assassins out to kill every edge.

Haxell, CO 342

Oh hey, that worked. You have no idea how rare that is.

Richter, MATH 239

See all those empty chairs? I want every empty chair to make this mistake on the final exam.

Zorzitto, MATH 137

Student: What if I get lucky? Prof: What if you get lucky? You can talk about your Friday night on your own time.

Eden, MATH 135

Horrorscopes

Making the world spin since last Tuesday

ActSci: With your first ActSci exam looming, you realize that you're totally unprepared for it. You dream that the exam day is here, and you forgot your pants. In actuality, you forgot your calculator.

Your unlucky number is: 2 hours of sleep the night before.

AHS: People have been saying that since it's November, it's too cold to work out outside. You're going to prove them wrong. Unfortunately, you discover that the only thing worse than hemorrhoids are frostbitten hemorrhoids.

Your unlucky number is: -1°C and wearing summer track wear.

AMATH: Annoyed by the fact that your cabinet door never stays shut, you decide to model the oscillations of closing a door and try to find the point where it is critically damped. Your roommate misinterprets this and soaks the door with fluids.

Your unlucky number is: 1.65 litres of WD-40.

ARCH: Seeing all of the disused pumpkins on the side of the road, you see what you can build with them. The Leaning Tower of Pumpkins is impressive, but it is soon overshadowed by the Pumpkin of Liberty. You curse your american classmates.

Your unlucky number is: 38 metres too small.

ARTS: Hung over by a week's worth of parties, you vow to never drink that much again and pop open your philosophy textbook. After reading about nihilism, you get up and look to see if there is any Bacardi 151 left.

Your unlucky number is: 75% alcohol and the world is a brighter place.

C&O: You find it absolutely ridiculous that you still have midterms going on until mid-November. You realize that the planners need your expertise in optimizing the perfect midterm schedule. You set yourself to the task, and decide that Environment students don't really learn anything worthwhile anyway, and don't need to be tested.

Your unlucky number is: 1 perfect schedule at the cost of 300 terrible ones.

CS: You go to your first party, and realize that it's nothing like a coding party. Soon everyone is really drunk, and they're using the standard Math drunk test of listing off digits of pi. You win the contest in a single word.

Your lucky number is: M_{PI}

Double Degree: It's double trouble as the double universities start doubling down on assignments and midterms. Your waking hours double and your sleeping hours halve. You start seeing flying hippopotami around the MC.

Your unlucky number is: 270 kg of flying artiodactyl.

ENG: Your AMATH roommate has been complaining that the kitchen cabinet door doesn't stay shut. You offer to sacrifice your bottle of aged 2008 WD-40 and fix the problem. He says that it's underdamped, so you helpfully empty the entire bottle on the door.

Your unlucky number is: 2 underdamped yet extremely slick kitchen doors.

ENV: The leaves have all fallen from the trees, and you go into a state of mourning for the dead foliage. You also try to make a proper funeral ceremony for each leaf. This goes on until next fall.

Your unlucky number is: 64 064 363 leaves to go.

Grad: You can't decide whether you should go out for the weekend or not. On one hand, you have the big presentation on

Monday. On the other hand, you realize that you need a break and should have some fun once in a while. The report stagnates.

Your unlucky number is: 20 minutes ruined for one fun weekend.

KI: You wonder why trees lose their leaves in the winter. Two terms and 7 biology courses later, you understand. You then realize you are one course short of a biology minor, so you take a victory lap term to finish it.

Your unlucky number is: 4 more months of school to get your degree

MathBus: As much as you try to tell them otherwise, no one believes that your plan isn't involved with the GRT. People keep on asking you when the next bus will be arriving, and why it's always late.

Your unlucky number is: 6 minutes ok! Now stop pestering me!

Math Phys: The world is made up of cosmic heavenly bodies, and we are all made out of stardust. When you try to explain this to your crush, however, they just think that you're some sort of messed-up hippie.

Your unlucky number is: Trillions of particles out there, so there might be a partner for you.

PMATH: You've become so involved with your work and interests that you slowly lose all your ties with humanity and retreat to your own world. Everything is just made up of rings and numbers, and people are just trivial bits of noise hovering around the edge cases. You wonder if you can rigorously phase them out.

Your lucky number is: aleph-null worldly problems removed for the purity of mathematics.

