At least *math*NEWS is not moving anywhere!

*look*AHEAD

BLACK BOX getting a facelift

For those who heard about the disappearance of the *math*NEWS BLACK BOX, fear not. It is now safely in the *math*NEWS office.

As some may know, the BLACK BOX has been around for decades. It looks that way. This is why it will be getting a facelift this term.

Watch for it to return to its regular location outside of the C&D later in the term. In the meantime, you can send your submissions to the *math*NEWS mailbox in the MathSoc office, or to `mathnews@student.math.uwaterloo.ca`

InsidED

*mast*HEAD

For Historic Times

Last week, over two million people converged on Washington DC to witness the inauguration of President Obama. Having visited Washington during my last work term, I can attest that if you were not within a few feet of the Capitol, you would not have been able to see a damn thing. I can tell you this, if I were to face cold weather and crowds that seemed to care little about my ability to breathe, I would rather actually see him mess up the Oath of Office instead of just hearing it over loudspeakers.

Alas, working in America teaches you many things about yourself, not to mention others. I especially learned how much I love power. So does everyone else, judging by the responses to this week's question: "If you became President, what would be the first thing you would do?" Having flatly rejected the standard answer of "eat pizza", I received the following threats: Angelo (The first lady and her fine sisters), Tbor (Make a recursive constitutional amendment), Cassle (Blink... who the hell would make *me* President?), Baxter (Offer free harassment charge free grabs of myself *[Wha? — InsidED]*), The Hee Ho (Mine for gold for the King! Hee Ho :D), Sector_Corrupt (Begin work on a Skynet System loyal only to me, with a failsafe that I control), Lich (Bomb bomb bomb Iran), James (Legalize marijuana), snippet (Congratulate Canada for legalizing staplers), MJB (Declare *math*NEWS to be in the Axis of Evil), abortED (Show off the White House on Cribz).

As always, a huge thank you to Graphics for allowing me to use their massive printers. Thanks to MathSoc Computing for fixing my account. And finally, thanks to The Imprint for proudly displaying my insults in their office. Rest assured that there will be more coming.

InsidED (Ban accordions — those things drive me insane)

MEF Referendum

The Mathematics Endowment Fund will be holding a referendum to revise a portion of its constitution. The constitution change would not result in a fee change. The change would allow the Board of Directors to "borrow" money from the donations received in one year to spend on proposals that year, provided it "repays" the amount it borrowed from interest earned in the next 7 years. The full text of the motion is available with the ballot.

Voting will take place from Tuesday, February 10, at 10am to Thursday, February 12, at 10pm. All full-time and part-time undergraduate students in the Faculty of Mathematics, including software engineering students and those who requested MEF refunds, registered in the current term or the previous term, are eligible to vote. Information on the referendum, including the ballot question, is available on the MEF website at `http://www.mef.uwaterloo.ca/referendum`. For more information, please contact the MEF Director at `mefcom@student.math.uwaterloo.ca`.

Eric Woroshow
MEF Director, Winter 2009

Theorem From Volume 1, Issue 2

$$\int \frac{d\,CABIN}{CABIN} = Log\,Cabin + C = House\,Boat$$

Exec Sez

Absolutely Nothing This Week

Normally, people from the MathSoc Executive would report to their constituents on this very page of *math*NEWS. As of the deadline, none of them have anything to say. Therefore, as I have to fill this space with something, I will speak for them.

Chris is trying to juggle his duties as outgoing undergraduate senator, MathSoc President, and incoming Feds VPAF. Needless to say, he is busy.

Ajnu is busy with the budget. It will be submitted for approval at the council meeting two days ago.

Maria is planning some cool events for you. We don't know what, but I'm sure her ecstatic personality is coming up with crazy ideas.

Aaron has been going to meetings. Many meetings. Meetings that I would find very boring.

Your executive exists to be abused. You can go visit them in their office in MC 3039, right across from the MathSoc office. If the door's open, then go in and chat with them.

InsidED

Feds Elections

For those who care

As happens every year, the Federation of Students holds elections for a number of positions. Math students are eligible to vote for the following positions:

- Feds President (**4** candidates)
- Feds VP Education (**2** candidates)
- Feds VP Internal (**4** candidates)
- UW Senate, Math Undergrad Seat (**9** candidates)
- Student Council, Math Undergrad Seat (**5** candidates, **3** seats)
- UW Senate, Undergrad At-Large Seat (**10** candidates)
- Feds VP Admin & Finance (acclaimed by our very own Chris Neal)

*math*NEWS will be attending the Campus Media Forum on Friday 6 February from 11am to 2pm in the SLC Great Hall. If you have any questions that you would like me to ask on your behalf, be them serious or ridiculous, please email them before Monday at **4:30** to mathnews@student.math.uwaterloo.ca. In the meantime, you can get more information on the Federation of Students website: http://vote.feds.ca/.

InsidED

Grad Ball and Yearbook Photos

To all 2009 Grads: The date for Grad Ball has been set! It's on March 21st at Bingeman's in Kitchener. Don't worry, transportation will be provided. So keep that date free and girls, get your dress ready; guys, get your date ready.

Also, help save the yearbook by sending us your photos! Email your photos to mathyearbook2009@gmail.com. If you send us your photos, not only will you be in the yearbook, you will likely dominate it given the number of pictures we have right now.

MGC

ElseWhen

Well, this installment of ElseWhen comes from the second consecutive issue of that infamous year, 1984 (February 3, to be exact). A number of significant and not so significant things were documented in this issue. Among these are the following:

- New MathSoc representatives were elected, as well the executive of the Waterloo Science Fiction Club are elected.
- An attempt to create a union of nuclear physics and integrated circuit design ends with "Second-Degree-Burns".
- An article recommending the benefits of nuclear war.
- An editorial. Gasp!

To select a parcel from an article of this issue, we shall go over a brief sampling of the article "Mattamorphosis" in what follows.

