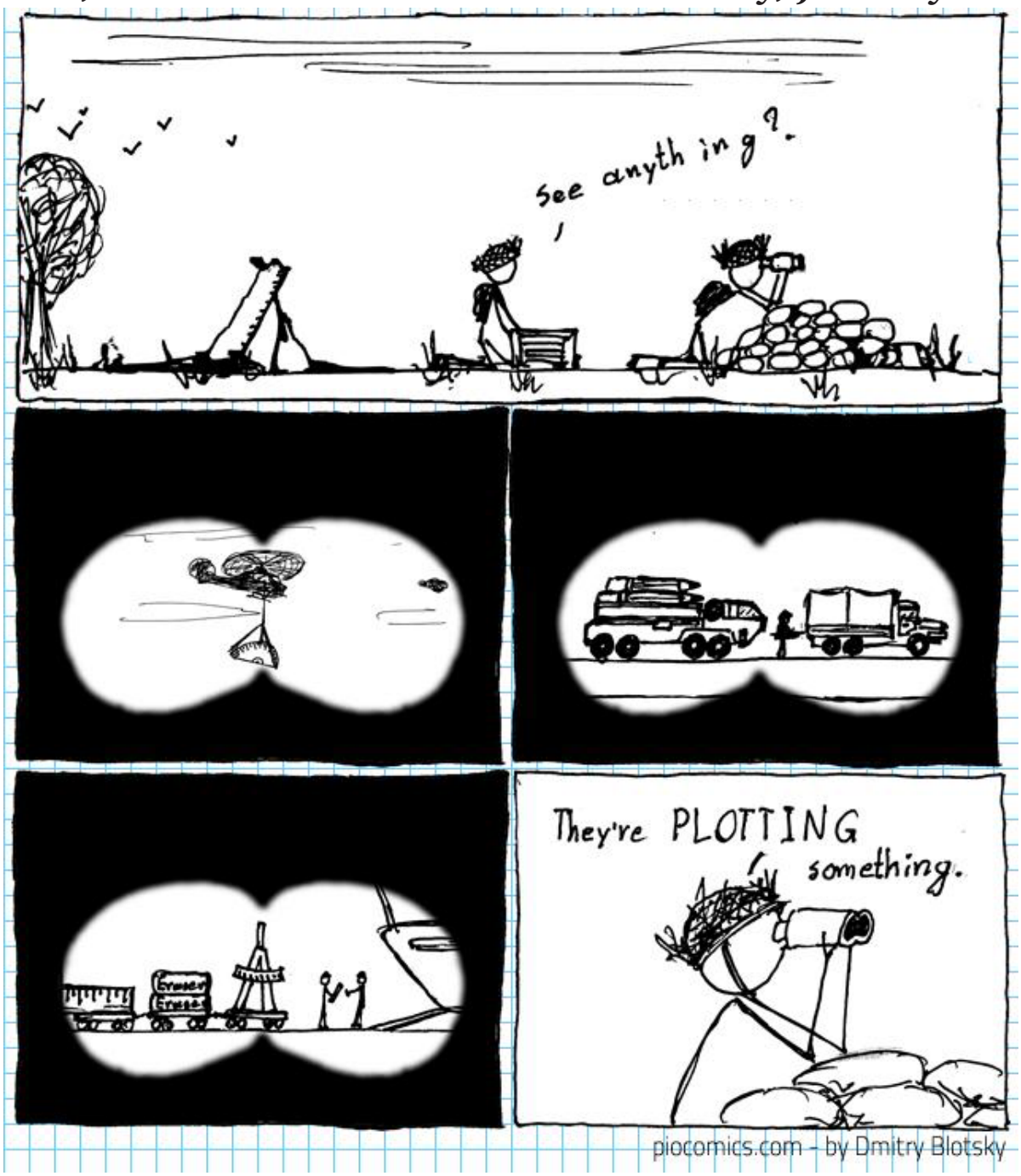
math NEWS

Volume 112, Issue 2 *Friday, January 29th, 2010*



Feds Mobilize for Election

Students Bunker Down

9 770705 041004

*look*AHEAD

***math*NEWS**	
January 29th	Issue #2 it exists, deal with it.
Febuary 8th	Issue #3 production night 6:30 MC 3038
Febuary 12h	Issue #3 lurks in your future

MathSoc	
Wednesdays	Games night at 7pm in MC 3001
Thursdays	Movie night at 7pm in MC 3001

Math Faculty	
Ongoing	Orentation Week applications

CECS	
Ongoing	Did you remember to apply for jobs?
Ongoing	Career Workshops, check CECS homepage

Miscellaneous	
Febuary 1st	Google AI Challenge opens: www.ai-contest.com

Not Midnight Capture the Flag

Where did everybody go?

Right, so where was everyone? I was the only person besides The Management to show up last Sunday night wanting to play some capture the flag. Maybe I was fooled by what I assumed were sarcastic negatives cleverly thrown in there so that no one was actually saying that such an event existed, but at the same time advertising an event which did exist. I like thinly veiled things like that; they make me chuckle. I've been showing up regularly when an advert appears in *math*NEWS, but I have yet to enjoy the thrill of running around the MC.

Well, I may just be making a fool of myself by thinking this phenomenon known as midnight capture the flag exists, but why should I be the only one? I'll continue to show up at the "un-" appointed time and who knows, maybe you will too. Wink wink, nudge nudge, cough COME THIS TIME cough!

CODE: wants-to-play-mctf < < access denied > >

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The editor(s): John Stevenson, John Baxter, Rami Finkelshtein

*mast*HEAD

Howdy concerned readers!

Well, with a FedS election coming up, it is not surprising to see a large surge of students actually interested in student governence. In a random poll of people who are actually willing to talk to me (I look a little bit like a hobo, normally) I have discovered that 3 out of 10 are actually planning on voting! That's 50% more than usual!

In some faculties, there are more people interested in running than voting. Take engineering as an example. They have infinitely more candidates than people who are willing to vote, including the candidates themselves! (Yay for acclaimed positions.)

I am of the opinion that student involvement is a good and healthy thing for University politics. However, we need to find better ways for students to get interested in the candidates, the issues and the platforms. Therefore, we should force the candidates to fight to the death in a public arena, preferably a colloseum or the DC foyer. Tickets should be free (votes are!); betting, on the other hand, not free. (Besides, this might solve some of the student overpopulation problems without resorting to such barbaric methods as constructing new buildings.)

***mast*HEAD Question:** If you were running in the FedS election, what would your platform be?

"The mangled corpses of my oppenents" (perki), "Cheat, Steal, embezzle - but at least I am honest about it" (anon), "Your mother voted for me last night, so..." (prime8), "Having stolen your passwords with my Dana Porter keylogger, you will prepare to bow before me" (thor), "BIGGER, SHARPER, AND HAS MORE KNIVES" (!case, cbhllhbc), "smaller, duller, and has less knives"(!BoB, !able), "Two feet high and made of solid cedar" (!e),"Quebec Independence Now!" (STX), "Now with 50% less AIDS!" (sector corrupt), "As chief warlock of the brotherhood of darkness, elect me or I will fwoosh you." (Richard), "I will provide you with an infinite supply of hookers & blow" (Unja), "Made of unobtanium" (butters), "Ou oue, made from the backs of slavers" (Unnatural Histotian)

ImpulsED

"I would make each professor's salary partially dependant on their number of *prof*QUOTES"

Are You STILL Lost in the Math & Computer Building?

All Floors:

- Female washrooms are in the two opposing corners with the elevators. Male washrooms are in the remaining two corners of the MC building.

3rd Floor:

- The wall with the sign for the Math Faculty Computing Facility is on the same side as the stairwell to SLC and the tunnel between 3rd floor of MC and the 2nd floor of DC.
- The opposite side has the MathSoc office, the Math C&D, and the Comfy.

4th Floor:

- There is a tunnel on this floor between the 4th floor of MC and the 3rd floor of DC. Note that there are no stairs in the tunnel — if you wish to get to the cafeteria in DC, you'll want to go to the 3rd floor of MC first.

!able

Election Section

Every year during the Winter term, the Federation of Students has seats open for student governance, this includes Senate positions as well. These positions then get filled and the student representatives begin their execution in the Spring Term. The two positions that are relevant to this section are - the Undergraduate Math Senator and FedS Councilor position. The nomination period for this year was earlier this term and we have enough candidates for each position so as to have an erection! I mean, election. :p

So blurbs from all the candidates have been compiled in hopes of making it easier for our fellow mathies to make a sound judgment when it comes to casting their votes. In the meantime, keep your eyes out for the campaign posters that will be all around campus and be informed through Imprint. Additionally, there are debates happening today from 12:30 to 16:00 at the SLC Great Hall followed by another one on February 8th from 15:00 to 19:00 again at the SLC Great hall.