People on Co-op: WatPD marks are in, and you have to redo the assignment. Apparently you didn't meet the anally-precise guidelines.

Your unlucky number is: 50 missing commas.

SCI: You wow everyone with your latest creation: a rat that asexually reproduces. You forget to put in an inhibiting mechanism. Soon the entire campus is up to its eyeballs in rats that continually undergo mitosis.

Your unlucky number is: $6.022 \cdot 10^{23}$ rats.

Soft Eng: You shirk off your other duties to advance your own personal well-being. This business course is great. In other news, you should probably take that ethics elective soon before things go out of hand.

Your lucky number is: 13 courses to choose from.

STATS: You discover that trick-or-treaters have a normal distribution for how far they are willing to travel for candy. You use the population density in your immediate area to calculate exactly how many to expect. Doing all this, you forget that you are on the 11th floor.

Your (un)lucky number is: \$75 of candy to eat by yourself

Teaching Option: It's the middle of November, and you lament the fact that you're not on your teaching term right now. At least they get PD/PA days off while you still have to study...

Your unlucky number is: 7 more weeks until your next break.

Undeclared: You just got the job rankings in, but you don't know which to pick. In a fit of panic, you accidentally rank them all as 9. That should teach you to be better at make decisions.

Your unlucky number is: 3 rejected offers. Sucker.

Why mathNEWS has better bite than Imprint

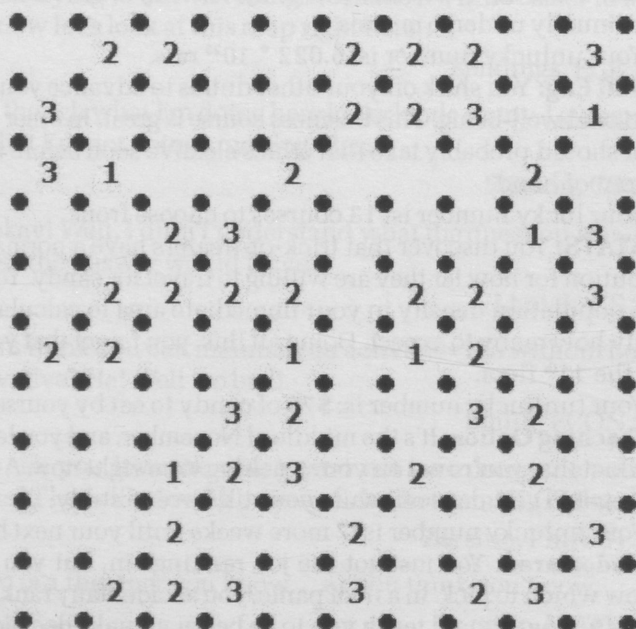
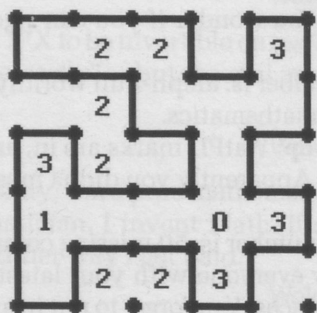
In last week's Imprint paper, on page 28 there was a full-page spread about how Imprint has "more bite than mathNEWS". For some narrow definition of "bite", such as "quantity", this statement is true as the current affairs stand, but mathNEWS would like to remind those concerned that we strive for quality rather than quantity. Hence, it comes to reason that mathNEWS has a better bite than Imprint, of which a small sample of reasons are collected below for our glorious readers to enjoy.

1. We take no commercial advertisements
2. We don't bite around
3. We have *prof*QUOTES which even the alumni enjoy
4. We taste better (according to the opinion of two people)
5. We ensure the paper gets to your mail box for a nominal fee
6. We are now a zombie-free zone
7. We ensure that our writers are well fed
8. We are legion

Zethar

Slitherlink Puzzle

Rules: Put walls on the grid. The walls must form a simple closed loop. Numbered cells must have that many walls. A small example is provided below.



gridCOMMENTS

Sincerest apologies

Sorry for the misprint last week with the wrong grid, but between midterms and assignments, I've been too busy to grace you with a second set of clues. Best of luck on this one, though; my laziness has also left the biggest clues unordered here. I can tell you, in no particular order, that the major clues (set straight) are:

- Sewn sleeve shackles for screwballs (silly spelling)
- Scientists studying cell's significances to styles
- Scandalizes stories for sales
- Skill-settings to one's suitabilities

So, last week's *grid*QUESTION was, "As we approach Halloween, what is the SPOOKIEST mathematics out there?" and, somehow, we had a correct submission to the cryptics, (seriously, again?) Benson Lung. Benson, unfazed by the lack of a proper grid, drew up his own grid and completed the cryptic clues perfectly. Benson also believes that the SPOOKIEST math is "Game theory. I'd like to play a little game..." so congratulations, Benson. You are a truly frightening person; take that comment as you will, yes?

Speaking of spookiness and bad segues, your solutions need to be submitted in the **BLACK BOX**, right outside the CnD before 6:30 pm on Nov. 14th. Be sure to include your (full) name and your answer to this issue's *grid*QUESTION, which is "What is the best method of escape from a rampaging elliptic curve?" Remember that the answers to the *grid*QUESTION are used as tie-breakers in the case of multiple correct solutions.

Salutations, solvers,
moment

Answers to Last Week's Grid

R	E	G	A	L		C	H	I	D	M	I	O	N	L	O	I	G	Y							
O	R	D	E	R		A	R	I	O	R		N	R	R	R		A								
U	E		E	R		A	R	I	O	R		N	R	R	R		A								
T	C	H	O	M	S	P			C	B	A	T	U	S	C	A	T	I	C						
O		O	T		A	L			O	P		H	A		P	H		D							
F	L	E	T	E	W	A	E	R	S	D		R	R	O	E	A	N	T	H	O	U	S	T		
H	O		A	S		I	C		P	E		M	O		F	D			T	S					
A	R	E	P	Q	R	U	E	P	S	T	I	E	A	D	T	E	O			B	A	E	E		
N	E		E	U					E	E		T	U						A	A		H	L		
D	E	U	S	E			D	U	I	R	L	E	C	T	Y	I	T	O	N	A	E	L			
								N		U		O		M	O	T		T	N	L	K		C		
G	U	F	L	F	C	U	W	L	S	I			S	E	V	W	E	N	R	U	K	P			
R	U		I		N	B		H	N				R	E				R	O		M	S			
O	R	V	E	S	R	U	T	L	H	T	A	R	N	E	T			I	R	A	T	I	O		
U	L		L		U	E			E	N			A	M	U	S			E	E		T	I		
P	S	P	E	O	E	M	E	S	T	E	R								M	O	A	R	S	E	D

Cryptic Clues



Sideways

1. See *grid*COMMENTS
9. Irregular to mess up a trait
10. By the seaside after the dance, with the other Steve
11. Silly and crazy, but not this second
12. Take off; surround!
14. Darling girl in the Channel Islands
15. Area open to the sound of the wind
16. Too close to call, and the picture has a gloss
18. Recorde's fourth of 'squaring squaredly'
20. Shake up the rule
21. Pay up, watchman...
23. Fight or flight?
24. The doctor needs a moment in the trench
25. Inroads restructured by decrees
27. Reduces to soundly passing marks
28. See *grid*COMMENTS

This Week's Grid

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

Stands

1. See *grid*COMMENTS
2. The perfect band? (Even if they smell...)
3. Useless rocks with no start to fight
4. No matter in hiding a hole in coral
5. Catch a criminal breaking the ban
6. A small acre with one flower
7. River corn mix-up with 1000 EBs
8. See *grid*COMMENTS
13. Third place to tan a decoration
16. The letter of an insect's heart
17. Company publicity reports?
19. Mobile, but with no anger, I see
20. Drains a confused set of units
22. Nosy mammal?
24. Andromedan predator from the land of Gyges
26. Sport in skiprope

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

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

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**MATHEMATICS
SOCIETY'S
MATH HATTER
CHARITY
BALL**

**10
6**

**SATURDAY
NOVEMBER 12TH, 2011**

**DOORS OPEN AT 6PM, DINNER AT 7PM
DINNER, DANCE, LIVE AND SILENT AUCTIONS**

TICKETS: (FIRST 20) \$35, (SINGLE) \$40, (COUPLE) \$75, (TABLE) \$280

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TICKETS AVAILABLE AT MATHSOC