- **unpassed, unattend, unadd** - the opposite of pass, attend, and add (esp. add a course); useful New-speak euphemisms for fail, skip class, and drop the course, respectively.
- **girafitti** - grafitti written ten feet up from ground level on the side of the Math building.
- **IG** - undefined generic term for the unconcept of a peeled balloon; found in the great Hindu word "Rig Veda" but forbidden in "the Upanishads" and "Bacon, Lotus and Tomato Sandwich."
- **seminate** - opposite of disseminate; to recall all the ideas you ever had from everyone who ever listened to you.

Alfred BitchCock

Tough Times Ahead

The recent economic crisis has left many sectors of the business community writhing in pain, but it is little known that even the undead realm is not spared. Despite the difficulties they face, leaders of the underworld are taking actions to ensure that this disaster is fully exploited to further their goal of the annihilation of humankind.

Unemployment rates for zombies have jumped over 10%, due to the fact that the living no longer needs the thought of getting devoured by a being of darkness to strike terror into their minds. Debt collectors and bankers are now being attacked on sight in order to restore some demand for the services of flesh-eating zombies.

Making the matter worse, the zombie population is increasing at unprecedented rates. Creditors are turning higher practitioners of the Dark Arts to raise corpses to thwart their debtors' attempts to escape payments. "This can turn out to be a very good opportunity for us," says Jean Chretien, who has been in the necromancy business for over 30 years. "We are already starting additional necromancy programs in our universities, and the Canadian government already subsidizes this business." The US is likely to follow suit after congress has received an ultimatum worded: "do as we say or we shall extinguish your weak candle of life". Humans are generally not well suited for this profession as it requires giving up one's soul.

All zombies are told to feast like they never feasted before. Why do zombies even care about unemployment rates anyways? One observant commentator notes: "Well, now we have zombies to worry about plus this whole economic crisis thing, how did that happen?"

Lich

MathCooks!

Happy Chinese New Year!

Chinese New Year officially started this Monday, when the Year of the Rat made way for the Year of the Ox. Chinese New Year usually leads to a festive cleaning of homes (Which I totally did!) as well as a gathering of friends and family around a table laden with delicious food. A staple of every Chinese New Year meal, wherever you are, is fish. There's a saying in Chinese: "Nian Nian you yu" which translates to "Having excess every year". Having excess (yu) here refers to a family being prosperous for the upcoming year such that they can afford to have excessive food amongst other things. However, the word "yu" here, pronounced in the exact same way, also means fish in chinese, which is why the phrase sounds like "Having fish every year".

The way my parents always made fish each year involves nothing more than a steaming apparatus. My bamboo steamer turned out a little small for that, so I placed a rack halfway up my wok and steamed the fish in the wok instead. This really is a very simple recipe, I swear! Fishwise, I don't have any real recommendations, but I bought a bass (I think) from New City Supermarket (King St past the bus terminal) and they killed, gutted and cleaned it right in front of me. Quite the experience, I tell you!

You will need...

- A... fish, gutted, de-scaled and cleaned.
- A sprig of Green Onions (Scallions?)
- A piece of ginger
- Chinese cooking wine
- Soy Sauce
- Salt
- Oil
- Black bean sauce (optional)
- Sesame Oil (optional)
- Some peppers if you have it handy (Very optional)

Start by making a few cuts into the fish's body on both sides parallel to its gills (that is, widthwise). 3 or 4 per side, evenly spaced out. Like this: <)))< . Wash the fish clean and place onto a plate (You'll be steaming with it later). Cut the ginger into little strips (Cut into slices, then cut the slices into strips) and stuff in each of the cuts that you have made. Refrigerate until you're going to cook the fish.

When you want to start on the fish, fill your steaming apparatus with water and start the stove. In the meantime, rub some salt over the fish that you've left to sit out. Douse it too with some cooking wine. I eyeballed mine, but I guess roughly a handful should do. You're not trying to drown the fish again, just wet it on both sides with the wine. Do the same with some soy sauce and sesame oil (if you have it handy). Finally, chop up your green onions (and diced peppers) and sprinkle over the fish.

Once the water starts to boil, place the plate of fish into your steaming apparatus and steam. My fish was maybe a pound and a half, and 15-20 minutes was all it took. (Keep an eye on it if you can though, overcooked fish is... bah)

With about 3 minutes to go in the cooking process, heat up some oil in a separate pan (a few tablespoons should do). As it heats, toss in a teaspoon of black bean sauce if you have it, as well as some diced peppers (also optional). Toss the oil around until the oil mixture is hot and evenly blended. When you remove the fish from your steamer onto your table, douse it one last time with the hot oil for a coup de grace. Viola!

The recipe may seem long, but it really isn't. The prep took me all of 10 minutes or so, and I'm awful with a knife. Well, until next year then. In the meantime, Xing Nian Kuai Le! (Happy Chinese New Year!)

Fortuitous Panda

Amazingly Fun Google Searches

When bash.org is no longer fresh

It's sort of like Mad Libs with the internet. All you have to do is look up the following in Google (surrounded by quotation marks). You would be surprised at the ridiculous answers on the internet. Well, maybe you wouldn't.

1. "Windows Vista is like"
Notable Entry: Windows Vista is like Paris Hilton Playing Audrey Hepburn
Runner up: Windows Vista is like a Ghetto Cadillac.

2. "Have you seen my"
Notable Entry: Have you seen my childhood?
Runner up: Have you seen my new soldering Iron?

Tbor

Best ways to make Co-op interviewers remember you

Don't be like your cookie cutter peers!

- Come in wearing a pink fluffy hat. 'Nuff said.
- Challenge them to a dance off. Bonus points if it's DDR. 50 Points if they agree.
- Try to prove by induction that you will get the job.
- Introduce yourself by your internet pseudonym. Bonus points if you write for *math*NEWS under the name.
- Tell your interviewer their eyes are pretty.
- Ask them to help you write an article for *math*NEWS
- Make every prime numbered word "Waffle" or "Fanny." Bonus points for working in the Fibonacci sequence somehow.
- Request that you be paid in bottle caps. Bonus points for requesting Nuka-Cola bottlecaps.
- When asked for references, give imaginary friends. Bonus points if said person is Tyler Durden.
- Try to convince your interviewer to join a cult.
- Turn off all the lights when you enter the room. Declare that they are likely to be eaten by a Grue.
- We're no strangers to love, you know the rules and so do I. A full commitment's what I'm thinking of.
- You wouldn't get this from any other guy. I just wanna tell you how I'm feeling. Gotta make you understand.
- Never gonna give you up, Never gonna let you down, Never gonna run around and desert you.