For more information, keep yourself updated through the FedS election webpage vote.feds.ca

Ajnu Jacob
Your current Senator and FedS councilor.

Candidates for the Math Undergraduate Senator Position (1 Position Available):

Ian Lorne Charlesworth

I am a 3rd year Honours Math Undergraduate who is majoring in Pure Math and Computer Science, and for the most part I practically live in the Math Building. As for my experience, I have been an integral part of various student organizations since the dawn of my undergraduate career. Namely, I have been the student representative on MathSOC council, a Math Endowment Fund Councilor, Waterloo Science Fiction Club Executive and am currently serving as Vice President of Activities and Services of the Math Society. I have also contributed greatly to Math Orientation.

If elected to position, I will strive to represent my constituency to the best of my ability. Some of the recent issues that have come up during Senate are those that pertain to the shortening of Orientation week, Saturday Midterms, etc and I have been well informed of how this would impact the students. Determining the Academic Calendar dates, which in turn determines Orientation Week's duration is a issue that is bound to arise in Senate in the near future, I would be interested in tabling this motion during the time in order to make a sound judgment of how the student interest needs to be represented.

I hope to see you all at the debate today, feel free to come out and ask me questions personally.

Ian Kasper

I am an energetic, confident, experienced 3B Mathematical Sciences student (minor in Music) looking for your support to become the Math Undergraduate representative on Senate. During my time at UW, I have been involved and have been following several important issues that arose in Senate, including the Dubai debate, exam relief accommodations, tuition increases alongside budget contractions, introduction of Math Studies and the frosh week debate. I voiced my concerns to our student leaders on Senate without being a Senate representative myself, showing my dedication to academic issues at UW. Further, I have been a Student Councillor for 2 years and a delegate to the OUSA Fall General Assembly on behalf of the Federation of Students.

As a student senator, I would work with other student senators to provide an effective, unified voice for you on Senate. Specifically, I would:

- Ensure the university commits to meaningful consultation for the Frosh Week debate
- Lobby the administration to commit to improved teaching quality
- Focus on maintaining degree quality within the Faculty
- Build up the student voice on Senate to ensure student concerns are heard loudly and clearly

I hope to count on your support! Check out the Facebook Group "I'm Voting KASPER for Council/Senate!" VOTE KASPER!

Election Section

Jennifer Qiao

Hi my name is Jennifer Qiao, I am a second year Computer Science student and I am running for the math undergraduate senator position. I am the right person for the job. For the past two years, I have been deeply involved within the university. I have served as a CS Representative, Web-site Director of the MathSoc, and Volunteer Coordinator for the Waterloo Team Feds. I also involved with Math Orientation 2009. As a senator I will continue to represent the interest of the student body, and serve as a channel through which the students could express their needs and concerns. Fellow Mathies, give me your votes and give yourself a voice in the senate, by voting at www.vote.feds.ca from Feb 9th to 11th.

Sarah Sun

Have you ever had the feeling that the University administration is ignoring your opinions, your thoughts, and your voices?

Believe it or not, you do have a voice on campus. Your UW Mathematics Senate Representative has the responsibility to represent your ideas in Senate, and potentially change the future of the University.

As a 3B Mathematical Finance student running to represent your voice, I invite you to contemplate the following.

Think Possibility - In my 4 years at the university, I have seen 1 entire building go up, 2 more enter the stages of construction, and a new math building break ground. What else can you envision at the UW?

Think Change - Jobmine, Quest, and UWACE frequently come to mind when I think about change, but what else would you like to see improve?

Think Green - The movement towards a cleaner, greener, and more sustainable university starts with your ideas. Open discussion on how this can happen must begin with new ideas on being green.

Think about You - Your ideas, your thoughts, your wants, and your needs must be taken into consideration. You're paying thousands of dollars a term for a world class education; make the most of it.

Think Sarah Sun - I want to listen to your ideas about the university. Furthermore, I want to explore these ideas and bring them to the table. Ultimately, it's your future, and choosing the right representative in Senate is one step towards making your ideas count.

Vote for your voice. Vote Sarah.

Candidates for the FedS Math Councilor Positions (3 Positions Availabe):

Ian Kasper

For the past 2 years, I have had the privilege of representing Math students on the Federation of Students Students' Council, as well as on numerous Committees of Council. As a Student Councillor, I was able to bring about significant changes to the Ombudsperson's (now Student Resource Coordinator) job description, making her responsible for providing relevant legal programming to students. Another major accomplishment is being part of a team headed by Justin Williams that shut down a proposal to force co-op students across campus from dropping co-op after their third work term. I was also active in the Dubai debate, exam relief accommodation debate and Jobmine redesign, and was selected as a UW delegate for the OUSA Fall General Assembly.

If re-elected to Students' Council, I will commit to the following action for the year:

1. In conjunction with other Math Councillors, I will hold semesterly town halls for the Math Faculty to provide an update on the Federation, and to hear any concerns/suggestions students have.

2. I will investigate why effective legal programming has not appeared on campus, even though the SRO has been mandated to provide such a service.

Election Section

3. I will ensure FEDS has strong, quantifiable data on GRT service quality (including student consultation) to bolster our negotiating position for the renewal of the UPass.

4. I will continue to be a strong voice at Council and to provide effective representation on all issues.

For a full platform/discussion, see the Facebook group "I'm Voting KASPER for Council/Senate!". RE-ELECT KASPER!

Joseph Collins

The Federation of Students represents students on a number of issues on campus. FedS Council is designed to represent each of the faculties to the people in charge of the organization, as well as to keep the students they represent in the know of what is happening. The reason I'm running is simply because, for the most part, I haven't seen that happening. I'm Joe Collins and I'll be entering 4A Software Engineering in May. My platform may be a simple one, but it's one that I've only seen 1 of our 5 councillors do in the past year. I will, if elected, do what I can to keep math students up to date on what FedS is doing, and take any feedback I receive directly to those in charge. I will bring monthly (biweekly where possible) FedS updates to mathNEWS over my term, as well hold regular office hours in MathSoc so that you can easily pass on your thoughts and suggestions. Anyone who knows me knows that I consistently relay information to those who I represent. SE students see it as I represent them to MathSoc. Math students saw it as I covered MathSoc elections in mathNEWS. And if I promise you nothing else, I promise that you will also see it if I can represent you to FedS. Each and every math student deserves to have their voice heard on FedS. Please visit http://collins4feds.blogspot.com to learn more about me and to ask me your questions.