Sector_Corrupt

Dating Advice from the Single Girl

Dear Single in CO: I have been in a great relationship with a great girl for the past six months. Everything is really good. I take her out to dinner and movies and then we come home and cuddle. I couldn't imagine my life being any better. But she refuses to acknowledge our relationship on Facebook. I changed my relationship status to "in a relationship" a long time ago, but her's is still blank. She says she doesn't want to advertise our relationship on Facebook. Single girl, does this mean that I'm not in a real relationship?

It's complicated

Dear It's complicated: In this day and age, a relationship is not official unless its official on Facebook. A marriage is not legal unless it's listed on Facebook. You don't go to a university unless you're in its Facebook network. Facebook is the new government. All official records need to be listed on Facebook or they don't exist. Hence, you're not in a real relationship. This girl you're seeing is probably just using you for free food and movies. Get rid of her immediately before she rips you off even more.

Dear Single in CO: I'm worried my boyfriend is cheating on me. Last night, he said he didn't want to hang out with me because he wanted to work on an assignment. I checked on him and he was in the library with two other girls! I could tell by the looks on their faces that they were totally into him. Last week, he also couldn't hang out with me one night because he said he had a basketball game. That's two nights in two weeks! For some reason I think he's lying and was instead hanging out with those two girls from the library. So this morning I confronted him and asked him if he didn't like me anymore and was cheating on me. And can you believe his nerves! - he totally denied it! I know he's lying. What should I do?

With cheating boyfriend

Dear with cheating boyfriend: Your hunch is bang on! He is definitely cheating on you. Break up with him immediately.

To the boyfriend: I'm doing you a favour.

Single in CO - `single.in.co@gmail.com`

What's your true colour?

We all have different ways of interacting with each other. We expect different things out of life, but there is very little to explain it. That is, except for looking at people's true colours. Everyone has a primary colour and depending on which group they fall into affects who they interact with the world around them. Here is the break down of the colours!

- Green - Green people are logical and fact oriented. They prefer to know the truth over having an emotional response. Green people are robots in disguise and have no soul which scientists discovered after trying to remove several green people's souls by taking their pictures.
- Gold - Gold people are very organized and like structure. Some of them are power crazy and will kill you to further themselves. Gold people like lists and regulating their bowel movements. Anything that you ask a gold person to do will be completed after filling out the appropriate paperwork, forms and leaving two weeks for processing.
- Orange - Orange people are pragmatic and spontaneous. They like "playing things by ear" and making shit up on the spot. Orange people have no goals, aspirations or conrete dreams, but will gladly hop on the first plane to adventure. Even if no one is flying it.
- Blue - Blue people are emotional and honest. They prefer that people talk about their feelings and can often be heard whining like a bunch of fucktards. Blue people are known for being sensitive and caring. These are the people who cry when you spill milk. Laughing at blue people will only make them cry more. Believe me.
- Brown - Anyone who falls into the brown personality colour group is full of shit. They think that they are always right and basically walk around with their heads lodged so far up their asses that they only see brown. Don't try arguing with anyone from this group because after wading in shit you start to stink of it yourself.
- Vanilla - The only people plainer than a green person is a vanilla person. These people are so dull that you'd sooner read your STAT231 course notes than have a conversation with them. Vanilla people are what we call blank slates, Tabula Rasa or tools. Think of the Lemmings: use them for whatever you want and it's okay if all of them don't make it in the end.
- Violet - Violet people enjoy touching themself inappropriately in public places. They smell bad, never shower and usually wear the same clothing for days on end. Try not to converse with them. Besides disrupting the status quo, you'll be exposing yourself to constant phone calls from someone desperate for friendship.

Remember that no one person is exactly one colour. People usually have a secondary colour which also defines them, just to a lesser extent. Keep in mind the different colours that people have because it will help you understand what barriers that you have with communication and those around you.

Angelo

*dissed*CONNECTIONS

You integrated the area under my curves. I wanted to differentiate you, but you didn't have the time. Meet me at my natural log.

Base of *e*

I saw your sliderule. I wanted you to multiply for me. Meet me at the rave. I'll be with *e*.

Power of Love

I've been tracking your commuting habits for the past four years. Last week I finally had the courage to talk to you, but you weren't waiting at the bus like you usually do. I figured you were sick, so that's why the medicine was in your mailbox.

Bus Buddy

Dear editor, I just love your filler. I love how it just fills me up inside, and how it erases all cavities. I'll be on the couch in your office.

Very, VERY Desperate For Love

Ten Countries
A Traveller's Observations

- **The United States:** It was full of itself. Listening to right-wing talk radio is terrifying, particularly when you come to the realization that Bill O'Reilly is the sane one. The Space Needle doesn't hold a candle to the CN Tower. The Golden Gate Bridge is just a bridge. Cable Cars are just public transit. Los Angeles is urban sprawl frighteningly perfected.

- **New Zealand:** Looks just like Lord of the Rings. It has almost all the geography of Canada crammed into a space the size of Southern Ontario. Whatever you do, don't accidentally call them Australian, or else they'll throw you in the Pacific without a boat.

- **Australia:** The people have the most awesome accent ever. Unlike what certain animated television shows featuring yellow-skinned protagonists imply, Australians are less hardcore about beer than Canadians. 4.8% alcohol content is considered "strong". The outback has kangaroos coming out the ying-yang. Road-Trains are the most glorious form of cargo transport, and put every other tractor-trailer ever built to shame.