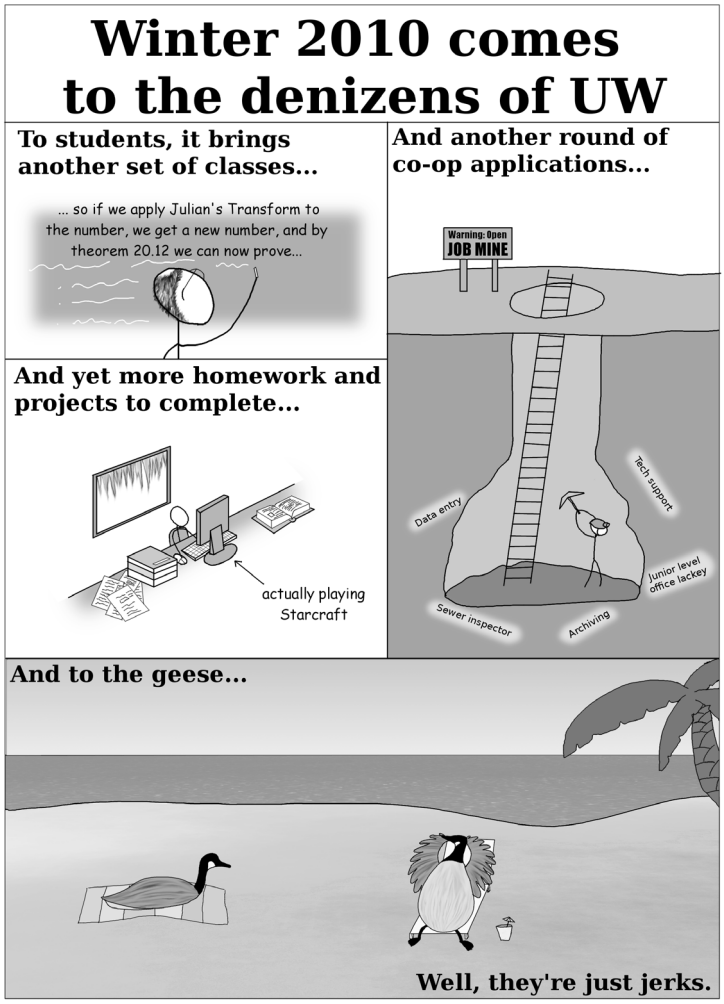
Prashant "Kumar" Patel

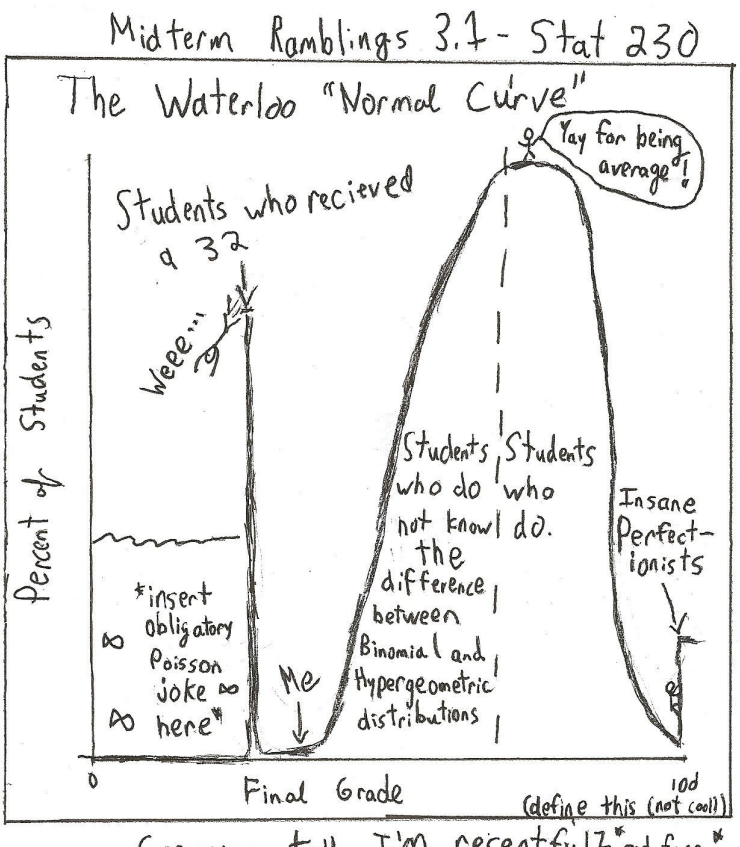
This person was not available for comment.

Piraveena Thamalingam

Do you ever wonder who votes on new Feds changes? Do you ever wonder if you have a say in what's happening in Feds? Do you WANT TO KNOW? The name is Piraveena Tharmalingam and I would like to be one of your Feds Math Councilors to keep you informed. I'm an experienced student leader who wants to let you know (yes YOU) that I am committed to strengthening the relationship between math students and the Federation of Students. Your opinions count and they DO have power. As current VPA of MathSoc, I know the ins and outs of the Math Faculty and believe that my extensive involvement in student life will get your opinions to the right people at the RIGHT time. Check me out on Facebook for my campaign platform and keep an eye out for some things that make you smile :P Put your trust in ... EXPERIENCE, PASSION, KNOWLEDGE. Vote PIRAVEENA as your Feds Math Councilor.

Now for something entirely different...





... and now back to mathNEWS

News From Off Campus

Here is a selection of interesting news stories from off campus. As always, if you see any important or interesting stories that you want featured, send me a tweet @mN_InsideR.

Health Canada Considers Adding Cancer Fighter to Junk Food

Health Canada is proposing an interesting idea: allowing food manufacturers to add a cancer-fighting drug to fast food.

Acrylamide is a substance that is accidentally created when starchy foods, from potato chips to bread, are cooked at high temperatures, though it is found in higher quantities in fried potato products, such as fries and chips. The substance has been linked to cancer in lab rats and mice, but studies have been unsuccessful in linking the chemical to cancer in humans.

Research has suggested that asparaginase can reduce the production of acrylamide during cooking, and Health Canada is considering allowing food manufacturers to add small amounts of it to their products. The government health agency has done a review of the chemical and has found no health concerns.

Health Canada is asking for public comments on the issue until February 21st at `www.healthcanada.ca`.

Cyber Attack May Cause Google to Leave China

A sophisticated attack originating from China targeting the email accounts of human rights activists has led Google to announce that it may shut down its operations in the country.

While Google did not directly blame the Chinese government for the security breach, the search engine announced that it is no longer willing to censor its search results on its Chinese service. Google agreed to censor some of its results when entering the Chinese market in 2006, such as the 1989 Tiananmen Square protests and Tibet independence movement, as required by the government. Now it will try to work with Chinese authorities to see if running an uncensored search engine within the law is possible.

Google said that the email accounts of two human rights activists were accessed, however the hackers were only able to see subject lines and account creation dates, not the actual contents of the emails. It had also discovered that the accounts of dozens of Chinese, American and European activists have been routinely accessed by third parties. It was later found that a vulnerability in Microsoft's Internet Explorer 6 likely played a role in the breach.

This controversy has sparked a row between the American and Chinese governments. Chinese Foreign Ministry spokeswoman Jiang Yu has said foreign companies are welcome to do business in the country as long as their laws and traditions are obeyed. US Secretary of State Hillary Clinton is calling on China to lift its censorship restrictions and allow for free access to the Internet, criticisms the Chinese say are groundless.

In an unrelated attack two weeks ago, Chinese search engine Baidu, which has approximately twice the market share as Google, had their Domain Name Service entry attacked by a group claiming to be the "Iranian Cyber Army". The DNS entry, which essentially acts as a telephone book for the Internet, redirected users to a website displaying a political message. This is the same group that attacked Twitter last December.

France, Germany Urge Users to Stop Using Internet Explorer

French and German officials are asking citizens to find an alternative to Microsoft's web browser after malicious code was published online. This code is believed to have contributed to an attack against the Gmail accounts of human rights activists last week.

Microsoft, however, says that Internet Explorer 8 is "the most secure browser on the market", and those with previous versions of the browser should upgrade. They say that they have only seen malicious code that attacked Internet Explorer 6, which is still used by 10-15% of users. Users of IE6 who visit malicious websites can be infected with a "trojan horse", which would allow an attacker to take over their computers.

After the attack on Google, Germany's Federal Office for Information Security and France's Certa Agency are encouraging users to switch to another browser such as Mozilla Firefox or Google Chrome. A report from security firm NSS labs, however, reportedly shows that IE8 provided better security against phishing and malware than other browsers.

While switching away from IE may solve this particular problem, it needs to be noted that every Internet browser will have some sort of security vulnerability. Microsoft has since released a patch that reportedly resolves these security issues.

InsideR
with files from CTV News and BBC News

Have Your Say

Is Google justified in its threats to leave China? Should the US Government be involved in this ordeal? Is Google bitter that it's not the #1 search engine in China, as suggested by rival Baidu? Send me your thoughts at `http://www.twitter.com/mN_InsideR`. Your comments may be published in our next issue.

Orientation Week!

Hey Mathies!

Want a way to meet new people, gain leadership skills, improve your organizational skills, and just be awesome*? Math Orientation 2010 is now taking applications! Apply today at: http://orientation.math.uwaterloo.ca

We are looking for people just like YOU to make Orientation 2010 the best Orientation week ever!

Have questions? Feel free to email us at orientat@student.math.uwaterloo.ca.

Patrick, Julianne, Abhishek, Maria
Math Orientation Directors
University of Waterloo
orientat@math.uwaterloo.ca

*awesomeness covers the aforementioned improvements/gains and much, much more!

UW Capital Markets Group

(`http://capitalmarkets.uwaterloo.ca`)

The UW Capital Markets Group is a new club on campus that promotes career opportunities in the financial industry to the UW student population, and better positions our members for these opportunities through club events. Membership in the UW Capital Markets Group is FREE. To become a member, please email us at UW.Capital.Markets@gmail.com with your name, student ID, program, and year of study.

Door Opening Protocol

It has become painfully obvious to me that people are not opening doors properly. What follows here is an attempt to draft a definitive protocol on exactly how one should open doors.

1. If somebody is immediately behind you, you should hold the door open.

2. When opening a door, you may choose to pass through the door and hold it open behind you, or open it for the other person to pass through first.

3. When allowing the other person to walk through the doorway first, you should step back 8.512 attoparsecs and pause for 5.29 microfortnights (with an acceptable error of +/- 0.002%), to ensure there is no ambiguity about who will go through first.

4. If somebody is 10.091 light-nanoseconds behind you, it is considered polite to wait and hold the door open for you. If the distance is greater than 10.091 light-nanoseconds, it is acceptable to ignore the person and not hold the door open.

5. If the person is carrying an object with mass in excess of 0.623 slugs or volume in excess of 3141.59 barn-megaparsecs, the distance is automatically extended to 26.39 light-nanoseconds

I hope that in following these protocols, people will be able to efficiently open doors for each other without resulting in any more confusion.

!BoB

Oh, I See A Thorn!