- **Japan:** At night, you would be forgiven for thinking you stepped into the movie Blade Runner. Hot Canned Coffee from vending machines at every other street corner is the most glorious invention ever, and puts the ridiculous number of Tim Horton's in KW to shame. There is more to Japanese food than Sushi, and I await the time when all that delicious food makes it to this side of Canada.

[It must be put on the record that this article is, to this day, labelled as "9countries" in the math*NEWS system. — InsidED]*

- **Russia:** Service in the Moscow airport is everything you expect from a communist nation. Everyone hates their job, and by extension hates you for making them do it.

- **Armenia:** Everyone in this country is dirt poor, but paradoxically, they all look like they just walked off a fashion runway. Those street vendors selling what looks like bottles of Pepsi? That's actually homemade 60% vodka. You can buy anything at the flea market downtown; scalpels, test tubes, power tools, all your home and work needs.

- **Georgia:** Has concrete blocks barricading random streets, just in case the Russians decide to invade again. Gypsies are real, and their children are addicted to Coke. As in Coca-Cola. In two days, I had two Coke bottles forcibly yanked from my hands.

- **Turkey:** Mosques believe in super-liminal religious conversion. Every three hours. Toilets lack seats. Toilets lack a toilet. Toilets are a hole in the floor. There is no toilet paper, only a bucket and a tap.

- **Greece:** Driving in Greece is uncannily similar to driving in Carmageddon. Toilets have no seats, but thankfully still have toilets. You literally can't dig a hole without finding at least three levels of ruins of ancient civilizations.

- **Canada:** In Canada, people really, *really,* **honestly,** say "aboot" *[Where? — InsidED]*. And it's cold. So very very cold.

MJB - 55,000 km later

The Unlucky 7
Silly Things implemented by UW since I left for co-op

7. I now have to do work to not donate to a charity.

6. My MathSoc login becomes the only one that fails, making *math*NEWS editing a challenge *[Though thankfully it has since been fixed — InsidED]*.

5. I now have to pay to eat cafeteria food outside of the cafeteria.

4. The Imprint makes the crossword pointless by publishing the answers (again).

3. I can no longer take an extra half-hour of drying my clothes in residence when it doesn't need another full hour.

2. Chris Neal gets elected President of MathSoc.

1. I get appointed Editor of *math*NEWS.

InsideR

How Do Mermaids Procreate?

From ancient times until now, one very important question remains unanswered: How do mermaids procreate? I've asked several people this question already (you know who you are), but the answers were all so sadly *logical*.

99% of the six people surveyed claimed that mermaids reproduce like humans or fish. The other 1 percent thinks it's both, but he's a voice in my head so he doesn't count. But honestly, people, just because it looks like a fish-monkey hybrid thingy doesn't mean it *is* one (I think). Or that it reproduces like one. For all I know, it can be your progeny and his cousin from Japan (who may or may not exist) in disguise. (Please ignore all technicalities in the previous statement. And consult a dictionary if you don't know what "progeny" means.) But I'm rumbling off topic. So, back to the question at hand.

How do mermaids procreate? Obviously I don't know, or else the title of this article would have been a statement instead of a question. If you, dear reader, has an idea, kindly teleport your answer to me in a timely manner. And provide a graphical description to back your arguments.

One With Many Names

Help this poor soul answer this question!
If you know the answer to this question, please email the editors at mathnews@student.math.uwaterloo.ca

The Horrorscopes
Now with 90% more horror O_o

ACC: True power comes from within and you are a great source of it. Sell yourself to an electrical company so that they can slam you into power outlets so that they can meet demand.

Your lucky number is 10 apartment complexes that you power.

ACTSC: Something horrible gets in the way of your plans for a lucrative career making money off of other people's fear of death. You may need to shuffle your plans and prepare for the worst: you may have to be a statistician.

Your lucky number is 20k less starting.

AMATH: An opportunity to test gravity implicitly you can time how long it takes bankrupt investors to get back down to earth. There's no reason to doubt gravity, but it's always good to see how the things that you study can be applied.

Your lucky number is 9.81 meters per second per second.

BBA/BMATH: You should continue to be in a good mood as the influence of the moonshine keeps you in a happy stupor. Alcohol may not solve all of your problems, but it at the very least can make it seem like all is well.

Your lucky number is infinity bottles of moonshine on the wall.

C&O: You will need a sense of humour for when a random pedestrian hurls a polearm at your face. Don't worry about the damage done since revenge is a dish best served with a side of evil. And evil takes time.

Your lucky number is twenty days until sweet vengeance.

CM: Creativity is very important for you as you will be required to come up with a likely alibi. You can always try to seduce the interrogator, but that doesn't always end so well.

Your lucky number is 1 indisputable excuse.

CS: Feelings of restlessness, discontent and stagnant are likely to be result from having too much work to do. Sacrifice your personal life so that you can succeed at what you do, but lack the life to enjoy it when you're done.

Your lucky number is 40 hour work days.

MATH BUS: You are feeling neglected. That is why you do not get a Horrorscope.

Your lucky number is 404 Horrorscope Not Found.

MATHEMATICAL SCIENCES: Keep your pants on; there's no rush to make a few extra bucks on the side. You'll be paying your debt off for years, so don't worry too much about making money right now. It'll come. That's what she said.

Your lucky number is 3 specializations worth a sixth each.

PMATH: If school is testing your patience at its limit then you need to remember that if you see a number you can replace it with an obscure letter and deal with it later. At time t. As t approaches infinity.

Your lucky number is convergent in mean square.

SE: Thanks to the moon you're likely to be in a go-getting mood today. However, thanks to the sun you'll be lethargic and bored. The stars will make you study and a comet will tell you to burn things.

Your lucky number is 30 heavenly bodies influencing your digestive tract.

STAT: A friend could prove to be a little bothersome today, but you shouldn't hold it against them. Everyone needs help with STAT231 eventually.

Your lucky number is 40 friends who need you.

UNDECLARED: The routine won't satisfy you today as a horde of zombies will invade your life. You'll feel abandoned and afraid, but stick close to your friends; they'll pick you up when you're incapacitated.

Your lucky number is 10 minutes until evac.