*<hr>([\s\S]*wrong[\s\S]*) |(<form [\s\S]*?(|</form>))|(<pre> [\s\S]*</pre>)*

- One of the labs on the 2nd floor of MC has lost a significant number of thin clients. Instead, the clients have been replaced with "network workstations" (empty desks with ethernet cables sticking out from holes in them that allow you to have a wired connection to uw-wireless).

- The WatCard Account History form contains a regex in a **"hidden"** field.

- In four years, the *math*NEWS production system (written in Perl 4) will be older than the first-years writing articles using it.

- In Fall 2010, the SoftEng Frosh will need to be introduced to the pink traditions and chants of the math faculty, after going through their purely EngFOC-managed orientation week.

- The Save button in the *math*NEWS web-based production system doesn't always work. Make sure you have a backup in another text editor!

cbhllhbc

BlackWhite

In the study of infinite series, an intriguing mathematical anomaly comes up:

0 = 0 + 0 + 0 + 0 + 0 + 0 + ...

Which can be rewritten as:

0 = (1-1) + (1-1) + (1-1) + (1-1) + (1-1) + ...

0 = 1 -1 + 1 -1 + 1 -1 + 1 -1 + 1 -1 + ...

0 = 1 + (-1 + 1) + (-1 + 1) + (-1 + 1) + (-1 + 1) + ...

0 = 1 + 0 + 0 + 0 + 0 + 0 + 0 + ...

0 = 1

With this startling revelation, this poses many fundamental questions to many simple math problems and basic computer problems. If the above expression holds true, all of Boolean algebra (and in turn all of computing) is called into question. Does 1 show the value of True, or False? When you write the code

```
do {
n = 1;
printf ("%d", n);
}
while (0 != n)
```

What will get printed? But this ethical conundrum can reach even beyond the most low-level programming, encompassing the hardware itself. Digital circuits work as a series of On/Off switches, which return a value of 1 (On/True) or 0 (Off/False). Computer hardware relies on processing this series of 1's and 0's in order to compile machine code, which in turn makes processing languages, which are used to create everything that a computer uses in order to function, including the program that the writers use in order to create the lovely article that you are reading right now.

The problem is a grave one, and it only leads one to wonder how people have been able to live with computers that suffer from this anomaly.

!e

News from WiM U-Grad

The "Women in Math Undergraduate Committe" has been in full effect officially this term starting Wednesday January 13, 2010 when the Winter '10 elections took place. The Co-Chairs Alex and Ritika held a friendly, yet very professional election and the executives were appointed as follows:

VP Internal - Aimee and Nicole
VP Marketing - Linda
VP Communications - Megha
VP Administration - Emily

WiM kicked off the winter term with the memorable "WiM Beer and Wings Night." With over eighty students attending, it was a big success. The basement was booked at Morty's for the "WiM Beer and Wings Night" and students of all ages enjoyed free soft drinks and wings with some interesting music.

Our upcoming event is the "Beach Party," which amongst other interesting events will include a swimsuit competition! Stay tuned for more details by joining our mailing list at `wimugrad@gmail.com` or find us on Facebook by searching "Women in Math of UW (Undergrad)."

So... You Have A New Computer...

But your laptop doesn't have a CD/DVD burner! What do you do? You want to dual-boot Windows and Ubuntu Linux on your new computer, but unless you can burn your ISO from MSDN-AA, you can't even begin to think about installing Windows. Don't panic, you have a 1GB or larger usb stick which you can format, and your laptop already dual-boots Windows and Ubuntu Linux. So, what do you do?

What You Happen to Have:

- New PC with CD/DVD burner and no operating system
- Laptop with USB port(s), dual-boots Windows and Ubuntu Linux
- 1GB or larger USB key (preferably empty)
- CD-Rs and/or DVD+/-Rs as required (at least two)
- Internet and MSDN-AA access.
- Ethernet cable (optional, but preferred)

Plan of Attack

1. You will probably want to do this on a weekend, when you have time to be downloading and burning ISOs and waiting through OS installations. Gather the materials and wait for the weekend.
2. Start by booting the laptop into Windows.
3. Download the Windows ISO of your choice from MSDN-AA, or via some other legal means. (e.g. Online purchase from Microsoft's website.) Place the completed and downloaded ISO in a location where you will be able to access it from your new PC — this may be, for example, an external hard drive (OTHER than the USB key specified above).
4. Reboot your laptop into Ubuntu Linux. Hopefully it is running 8.10 or a more recent version, so that you can use the *USB Startup Disk Creator* tool that comes with it.
5. Download a recent Ubuntu Linux Desktop CD ISO of your choice from a local mirror. The CS Club seems to host a mirror at: `http://mirror.csclub.uwaterloo.ca/ubuntu-releases/` so if you're on campus that might be a good place to grab your ISO.
6. Open the *USB Startup Disk Creator* in the *System -> Administration menu*.
7. Click Other... and select your Ubuntu Linux Desktop CD ISO image.
8. Plug in your USB key into your laptop.
9. Select your USB key from the list that appears. While you're at it, select *Discarded on shutdown*, since you probably won't need to use the USB key long enough to be saving work on it.
10. Select the *Make Startup Disk* button and wait.
11. Once done, you can now shutdown the laptop. Unless, of course, you are going to get your Windows ISO from your laptop over the network, in which case you will want to eject/unmount the USB key, and then perform whatever voodoo (restarting into Windows?) is necessary to make your ISO available to your new PC.
12. Plug the USB key (which you made into a Linux "Startup Disk") into the PC.
13. Boot the PC from the USB key. (This may require changing BIOS settings or funny keystrokes on certain PCs — often pressing F1, F8, F12, Backspace, Del, Enter, or Esc during startup will trigger a special sequence that will let you configure this.)
14. Select the *Try Ubuntu...* option.
15. Once loaded, obtain your ISO from your storage method of choice (e.g. external hard disk). If necessary, use the ethernet cable to connect to the local network so that you can obtain it from your other PC (or look up instructions on how to mount CIFS/SMB shares in Ubuntu).
16. Use the tools in the Ubuntu live session to burn your Windows ISO to a CD/DVD using your new PC's CD/DVD burner.
17. Once done, reboot the computer, removing the USB key. Boot from your Windows installation media and install Windows as usual.
18. Once Windows is installed, feel free to install Ubuntu Linux using your method of choice. (For example, actually burning the ISO onto a CD/DVD from Windows, using your newfangled USB "startup disk", netboot, wubi, whatever. Although if you insist on using Wubi, know that a improper shutdown can cause BOTH your Windows AND your Linux filesystems to become corrupted, so you are better off with a real partitioned installation.)
19. Rejoyce, for now you have two more weekends worth of tweaking, application installation, and homework to do. But at least now your new PC has dual-boot Window and Linux working on it. Maybe. If not, hopefully you can fix the problems your laptop's developed in the last ten hours.

!able

Midnight Capture the Flag

We are definitely not feeling terribly sorry for the solitary guy who showed up to play last time. He definitely was not feeling completely distraught and disappointed. Therefore, there will definitely not be another attempt to play on **Sunday February 7**. The time to show up will definitely not be **just before midnight**. As for "sarcastic" negatives, we definitely have no clue what the poor soul is talking about.

Not The Management

Start Your Work Reports Early: MUO

Increased extension requests may mean new work report guidelines

In response to increased numbers of students requesting extensions on their work reports for lack of employer evaluations, the Math Undergrad Office is now encouraging students to get started on their work reports earlier in their work terms.

Arnie Dyck, the faculty's Associate Dean for Co-op Studies, tells me that these extensions make it difficult for the faculty to get these reports back to students on time. He said that this causes particular problems for students whose work reports are deemed unsatisfactory, as it does not give them sufficient time to make the necessary corrections and resubmit.

Work reports in Math are evaluated in part by the university, which evaluates presentation and critical thinking, and employers, who evaluate the technical aspects of the report. The Faculty's current work report guidelines say that, if students do not have their employer evaluation by the seventh day of class (when the reports themselves are due), they can get a receipt issued for their report and submit the report and evaluation within two weeks of the due date. However, the website was recently marked as "under construction", which means that changes to these guidelines are possible.

We asked Dyck if changes were coming to the work report guidelines, but he did not respond to our email as of press time.

Some students were caught off guard when the Faculty changed the Winter Due Dates website for work reports on January 11th. A cached version of the page from December showed that employer evaluations were due on January 26th, however the new page listed the due date as being on January 12th, a single day after the new page went up. Mayur Khatri, a student in Computation & Financial Management, told me that she never received an email telling her about the change, and called it "a pretty sneaky move" to change the due date last minute.

Dyck says that the MUO sent an email to all students due to submit a work report encouraging them to start early to prevent these problems. As well, since the Cooperative Education Council is planning campus-wide policies for work report submissions, students need to take necessary steps so that employer evaluations can be completed before returning to campus.