AHS: You let your imagination get away with you and start creating false realities in your head. Find the least awesome one and assume that it's going to come to pass. Ruin your friendships, relationships and life because you can't be bothered to talk it out.

Your lucky number is the set of all unfeasible outcomes.

ARTS You seek excitement and adventure, but skydiving with a bungee chord isn't the way to go. Most people just get high off of life since the police can't bust you for that. Seriously, try it out! It's really good shit!

Your lucky number is 1 free buzz, but you pay the next time.

ENG: An old memory is holding you back. Drink until you forget who you are to help you move on. Afterward you'll have a new memory which can haunt you, but the older one has run its course. Ad infinitum to let go of the past.

Your lucky number is a 10 at 2. Wink wink.

E: Your friends are threatening to kill you behind your back and you're feeling left out. Tell your friends and try to get involved in what they're trying to do! You never know if it'll work out until you try!

Your lucky number is the finite number of days left.

SCI: You have to learn the art of forgiveness. If you can't master that art, then consider the art of evil, backstabbing or destroying the universe. Mad scientists will always have a place in the world of musicals and bad G.I. Joe episodes.

Your lucky number is 12 sinister yet easily foiled plots.

OTHER: There's a new moon in your sign which will give you pause to reflect on all the generic comments about your life. Consider doing something which requires a positive adjective to alleviate something unpleasant. Or get drunk and fight with random people at the bar.

Your lucky number is beer.

The Hee Ho

(WO)MAN PAGES

```
% man fork
NAME
    fork - create a new process

SYNOPSIS
    #include <sys/types.h>
    #include <unistd.h>

    pid_t fork();

DESCRIPTION
The fork() function creates a new
process. The new process is an
exact copy of the calling process...

ERRORS
[EAGAIN] The system-imposed
limit on the number of processes
under execution would be
exceeded...
```

```
% woman fork
NAME
    fork - eat food

SYNOPSIS
    #include <food/types.h>
    #include <utensils.h>

    food_t fork();

DESCRIPTION
The fork() function is used
while eating to transfer food
from a dish to the caller's mouth.

ERRORS
[EFOODT] The particular food
type in the dish cannot be
eaten with a fork...
                            Snippet
```

Hallway Discussions Etiquette
or "How To Avoid Getting Pushed Into Your Nearest Friend"

Sometimes, as you're walking through the MC fourth floor, you suddenly see a friend of yours walking aimlessly. So you stop to talk and ask them how their life is and so on. Sometimes you and your friends are all leaving a room as a group and stop outside the room because you're all indecisive about where to go from there and you're not really wanting to split up the group just yet. Sympathizing with everyone trying to get aound your massive group, I say **get out of the way!** And if you're a group of more than 2, then walk single-file in pairs and fast or don't be surprised if you get pushed into your nearest friend by upper-years.

There are certain bottlenecks in the MC and DC where no one should stand as this severely restricts mobility of others. Be more courteous about time-consumption needs of others and make way. Sometimes people have to get from MC to Laurier and they may make the iXpress only if you're not blocking the way by talking with your friend in the DC Tim Horton's line. So here's a list of places in the MC and DC where if you stand, and I find you standing there with your posse and blocking the way, someone's gonna get hurt.

1. **DC Tim Horton's line but not in single-file.** Come on, there should be room for three flows in this hallway: people going from MC to DC, people going from DC to MC, and the people in the Tim Horton's line. Do not complicate pedestrian flow by trying to stand abreast with your friend in the Timmy's line. In fact, any Timmy's line should ensure that it does not constrict pedestrian traffic flow.

2. **Fourth Floor MC — Any Corner.** These hallways are tiny! Why do groups of people try to congregate here to discuss stupid random things? Move to the Comfy…GEEZ!

3. **Centre South Stairwell between First and Second floors of MC.** So you have a class in MC 2065 or 2066. You get there early but the class before hasn't let out. You think, "let's wait in front of the ramp area!" WRONG! What the hell are you doing? There will be tons of people trying to get from Southern and Mid-Campus through the Rock Garden *[And the fact that the damn fence is blocking the path to SLC doesn't help either — InsidED]*. **Why are you standing there?** Go to the 2nd floor and wait! What the hell are you trying to achieve by standing in that spot? Your trampling to death by hordes of angry students?

4. **DC to MC Overpass.** It's winter. Do not stop at all while going through this overpass. Stopping will lead to ridicule.

5. **MC to SLC Winter Trail.** Sometimes the President of Math-Soc runs to the Bomber to order some food, and he never takes a winter jacket. Why do you force him to spend more time outside in this freezing cold weather by blocking the shortest route to the SLC? *[Because we want to teach him the value of said jackets. — InsidED]*

6. **Any Landing in any MC Stairway between 20 and 30 minutes past the hour.** Get out of the ways of people getting to class. And people entering a building have the right of way over people leaving.

Pedestrian traffic flow is often not taken into account when planning universities. Whereas we can't change the mindset of building constructors, we can make everyone's life easier if we learn not to stop in the way of others and to either speed up or get out of the way if there's someone trailing closely behind you. In summation, if you don't heed my advice, don't be surprised if you end up staring at your friend's genitals because someone pushed you while you were talking.

Mar²

The Italian Culture Gap

Hee ho! I'm going to educate you on the Italian culture gap. This gap exists between families with one Italian parent and two Italian parents. Boys born from two Italian parents leave the womb at age 36 ready to move in with their wife who will cook and clean just like their mother did! Whereas, boys from one Italian parent will move out as soon as possible if for no other reason than to shut out the racism from the Italian side of the family.

Children from two parent Italian house holds will have fifty siblings and thrice as many cousins. Also, everyone's name ends in an vowel. This is different from a one-Italian parent house hold where the non-Italian will stop having kids after two in an effort to stop the endless cycle.

Boys from two-Italian parent house holds never wash their hair, gel it until it outshines the sun and wear really tight pre-fadded jeans; prompting onlookers to vomit at first site. Girls from two-Italian parent house holds stay home and tend to the endless tomato plants growing in their backyard.