InsideR
Twitter: @mN_InsideR

Geese conspiracy

Many of you have noticed the large amount of geese around campus recently. This may seem normal, until you realize that geese are supposed to migrate in the winter. What then, is the reason for their constant presence?

If anyone would take time to notice the jerky, machine-like movements they make, it would be noticed quickly that they are, in fact, robots, machines programmed with only one purpose: to convince people to buy merchandise from the Waterloo gift shop.

This feat is accomplished in a clever way. The preprogrammed geese are sent to places that will disrupt the flow of people in a probabilistic way as to direct a significant number of them toward the gift shop against their will. The robot geese have several operational modes of accomplishing this, which include hissing and defecation.

There exists a similar situation with the chipmunks on campus, however there are only a small percent of them that are robotic, and anyone with a trained eye can spot the difference.

Excerpts from the Not-So-Secret Conversations of the Off-Stream *math*NEWS Editor and Friends

with his Faux Electrical Tape Moustache

- I don't write *math*NEWS articles, I write Regular Expressions that write my *math*NEWS articles for me.
- Perl PIE are flags that you pass to perl to make it really similar to sed. This lets you replace strings in the files in a folder really quickly. `perl -pi -e '<regex>' <files>`
- In my spare time, I hook up with my ex. It's easier than finding a new girl.
- *(On a four-page article titled "Why Engineers Should Care About Functional Programming")* We can't publish this; we have a 22-page *math*NEWS!
- There was an article a few years ago, about... <censored>
- I asked for Meat and Cheese in a 2:3 ratio such that the total comes to $10. Should not be hard.
- I wish people were more like computers. Easily commanded.
- The *math*NEWS editor whip! Work harder, writers! Harder!

cbhllhbc

Bioterrorism via Purell

Most people think of Purell as something that kills germs. But imagine what would happen if it was used as a method of spreading bioterror agents? If someone replaced the sanitizer with germ infested goop, the people who obsessively used Purell and have deficient immune systems would now also have handfulls of plague. It's only a matter of time. Be paranoid. Stay away from sanitizers.

(anoia, anoia)

Interesting Math

Benford's Law

In this issue, I will discuss an interesting phenomenon that came up when I took STAT240, known as Benford's Law. In a "random" list of numbers from real-life sources of data, the leading digit (1-9) is distributed in a particular, non-uniform manner: The digits 1 through 9 will occur as a leading digit about 30.1%, 17.6%, 12.5%, 9.7%, 7.9%, 6.7%, 5.8%, 5.1%, and 4.6% of the time, respectively. This is a very surprising result if you do not know the mathematics behind it. For example, try picking up a newspaper and flip to the stock market prices. If you have a large sample, you will find that the distribution is very close to this. Also quite peculiar is the invariance under "units". Taking those prices and converting into a different currency should leave the distribution approximately the same.

So why does this happen? This may seem more clear if the logarithms of the numbers are uniformly distributed, such as when the numbers grow exponentially. Lots of real-life data, like stock prices, turn out to have this uniform distribution of logarithms as well. For example, suppose we have a stock that doubles every year (unlikely, but it is an illuminating example). Starting with 1000, the leading digit will be 1 for a year, becoming 2000 just at the end. The next year, the value doubles from 2000 to 4000, and the leading digit will be 2 for around seven months, then it will be 3 for the remaining five months. The following year, the leading digit moves through 4 through 7, with each digit appearing for shorter and shorter amounts of time. This is an intuitive explanation of the decreasing distribution.

We can explain the invariance property intuitively as well: suppose the currency exchange rate is 2 to 1. To get a 1 as a leading digit by multiplying by 2, we must have a leading digit of 5, 6, 7, 8, or 9 (I'm cheating a little, but this is approximately right). Then the probability that the first digit is 1 in the second currency unit must be the same as the probability of a 5, 6, 7, 8, or 9 occuring as the leading digit in the original currency. You may notice $7.9 + 6.7 + 5.8 + 5.1 + 4.6 = 30.1$, as our intuition says. We can apply this logic to all the digits, using the fact that $\log_{10}(1) = 0$ and $\log_{10}(10) = 1$, to get the same distribution of leading digits.

Mathematically, we are simply looking at the probability ("length of space", if you don't know any measure theory) of the logarithm of a number lying between a digit d and $d + 1$, which is simply given by $\log_{10}(d + 1) - \log_{10}(d) = \log_{10}((d + 1)/d)$. If you try out $d = 1$ through 9, you will discover the above distribution is given by this equation.

Of course, we may generalize to working in base b and finding the probability of the leading digit being d, for $d = 1$ through $b - 1$, and similarly get the probability as being $\log_b((d + 1)/d)$. Another possible generalization deals with the number of digits considered, rather than simply the leading digit. We get an almost identical equation, $\log_b((n + 1)/n)$, where now n is the number representing the string of digits under consideration. For example, if we wanted 3, 1, 4, 1, as the first through forth digits respectively, we use $n = 3141$. Notice this equation can be combined in various ways to find more complex probabilities, such as the distribution of the second (and not the first) digit.

Vince's problem of the issue

Two equally skilled players are playing a game of chance: flipping a fair coin, with heads as a win for one player and tails as a win for the other, per round. Each round they win nets them one point, and the overall game is played to 10 points. I say "equally skilled" to mean they have the same chance of winning the overall game. Suppose they are interrupted part way through, and you are given that the current score is 8 points to 7. How should the stakes be divided to be fair?

Vince Chan
v2chan@math.uwaterloo.ca

The Soap Protocol

(not Simple Object Access)

I have a problem, and it involves soap. More specifically, my soap; not the sinkside bathroom soap, or bottled liquid soap but a good old bar of shower soap that spends its life sitting in a bathroom alcove.

My understanding is that, when living with roommates, there tends to be certain household consumables. For example, toilet paper and dish soap tend to be something you buy in bulk and share with roommates. My question is: Does a bar of soap fall under this category as a household consumable? Does the location of the soap bar matter? Is a bar of soap beside the sink different then one in the shower? Is it okay to let roomates share your shower soap?

I suppose there really is no harm in allowing soap into the household consumables category. I mean, one would assume that soap is clean and pretty sterile. Sure, it may be a little unnerving to envision roomates using your soap, but they can't really taint the soap, can they? What about if the soap is returned all hairy after use?

What I suppose is the most difficult question is what to do with hairy soap once you get it. What is the soap protocol?

theAnyKey();

Thor's CS Problem of the Fortnight

Doing my little turn on the catwalk of Computer Science

Last Fortnight's Question: You are developing an AI for bumper cars, a popular ride at amusement parks (children drive cars around and crash into each other). As part of your AI, you would like to monitor the movements of all of the cars in the game, to predict future movements. Assume that you have access to the position and velocity vectors of all of the participants. Use a line segment to represent the positions of each car over the next three seconds. How can you predict which cars will bump into each other in that time frame? Phrased another way, how can you find all of the intersection points of a group of line segments?

Its Answer: Finding the intersection points of a group of line segments is a well-understood problem in computational geometry. Planar sweep algorithms are frequently employed for this computation. We keep track of intersection changes as we sweep a vertical line from left to right over the data. At the start, our vertical line intersects nothing, but as we move it, it encounters three different state changes: insertions, deletions, and intersections. An insertion is when the leftmost point of a line segment is encountered, a deletion is when the rightmost segment is encountered. Between these two points, the line segment is said to be "active" and ready for intersection. Intersections occur when two active line segments cross. These are made easier to locate if we keep the list of active line segments sorted from top to bottom (largest y coordinate to smallest y coordinate of their intersection with the sweep line). If this property is maintained, the next intersection is always going to happen between two neighbouring segments in our list, simplifying our task greatly.

This Fortnight's Question: In the popular city simulation game Sim City, you often find yourself needing to connect up parts of your city via power lines. Let us study a generalized version of this problem. Let's say you've got five different areas of your city that are unpowered, and you need to connect them together with lines. Power lines cost money, so you want to connect these points as cheaply as possible. Remember that you're not just limited to straight lines between any two parts of your city, though. You can add junction points wherever you want, where a line splits in two (Sim City's power lines aren't advanced enough to be curved). You want to minimize your cost of power lines, but still power your whole city. How can you determine an optimal power line layout? As an abstract representation, let each part of the city to power be represented by a dot. Your job is to connect all of these dots together with straight lines (one of the dots is the power plant) in a way that minimizes cost (length of line). You can also add dots wherever you'd like, to keep expenses down.

Thor

Looking for a way to give your face some punctuation?

three things to do with that growth you normally shave off

Though so fundamentally different, men and women have much in common. We both eat, drink, and some of us can grow beards. Admittedly, there is a larger ratio of men than women who are able to do so, but we at *math*NEWS do not discriminate. As such, the below article applies to women and men alike.