Boys from two-Italian parent homes grow up to be mobsters and business men with unrefusable offers. They all run pizzerias or continue to run their parents' store. They all marry an Italian girl and continue making pizza until the end of their days.

Boys from one-Italian parent homes feel a sense of longing to truly be Italian and become plumbers who can't properly do up a belt unless it's beltway in cider. Children from one-Italian parent homes are taught to be kind to other people; whereas, children from two-Italian parent home act like they are better than everyone else until they get jobs in a mechanic garage and drive cars they can't afford while trying to pick up girls way too young for them.

These aren't stereotypes. These are facts. Facts proven by real doctors. From America.

The Hee Ho

[This is a response to the Imprint column on The Chinese Culture Gap. — InsidED]

The *math*NEWS Article Gap
Thankfully, it is now no more.

The Hee Ho's Half-Assed Music Review

My Fault by Métisse

So I finally managed to grab a perfectly legal copy of this CD, which I've been seeking for almost four years. For those of you unaware (which is likely all of you since I try to give the spotlight to unheard bands) Métisse is a duet from France of pure awesome. Their first album, *My Fault*, is a very beautiful mix of styles for anyone who likes relaxing music. And for those of you who remember, which is probably none of you, I also reviewed their second album (entitled *Nomah's Land*).

This album has the very popular song Boom Boom Ba, which is a very pretty song that has made its way to several TV shows, including the defunct show *Dead Like Me*. Other noteworthy tracks include Walking Home which has a very nice harmony to it (and I love hee-harmonies ho much :D) as well as Sousound? which is a nice fluffy piece. You probably can't find a physical copy of this anymore (I had to get mine off of eBay and the label doesn't even have anymore), but you can buy them off of Napster. This is definitely a duo that I recommend that you listen since they have such a unique and rich musical style.

The Hee Ho

Why Anime and drinking Alcohol daily don't mix.

You will …

* cry as you find out that Sailor Moon is not in the phone book.
* throw a tennis ball at someones face after yelling 'OMG A LEGENDARY!'
* get slapped by your girlfriend when she finds that you wrote her name in your 'Death Note.'
* think that you are a nine tailed demon and tackle your friend hurting them permanatly.
* spend 3 hours a day carefully spiking your hair, because you don't want to be the villian, you want to be the hero!
* try to destroy and control the world with a simple children's card game.
* start to treat every girl around you really nicely, just in case she can bend reality to wipe you out of existence.
* treat your teddy bear like your brother in hope that one day it won't take over you body and parade your body in front of the world.
* start to think that swiping cards through your cellphone will cause your cat to go through a rediculous evolution scene, that sadly cannot be skipped.
* shit your pants trying to go Super Saiyan to save the universe.

Baxter and Sector_Corrupt

Chess Problem of the Fortnight

In this opening article of the chess problem of the fortnight, I provide a checkmate in three moves to baffle your naive minds. The following problem was composed by William A Shinkman, and first appeared in the Dubuque Chess Journal in 1890. White to play and mate in 3 moves (chessboard to the right).

The Chess Guy

Top 10 Reasons to Drink While Coding

Brought to you by a very fun weekend near you!… and insomnia

10. Because if you're a programmer, you probably deserve those drinks.

9. Coding requires abstract thought. Drinking results in abstract thought. Coincidence? I think not!

8. You don't care about your code's readability and you know it.

7. It'll inspire cryptic drunken riddles in place of comments, and who doesn't love that?

6. You heard about that mythical level of alcohol that leads to superhuman coding, right?

5. You're still more productive than the average artsie.

4. With enough practice, you can brag "I could code that drunk" and legitimately be telling the truth.

3. Creative variable names like Hobwiglarz and Gerald_the_foul are more fun than informative ones.

2. You think games with premises like earthbound's or mario's were coded without some sort of substances involved?

1. And of course, it might inspire a lovely article for your friendly neighbourhood *math*NEWS.

Author's Note: Drinking a Shot everytime Team Rocket appears in Pokemon = Bad Idea. Drinking every time your code doesn't compile right= Much Much worse.

Sector_Corrupt
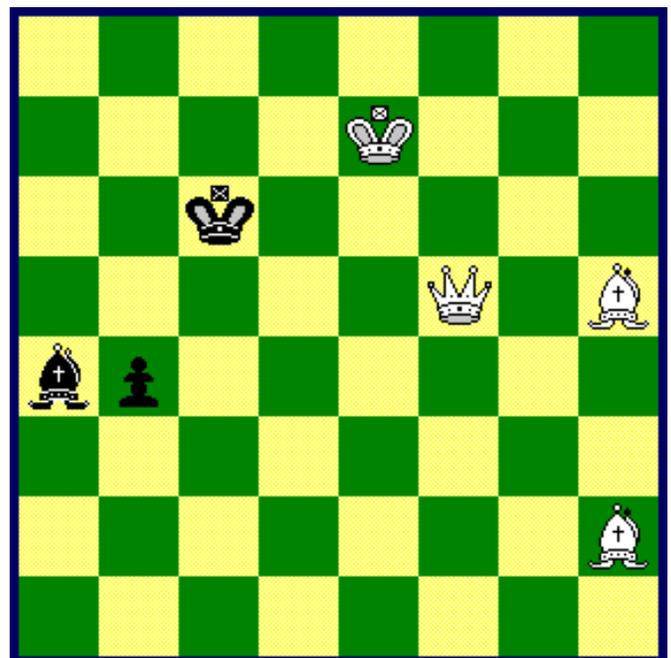
*prof*QUOTES

I have nothing against reproduction. I kind of enjoy it myself!

Duimering, MSCI 311

So I might be telling you about things your calculus teacher would rather I not... But whatever, we invented calculus so...

Mcnees, Phys 122

Whoah! Have you ever seen crooked chalk? I mean, black holes are an everyday thing for me, but crooked chalk just blows my mind!

Mcnees, Phys 122

Which is why my coke isn't bubbling out of it's bottle... though it really wants me to drink it now.

Mcnees, Phys 122

I don't understand what this "meter" you speak of is.