As the winter wears on, we as University of Waterloo students continue to be tested for our innovative spirit in terms of defense against the cold and bitter wind (or rain). We buy socks and scarves, boots and coats, mittens and kittens, and - heaven forbid - pants. Oh, the outrage! The horror! Why spend all this money on silly things like kittens and pants when there are a number of readily available all-natural solutions?

1.**Flapwings**: Ever wish you could fly? Wish you could touch the sky? Do you think about it every night and day? Of spreading your mustache and flapping away? Now you can! Complete with thick, bushy face-tails, and sideburns to spare, Flapwings offer a classy alternative to the traditional beard scoring well above expected with the ladies*. This style also features a bare chin for breathability and ease of transition from winter to spring.

2.**Unix Beard**: For the comfy-gnome who doesn't take advantage of the electric plug in the men's washroom on the 3rd floor of MC (women are excused). For the hapless MC hobo who has forgotten the feel of fresh air on his/her cheeks. For the mathie whose last term's exam beard is now just a beard. We have a "solution": the Unix Beard. This option requires absolutely no upkeep, rendering this the perfect style for the man or woman on the go!

3.**Chin-Muffler**: Do your cheeks often sweat? YES? That's disgusting! You should probably go have that checked out... Honestly, I can't even look at you right now. Go wiki chin-muffler yourself.

These do not: frogger stash, soul patch, Hitler stash, etc. The three above enumerated styles are guaranteed** to keep you nice and toasty this winter. Still not convinced? Then, you're not doing it right! Don't like toast? Well, I can't very well be expected to do anything about that, or to even care.

(wo)manscaping my way to warmth
prime8(+1?)

*expected votes - 0, recevied - 1+0, oops, she was just stretching her arms...
**not actually guaranteed

Alternate methods of payment

For when money and.. other alternate payments don't work

So you owe someone. Or someone owes you. Hopefully legs have yet to be broken. Either way, you need something to fix this debt in some way that does not involve money. You've wracked your brain for alternate payment, but you haven't thought of something. *math*NEWS is here to help! Here are some "interesting" alternate payment methods:

- Maple Syrup: This is Canada. Maple syrup is always a legitimate method of payment.
- Top Hats: I would gladly except top hats in favour of payments, and 2 out of 5 dentists would agree I'm a sane individual. Logically (Note: I failed logic) this means Top hats are accepted as payment in general.

Sector Corrupt

Happy Winter-een-mas!

First of all, I need to tell you that the keyboard I am using has no working space bar, and therefore this has all been written using copy/paste for all spaces. This is a very lengthy process, so you had better appreciate my work.

Okay, so now that has been explained I would like to wish everyone a happy Winter-een-mas! For those who aren't familiar with this most wonderful of holidays, it is a celebration of gaming which originated on the webcomic Ctrl+Alt+Del. It is a time to share the joys of gaming, a full week for people of all ages (and by all ages I mean mostly people between the ages of 15 and about 25) to come together and virtually beat each other to a pulp. Unfortunately, you will only read this on Friday, after the majority of Winter-een-mas has already passed by, however do despair for you still have all weekend to develop carpal tunnel syndrome (that's everyone's goal in life, right?). Here are some tips to maximize your gaming experience this weekend:

1. Dump your significant other. Their nagging and demands for attention will only slow you down, and let's be honest, video games are better than real people anyway.

2. Place your modem on the floor. Everyone knows because information travels faster downhill.

3. Who needs sleep?

4. Prioritize your gaming to make sure you get enough time on your favourite games. I know I'll be starting with My Little Pony and E.T. You know, the classics.

5. Now I'm not saying you should totally abandon all your schoolwork or anything, but... wait, that is actually what I'm saying

6. Finally, sell your roommate's stuff (and, if need be, your roommate too) to buy the best video card on the face of the earth.

Well, any way you choose to do it, have a happy, game-filled weekend. Actually, I'm confused, and a bit disgusted, about why you're still reading this. Start gaming already!

Robocon

Unnatural History

Computer Science Club

I have been told that in far away days
A student society of keenest minds
Did meet over at that school down the ways.
In nineteen thirty six they made some finds
Of Church and Turing, and of like papers.
The gathering grew, attracting all kinds.
Then a new school rose, giving them vapors
The switch was made, then an event most dire
Calum T. Dalek, reports his capers
The club's pre-history, lost in a fire.
The club began anew, right from the blaze
And all that's the truth, I'm not a liar.
Once again, I have distilled from the haze
And ancient tale of the good old days.

The Unnatural Historian

WhenElse

8 Years From Now in math*NEWS*

Every once in a while *math*NEWS feels the need to resort to violence to get its point across. In rare occasions, we even publicly advertise this. In the rarest of occasions, this even works. I mean, can you even think of a situation that could not be made more awesome with the inclusion of hired goons? I thought not.

We can honestly say that this approach has resulted in us having a larger office, larger staff, and many other larger things as well. So what if there were a few bodies along the way, that's just progress. Not that it will help us much when the cyber-raptors come.

Now it is time to look at Volume 134, Issue 2 + 3i, which will originally be published on the 32nd of Pentember 2018.

Hired Goons

Hired FoodGoons?

Attention all Waterloo students. Do you want to travel the worlds, see the only slightly radioactive ruins of beautiful cities, and rough people up a bit? Well then, that's good, because if you don't start running soon the cyber-raptors will get you. ProblemBeGone.com is looking for students at all levels to run for their lives and attempt to rebuild civilization after the impending raptocalypse. Tasks will include running, screaming, trying to survive the nuclear fallout from last year's nuclear holocaust, and scavenging for food. They're looking for motivated, task-oriented survivors who are willing to go the extra mile to get the job done, and accept a semi-benevolent dictatorship. Flex hours, provided you work at least 168 per week. Casual dress. The ideal candidate will have a dark and shadowy past and be followed by the voice of the narrator, increasing likelihood of survival. Please bring references and several litres of electro-barbecue sauce to the hidden laboratory in the basement of EIT.

—image

Interesting things to do with Imprint

I know, you think I'm crazy, I am, as evidenced by the signature at the bottom of the article. No, this will have nothing to do with floor tiles.

- Staple the stacks of them together, so there's a chain of then the follows anyone who lifts the first one up.

- Kindling, in case of Day-After-Tomorrow like scenarios.

- Wallpaper an arts building with them. The artsies would enjoy it, we'd get to laugh at them for doing so, and there would be less imprints lying around.

- Boot trays, cause salty slush puddles on carpets suck.

- Rolling cigarettes. Fill them with poison ivy for an extra kick

- Paper machier tributes to *math*NEWS

- Rolled up newspaper duels

!case

profQUOTES

Five unknowns in five equations. That's like a whole course they do down at Laurier.

Eden MATH 136

Why don't we want fractions? Go on, you can say it, 'because sir, we suck at fractions.'

Eden MATH 136

It's very complicated. They don't do this in engineering. Make sure you follow this.

Eden MATH 136

Prof: The answer is A.
Class: [lots of sudden whispering]
Prof: I mean B! Oh my gorsh, I'm losing it, I'm really losing it. I need a nap.

Bissonnette CHEM 123

I was wondering where that diagram went. It's like finding a treasure!

Bissonnette CHEM 123

I don't care how you remember this; tattoo it on the back of your eyelids. Not recommended.

Bissonnette CHEM 123

[sarcastically] An eighth times eight is ugh... umm... I don't have my calculator! I think it's one.

Bissonnette CHEM 123

There's a half-hour summary of differential geometry for you! Now you can save $600 on another course.

Hewitt AMATH 475

If you're gonna go and become a string theorist, you'd better have a side job making t-shirts with strings on them or something.

Hewitt AMATH 475

Student: I'm having some trouble visualizing this.
Prof: Join the club.

Hewitt AMATH 475

I heard there's a tribe in the amazon that cannot count larger than three. I'm tempted to make a remark about physics students at Waterloo...

Mann PHYS 444

By arithmetic, and by that I mean calculus, we see that...

Mann PHYS 444

We C&O guys are the ones who **really** know how Dijkstra's algorithm works. The CS guys are fringing on our territory.

Harvey CO 351

I'm the one with the chalk in my hand so I can define whatever I want.

Godsil CO 634

We won't prove this just yet, but it's true. As my friend used to say, "trust me, I'm a doctor".

Godsil CO 634

It's not a good idea to sit in to talks above the level of your background because ... it can be upsetting.

Cheriyan CO 754

Set! is not your friend. But sometimes in life you will need to borrow money from loan sharks, and sometimes you will need to use !

Cormack CS 136

I basically look at the help stuff.

Zhu STAT 241

If you're afraid of Greek letters, run away.

Ragde CS 442

I sat in the back of [another] class... you were all playing video games as I recall.

Ragde CS 442

We have multiple levels of hacking, so now we have lists.

Ragde CS 442

In the style of Computer Science, lets just try something! It will segfault.

Ragde CS 442

The Y combinator is so cool it hurts.
You should not be able to see the Y combinator.
Chuck Norris wishes he was the Y combinator.

Ragde CS 442

So we have a system of linear equations... we're not going to use linear algebra to solve it because nobody likes MATH 115.

Roh MATH 119

If you want to look at those formulas, you can go ahead and have your brain explode. I personally prefer to have my brain in my head and not splattered across the room.

Roh MATH 119

For all you know, maybe the guy who did this experiment was drunk and gave you a bad value that screwed up your polynomial.

Roh MATH 119

Prof: What's the derivative of tan x?
Student: $\sec^2 x$
Prof: OK, so one person paid attention to MATH 117!

Roh MATH 119

So you can represent your error as a nice integral. Except that it's impossible to solve.

Roh MATH 119

I don't think you want a recursive error.

Roh MATH 119

I don't like integrals... whoops! Probably shouldn't say that in a calc class.

Roh MATH 119

Please make sure your assignments have your name, ID number,

profQUOTES

and Swiss bank account number.

Roh MATH 119

This isn't voodoo, right? I didn't take out a voodoo doll and poke it, and then [the Taylor polynomial] came out.

Roh MATH 119

If you guys don't understand this, then I can't play WoW.

Roh MATH 119

Prof: What's the second derivative?
Student: Ugly!
Prof: (writes f''(x) = BLAH and f'''(x) = KILL ME)

Roh MATH 119

Let's try the 100th degree. We get a nice small 2.5... that's not too bad... times 10^{30}. Uh oh.

Roh MATH 119

I told you I'm ampersand-impaired, right?

Godfrey CS 138

Programmers are all lazy SOBs who keep looking for shortcuts because they don't want to type as much.

Godfrey CS 138

It's an infinite loop. It'll eventually crash and then blood will spurt from your nose.

Godfrey CS 138

["g" is "f"] for very large values of "f."

Godfrey CS 138

It would be nice to throw out an error like the example at the now-erased board.

Godfrey CS 138

There's a famous quote — which I didn't make up — "Pre-optimized code is the root of all evil."

Godfrey CS 138

Where was my brain? I don't know — not in this room.

Godfrey CS 138

You can tell I'm getting serious since I have my shirt untucked.

Godfrey CS 138

Last day, I was dangerously under-caffeinated, so I made a few mistakes.

Godfrey CS 138

= only works if you pass it numbers. Otherwise it'll vomit copious amounts of error messages and make you feel guilty.

Godfrey CS 138

Redundancy is good... and redundancy is good.

Godfrey CS 138

(student's phone rings) My life has a soundtrack.

Godfrey CS 138

Prof: (on going from C to C++) It's like going from a moped to a jet. It's cooler, faster, but you have a lot more to worry about, but there's an autopilot.
Student: But you can fly now!
Prof: And crash and blow up.

Godfrey CS 138

Prof: What's an example of a good that doesn't have a market value?
Student: Human life.
Prof: What would you be trading human life for?!

Fatima ECON 102

Why are you laughing? I don't think the Consumer Price Index is that funny.

Fatima ECON 102

If you haven't had a sexual experience modify consciousness yet... I'm sorry.

Burris PSYCH 231

It appears the last lecture was done with a chisel on the blackboard.

Haxell MATH 135

I guess it's easier for two-toed sloths to learn their multiplication tables in base four than it is for us.

Haxell MATH 135

Then that would result in a breakdown of the entire universe. Which, so far as we know, has not happened yet.

Haxell MATH 135

This contradicts a very important theorem, which I am now erasing.

Haxell MATH 135

That [calculation] could take the rest of your life... or the life of the planet.

Haxell MATH 135

If you want to know what that number is, I multiplied it out once, and it was apparently 315.

Haxell MATH 135

Is there a function F(n) that will return prime numbers for all n? You could write F(n) = 3, but that wouldn't be very useful.

Haxell MATH 135

The computers of 1600 were not up to the task [of calculating the fifth Fermat number].

Haxell MATH 135

[on error in powerpoint slides]
In electrostatics there is a security alert in the Maxwell equations.

L?tkenhaus PHYS 441B

Sociological Mathematics

This Week: Group Theory

Many people (wrongly) believe that the realm of Pure Mathematics is in no way relevant to everyday life. However, as the following excerpt from a paper published in the International Journal of Serious Business demonstrates, it is becoming increasingly relevant in many other disciplines, such as sociology.

Let us consider a set S containing six people: {Alice, Bryanne, Charles, Daniel, Eli, Francine}. We wish to determine the underlying group structure imposed on this set by society. When convenient, we may use A to refer to Alice, B for Bryanne, and so on.

It is left as an exercise to the reader to check that only Daniel needs to travel more than half an hour to get to and from campus; that is to say, only Daniel commutes. Therefore, Daniel must be the identity of the group. Further, as Daniel is ruggedly handsome, we know that each of the women would map themselves onto Daniel given the opportunity, and so A*A = D, B*B = D, and F*F = D. Daniel, being the identity, also maps onto himself, but we won't talk about that. Lastly, Charles and Eli don't get along very well, as they often have differing opinions about politics; that is, they are each other's inverses. Then C*E = D = E*C.

Next, we note that T = {C, D, E} is a subgroup of S. However, the first rule of subgroups is don't talk about subgroups.

Now, Alice knows that Eli has taken GEOG 165, which is a course in cartography, so when she needs to map Bryanne somewhere, she sends her to Eli who knows about maps. Then when Bryanne needs to map Francine somewhere, having heard from Alice that Eli knows about maps, she sends her to Eli also. Then A*B = B*F = E.

At this point, we have enough information that, by applying cancellation and associativity, we can determine that the group table is as follows:

*	A	B	C	D	E	F
A	D	E	F	A	B	C
B	C	D	A	B	F	E
C	B	F	E	C	D	A
D	A	B	C	D	E	F
E	F	A	D	E	C	B
F	E	C	B	F	A	D

The group operation is, obviously, obtained by creating an isomorphism between S and the group of permutations of three elements.

—Image

VPFsez

OMG we haz budget

By the time that this gets printed, MathSoc should have a nice new budget. If it doesn't then I'm probably about 5,000 km away with a few bags with dollar signs on them. Sorry about that. The budget should be up on the MathSoc website before the end next week. Now that were past that and everyone has their budgets done, I feel the need to remind everyone that Capital Improvent Fund forms and Mathletics forms are available at the MathSoc office and are due in February. (Mathletics is due by February 8th while CIF is later.)

Rami Finkelshtein

ElseWhen

7 Years Ago in math*NEWS*

The only thing that makes this article seem really strange is that after all the construction and all the changes that have happened in the time between when this article was printed and now, this somehow seems still relevant.

Now it is time to look at Volume 93, Issue 3, which was originally published on the 17th of October 2003.

A 3D Topological Safety Analysis of UW.

So, If we are in MC, then topologically speaking we remain in the MC until we step outdoors. We can follow the link to DC, down through to the Eng buildings, or to the chemistry and biology buildings. In the end, we are still in the MC. Thus without leaving the MC we can go to a number of Coffee & Donut shops, visit fancy engineering lecture rooms, look at pretty pictures on the chemistry halls, and of course enjoy neat artwork in the DC. But in the end, all the while maintaining the continuity of the MC's topological space. So come visit the MC and see all it has to offer.

Wait, this article isn't over yet.

When the fire alarm goes off in the MC, the building is evacuated. All the doors immediately slam shut and are locked. The feeble among us and those fool enough to dawdle then find themselves locked inside to perish in the deadly flames.

As of now, there is a flashing red strobe light at the entrance to the link, with a large sign warning students not to enter. It is ineffective as students blankly stare at it like moths at a flame as they cross through the link anyway.

It has been suggested that the link between MC and DC should retract into the DC, protecting the remaining buildings linked to the MC. This would create some strange results in the location of people who travelled to RCH from the math building. Though they didn't exit through a door to outside, they would expect to still be in the MC. However once the link is broken, they are suddenly outside of the MC. The entire nature of my definitions breaks down, and those people would probably disintegrate, much like the purpose of this article.

Eyal

Pokemon Encounter

Did you just send a 14 year old out into the wilderness?

=> Ash encounters a Wild Rapist
=> Ash uses Throw Rock
=> The Wild Rapist dodges
=> The Wild Rapist uses Lick
=> Ash is paralized
=> Ash attempts to run away
=> Ash could not get away
=> The Wild Rapist uses Body Slam
=> Ash blacked out …

Ash awakes in a hospital missing half of his money and a good deal of his … dignity

To be continued

The pokemon master

Mass Effect 2

And why I have beef with it

The season of awesome video games is upon us, and the clear king of the games is Mass Effect 2. By the time you get to reading this article, you have probably played the game thrice. I played Mass Effect, but the hype around Mass Effect 2 is simply ridiculous. Mass Effect 2 is definitely going to be an amazing game, but is definitely deceptively good. Think twice about being too easily sold to this game.