Mcnees, Phys 122

There has never been a metric pirate

Mcnees, Phys 122

So what do you do if you don't know how to factor a cubic? Guess. That's what the engineers do.

West, Math 128

Don't let the magic smoke out of the device... It's known that computer devices run on smoke so if there's smoke coming out of the device, it no longer works.

Bishop, ECE 325

[when test instructions state to describe your professor] Please be nice. Don't say that I'm ugly.

Nash, FR 151

[after test] You were very nice to me. I am pretty, I am thin, I'm middle-aged, I am happy.

Nash, FR 151

I can narrow the universe. Maybe I'll expand the universe, or just shift it to the left...

Treffler, SE 112

You see it all the time, people discovering new truths on exams. Of course, they're wrong...

Sham, Math 136

... chalk is far more mysterious than anyone has imagined.

La Croix, Math 138

[the class answered "A" to a question] You know, when you guys answered "A", I wasn't sure if you were answering my question or just being Canadians.

Wolczuk, Math 136

Word of the Week

Philodox (FIL-uh-doks) Someone who loves their own opinions. Describes 98.54% of the *math*NEWS writers. (I don't know what happened to the other 1.46% *[I guess I hid the bodies quite well — InsidED]*.)

The Verbivore

Interesting Math
It's Hammer Time.

Here's an interesting take on integration. Consider a positive function $f_0(x)$ on the interval $[0,1]$ (with other suitable assumptions I won't state — as an exercise, determine when this method works). Sure we could take the integral in the traditional way, but then I wouldn't have an article. Suppose the region under the curve is physically realised by some incompressible yet pliable material (imagine clay). Take a large sledge hammer, and repeatedly smash the material down. Lumps and mounds will slowly shrink, as their mass fills up holes and dips. We are eventually left with a rectangle with width 1 and height precisely the value of the integral. Appropriately, we shall call this sledgehammer integration.

This is all well and good, but as mathematicians we would like a more rigorous definition. Hence: begin by averaging the values of $f_0(x)$ about the line $x = 1/2$. Hence, we replace $f_0(x)$ with
$f_1(x) = (1/2)[f_0(x/2) + f_0(1–x/2)]$.

What does this do? We are taking the values in the first half of the interval $[0,1]$, and stretching them out over the entire interval. We then apply the same process to the second half of the interval, and take their averages. Now, we wish to apply this process repeatedly. Another tap with our hammer will again average out values $f_1(x)$ take, and more generally, we can define recursively:
$f_n(x) = (1/2)[f_{n-1}(x/2) + f_{n-1}(1–x/2)]$.

Try this method out with some functions. Why does this method work, exactly? Consider $f_2(x)$ in terms of $f_0(x)$. Doing the quick substitutions,
$f_2(x) = (1/4)[f_0(x/4) + f_0(1/2–x/4) + f_0(1/2+x/4) + f_0(1–x/4)]$.
In particular, for $x=0$, we get
$f_2(x) = (1/4)[f_0(0) + 2f_0(1/2) + f_0(1)]$.

This is just the trapezoid method with three subdivisions! You may notice that at $x=1/2$, we get the midpoint method. In fact, other evaluations of $f_n(x)$ are essentially particular Riemann sums, so it makes sense that this method works. This method can be quite simple to use, since as we increase n, we only need to make a constant number of calculations. Of course, this method will generalize to functions over different intervals (a,b), and will work for negative functions if you break up your original function into positive and negative parts. So the next time you need to do integration on your exam, ask your professor if sledge hammers and clay are on the list of allowable material.

Vince's problem of the issue We know that for Euclidean space, all closed sets can be written as the countable intersection of open sets. Find a topological space in which this property fails.

Vince Chan

Cereal Killer Alert!

As of Jan 26, 13:52pm, regional police have declared the most dangerous cereal killer of the century on the loose. Eyewitnesses claim that the cereal killer, known only as Kalogs, is armed with a spork and a never-ending jug of white juice secreted from cows. It is believed that he will be targeting all chocolate-flavoured breakfast cereals. Police urge all residents to stay alert, and report all suspicious sightings and instances of disappearing cereal boxes.

Yes, I have random names.

Eight Bit Adventures with Tbor

Because the Classic Video Game Guy Can Always use More Sales

So over the past year, I've picked up an NES, and have started playing games that were made from the times of yore. This issue I am going to cover The Legend of Zelda 2: Adventures of Link, and the all-time classic, Trojan.

Now, everyone agrees that Adventures of Link doesn't fit in with the Zelda series. The top down approach is ignored in the game as the majority of the game is a weird side scroller (you can go backwards, but it has no platformer qualities until the end). It is simply dodging missile fire, while swinging the same sword as the original legend of zelda (that turns into a missile attack when your life is full — I will never understand this). Anyways, everything makes sense until the end, when all out of nowhere, the game gets incredibly hard. The penultimate boss is a giant blue angel that is far more detailed than any other sprite in the gam the game gets incredibly hard. The penultimate boss is a giant blue angel that is far more detailed than any other sprite in the game. Then to top it all off, the final boss is shadow link, summoned by a guy who appears at random, and is the same as you but faster. I found that the only way to beat the game was by luck. The games in cartridge memory is not very secure, and so when knocked, a bit changed, and gave my character "B" attack as opposed to 2. With more than double the maximum damage, I could go for headshots on bosses, ending the game significantly faster.

When people think trojan, they jump to the condoms company. For shame. Actually, that was my reason for buying this game. And no, the game doesn't even have to do with the trojan war. In a future distopia, instead of using guns and modern weapons, one man must stop the government: with a sword and shield. Now, this task in the game is as hard as it seems. Basically people are shooting you, throwing grenades at you, and attacking you as an armadillo (most annoying mini-boss EVER). Even if you beat the goons, mini-bosses, and bosses with modern weapons, the penultimate boss basically beats your face in with a mace bigger than you, and there is no chance of survival.

Tbor

$25 Gift Certificate

Yes, We Have Another Winner!

If you write for *math*NEWS, you can win! We have another $25 HMV Gift Certificate available to the winner of this fortnight's Article Extravaganza.

This week's winner is snippet. While I will shamelessly admit that I will never understand the female population, she has given me some insight into how the female mind differs from the male mind. You can pick up your prize in the *math*NEWS mailbox.

Do you want to be a fab winner? Then write for *math*NEWS! Submit your articles to the *math*NEWS mailbox in the MathSoc office, or email your articles to mathnews@student.math.uwaterloo.ca (make sure "Article" is in the subject).

InsidED

SigInt

The precious 10x8 grid that we call home has been infiltrated. Signals intelligence tells us that the following agents are somewhere nearby, all they can tell us about their locations is

- How many squares in a row or column are occupied
- They've been ordered to disperse so they aren't touching, not even diagonally.
- Remember: they can rotate.
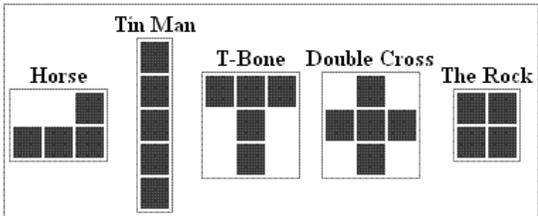
Puzzles courtesy euri.ca

umbrellas
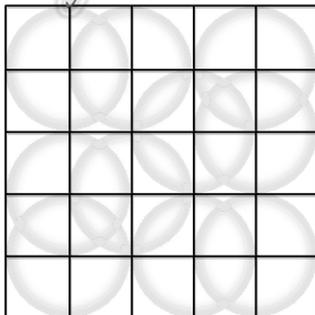
Place the following 10 squares on the 10 circles so that the overlapping numbers match up.

```
7 7   9 1   1 4   2 9
1 5   4 3   0 5   7 4

0 5   5 0   4 6   0 5
6 5   3 6   6 0   4 6

5 3   8 7
6 2   2 1
```

Drywaller

"Listen up. Our client isn't picky, as long as each square has the right number of walls surrounding it. Sounds a little tricky, but we didn't get to be the #3 drywall outfit in town by being lazy."
Also:

- There's a wall around the outside
- They want exactly 15 rooms

2	1	1	2	4	2	1	1	2
1	0	0	1	4	1	0	0	1
1	0	0	1	3	1	0	0	1
2	1	1	2	2	1	0	0	1
4	2	1	1	1	2	1	1	2
3	1	0	0	0	1	2	2	3
2	1	0	0	0	0	1	1	3
2	2	1	1	1	1	2	2	4
1	2	2	1	1	2	3	3	3
2	2	2	1	1	2	4	3	2	3

The Following Filler May Be Disturbing To Some Readers

But I don't care. You must read it anyway.

*grid*COMMENTS

Wait, why did no one submit?

Last week's *grid*WORD was so easy! Why did only 2 people submit? Well, the winner is Alex Liedtke for his awesome answer of "!" to the question of "?" Come on down to Mathsoc to pick up your $5 gift certificate! As for this week, our theme is SHOCK AND AWE! All these clues should have something to do with shock or awe (aww) inducing things! At least, I hope! For the tiebreaker, answer the *grid*QUESTION!

This week's *grid*QUESTION: How do you handle a shocking revelation?

Remember: Just drop off your submission in the *math*NEWS mailbox in the MathSoc office before Monday, Feb 9th by 6pm to be eligible for prizes!

Megaton Panda
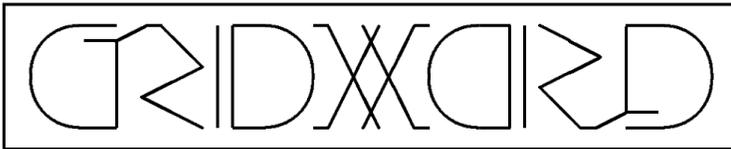
Students Offering Support

Exam-AID Stress Relief Party

This is an annual party to help you relax and have a good time before midterms come up. The event will be held on February 6th starting at 7pm in Fed Hall, and it will be a charity event.

Tickets are now on sale on the 3rd floor of MC during lunch hours. They are selling for $10 in advance, or you can get 5 tickets for $40. That's a free ticket! But get them early, because they go up to $15 at the door.

For more information, please visit us online at `http://www.waterloosos.com`.

Maria Christina Greco
VP Event Logistics
Students Offering Support

Across

1.　Hank's tearjerker where he runs
6.　Two girls apparently share this
7.　Will Smith's suave pick-up artist
9.　Irwin's shocking adversary: ___ ray
10.　Electric rodent
11.　Theme of this week's gridword
13.　People go "aww" when a new one of these greets the world.
16.　A gun that shocks people into submission
17.　Shocking pieces of rope

Down

2.　Apparatus they used pre-TV
3.　Felons meet a shocking end on this
4.　People who use computer programs
5.　Larger electrical appliances all have this feature (2 wds)
8.　A great shock can send people into a state of this
12.　A device that lets you transfer paper images onto the computer
14.　The general consensus when you make a really wicked comeback. (2 wds)
15.　A surprise ending.

Thor's CS Problem Of The Fortnight

Where the hell is he?

So it appears that Thor has gone awol on us, leaving me to answer last fortnight's question: Describe a short program that would determine at runtime whether the program stack is growing up or down in memory.

All one must do is declare two variables on the stack, and compare their memory addresses. Assuming "up memory" means "increasing memory addresses", you would do it like so:

```
int stack_grows_up ()
{
    int a = 1;
    int b = 2;
    return (&a < &b);
}
```

This fortnight's question: Describe an algorithm that will find Thor in constant time and drag him to the next production night.

InsidED

Last-Minute *prof*QUOTES

[as he was sick] This is like Marineland. You don't want to sit in the front row.

Terry, SE 382

When I get a shiny new pair of vice grips, I go around gripping everything… might explain why my kids look funny.

Shallit, CS 341

So let's review… think back to Thursday. I know there were lots of parties this weekend, I guess the drugs have to wear off.

Shallit, CS 341