My first beef with the game is its advertising. Let's examine who each of the advertisements are for. The first sign we have of the game was almost a year ago (yes they at least have a decent production schedule compared to Blizzard. Thank you BioWare). Shepard is dead, and a geth is standing over him. This isn't advertised at anybody but people who played Mass Effect one. Even then, it frustrates the Mass Effect one players because it tells them nothing at all. Next we have a series of cinematic and gameplay trailers online, aiming at the market who loves the beautiful video game. That's my second favourite type of advertising. The problem with it is that instants of gameplay in trailers are deceptive. They give you a feeling of how the game will be played, but from playing Mass Effect one, I could tell that they are hiding the weak points. Give me a demo, then I will be happy with knowing the game is fun. The latest advertising? TV spots. This is simply advertising to non-gamers. This is telling me that the game is probably going to have a higher cinematic to game ratio.

My second beef with the game is its attempt to say, "We fixed all the problems with the first game!" How many problems were there? Not many. Sure, the obscene load times sucked, and yes the exploration was repetative, but really, ragging on their own game to make their new game look so much better? You must have something better than that. I have to say, releasing a game with flaws is definitely a good thing to us gamers. It means they release games on time. Which means that there will probably be equally large flaws in Mass Effect 2. But will we care? Nope.

Thirdly, the whole amazing part of the game is the choices. But now lets look at it again. How many times do you choose any path that isn't totally good or totally bad? That's right, never. Even then, looking at the first game, what was the difference in the game between good and bad paths. Oh right, cutscenes responded differently, and there was maybe one side mission different between the two. Even the most different choices (i.e. to persuade/threaten Wrex) have the exact same result. So in reality, there is no bigger game, just seperate lines of dialogue. Thanks for making me replay the game to hear all those lines of dialogue.

Lastly, let's think about when you released this game. It's about a month after Christmas, and coming just at the start of midterm season. Who benefits from this? Game producers: it's the first month of the quarter. I guess we can all hope for Valentine's Day. Which means, ladies, there are a large number of math majors looking for a girlfriend to get them Mass Effect 2.

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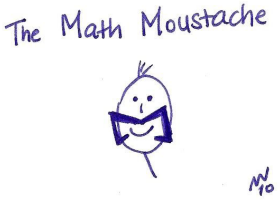


A New Drug...

There is a new drug that is increasingly being used my mathematics students. In the past, this drug was almost unknown, but recently younger and younger students have begun to use it. It started with the 3rd and 4th years, but has crept down to the lower years until some first year students have started to use it.

The symptoms are very similar for everyone who is introduced from the drug. In the beginning they are skeptical, but when they see what it can do, it suddenly becomes exciting. For a while, it is almost like a loving relationship the student has with it. The student searches for every opportunity to use it, feeling amazing whenever the chance arises. It all seems too awesome to them in the beginning. This soon becomes their downfall. It soon replaces nearly everything else they do. They become trapped in a downward spiral, using it more and more until they are doing it almost daily.

And then they hit rock bottom. They realize they are trapped in the throes of an addiction. By the time they have reached this point, it is too late for them. They will continue to use this drug for the rest of their lives, to varying degrees. It is possible for them to wean themselves off, using it very rarely in their later life, but it will never leave them entirely. Everytime they use it they will hate their life, but the need to use it will not leave.

But there is help. If you would like to help get rid of this drug, please come and sign the petition in the *math*NEWS office. Ask for petition F41L. Please help us help students.

This article has been brought to you by Students Against Taylor Polynomials

—!theNewGuy—

Ode to Facial Hair

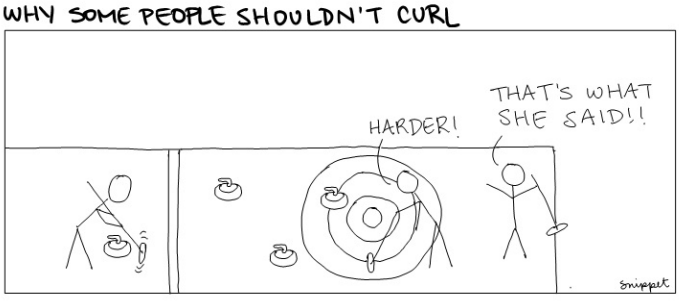
Oh facial hair between the lip and nose,
To get a well groomed moustache is a feat,
From stubble to bristle to drooping so morose.
It brings terror to everyone you meet.

Oh awesome hair between the chin and neck,
And wherever you go you will bring fear.
But do not trim it; you'll look like a wreck.
A truly mighty thing it is, the beard.

And finally the hair upon the cheek,
You will grow one and look like Wolverine.
If you don't wash it you will look a freak
Your bring pain to wherever you are seen.

Hair on the face is wonder to behold,
You wear it proud until you grow old.

—!theNewGuy—



GRIDWORD

*grid*COMMENTS

So, we only got one submission for last issue's grid. So, the winner of the prize for the first grid goes to Maros Hluska whose answer to last week's *grid*QUESTION, "What song is stuck in your head?" was, "Tiesto-Elements of Life". You can go to the MathSoc office and talk to the office workers to collect your prize.

This issue's *grid*WORD should be better, but there are two clues that I expect will give people problems. Remember to submit by putting your answer in the BLACK BOX. Remember to include your name and answer the *grid*QUESTION: What do you expect will be your undoing?

perki

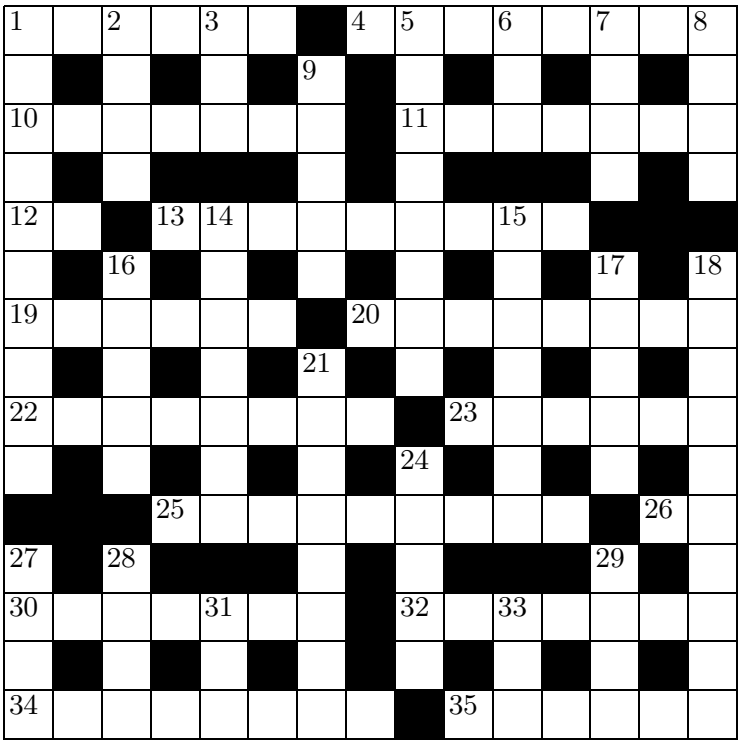
Grid Clues

Across

1. Gentle wind
4. Cruel
10. Foetid
11. Bright coloured bird
12. British military award (abbrv.)
13. Persuade
19. Put in position
20. Flourish
22. Neutral subatomic particles
23. Redevelopment option
25. Moldable
26. SciFi Wells' initials
30. Uncompromising
32. Pester
34. Fade away
35. Erase

Down

1. Charitable
2. Egress
3. Park with animals
5. Where you want to nip it
6. Wimple wearer
7. Parrot or Othello villain
8. 47 stringed instrument
9. String instrument
14. Structure unit of measure (2)
15. Military rank
16. Clean by rubbing
17. Bitterly pungent
18. Insignificant
21. Geometry approach
24. Unpunctual
27. Gait
28. Cooled magma
29. Entice
31. Poetically before
33. Observe



Soloutions: Issue 1

A	R	S	E	N	I	C	■	T	H	A	L	L	I	U	M
■	I	■	■	I	■	U	■	■	A	■	A	■	N	■	A
■	C	■	E	N	E	R	V	A	T	E	■	F	L	A	N
A	I	R	■	T	■	A	■	L	■	■	L	■	I	■	O
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R	I	T	E	■	C	H	L	O	R	I	N	E	■	T	■
I	■	I	■	A	■	I	■	■	A	■	E	■	■	E	■
N	I	C	O	T	I	N	E	■	M	E	R	C	U	R	Y