

math NEWS

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lookAHEAD**mathNEWS**

October 17	Issue 3 spices up your life
October 27	If you wanna be my lover, you gotta turn up to Production Night #4
October 31	Issue 4 slows down and has some fun

University

October 24	Deadline for 50% tuition refund
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Miscellaneous

October 18	Alaska Day
October 25	Make a Difference Day
October 31	Hallowe'en

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Amy Li (Ginger Spice), Elizabeth Liu (Sporty Spice), Katherine Tu (Scary Spice), Jose-Miguel Velasco (Baby Spice), Rachel Wiens (Posh Spice)

mastHEAD

I can't believe people showed up to a Thanksgiving Day production night. Are these people insane? Honestly, there are so many better things to do during your day off instead of coming to a production night. Well, not like it matters, no one reads this section anyways—except for the answers sometimes. I can say whatever I want here and no one would give a crap. Sex sex sex sex dicks butt cookiemonster ho. Since people did show up, we actually had to ask a question this production night, a lot of unnecessary work on our part. These people suck—they just wanted pizza for Thanksgiving! Another editor will see this and probably rewrite this, so fuck it, I'll write whatever; it's not like it will see print anyways. We asked the losers who showed up the following question, what should we *not* give thanks for?

Tubes Jr. ("Soulja Boy"); unit ("Ebola"); MuffinED ("Homework on a long weekend"); DictateED ("Babies"); Beyond Meta ("Santa Claus, he is an evil communist."); bunniED ("Electrical wires. They're chewy but when you bite them you get hurt?? What's up with that?"); Zethar ("Hubris. Almost made our backyard a supernova."); lp0onfire ("Side + B"); SketchED ("Hope that never dies!"); Scythe Marshall ("Illness. Unicorns? I dunno."); wibbled ("NO INTERNET GRR THIS IS SLOWLY DRIVING ME INSANE");

SketchED ("Not like this will see the light of day").

PUMPKIN SPICE UP YOUR LIFE!

Every boy and every girl

PUMPKIN SPICE UP YOUR LIFE!

Another Day in MC

A few days ago, I realized it was possible to talk to people. Of course, it wasn't a very useful realization, and the uses of the idea were limited. However, whenever a new idea is encountered, some examples may give you a better idea of what it means, so I made a few attempts in talking to people. It was an activity of great interest as many of the students I talked to would never converse with me (of their own will) again.

However, one poor confused arts girl talked to me for quite some time, exhibiting an interest in mathematics. After an hour of explaining some math not conjectured by me, she invited me to the PAS building to continue the conversation. At this moment, I thought of the grueling trek across the campus towards the mysterious building, and of my current physical shape. The cold winds of fall, lack of coffee, and the Math C&D all flashed through my mind as I contemplated on the decision. The comfy lounge, the sturdy concrete construction of the MC building, the courtyards on the higher floors – the best part of it all was the warming grey colours of the building itself. My decision was made.

"No thanks," I spoke with resolve. "I'll PAS."

FARMSA

FARMSA, or the Financial Analysis and Risk Management Student Association, is a club that seeks to provide interested students with the knowledge, tools, and networks needed to attain various professional designations (CFA, CFP, PRM, CSC, etc.) in the financial services industry.

Throughout the term, we host events that help our members develop necessary skills like using Excel, VBA, and Bloomberg, as well as how to network and create résumés. We also have fun activities like bubble tea socials and dodgeball games with the ActSci Club.

If you have any questions or would like to peruse study materials for the CFA and PRM exams, come to our office hours in M3 1002 Mon – Thurs 12 – 4PM.

Join if you're interested and get stamps on your membership card for a prize at the end of the term!

wibz

Sign Ups for Humans vs Zombies

Next week, from October 20th to October 24th, there will be sign-ups every day for Humans vs Zombies (HvZ) taking place in the SLC (Mon-Wed) and the 3rd floor of MC (Mon – Fri) from 10AM to 7PM.

HvZ is a week-long game of man-hunt between two teams: humans and zombies. Zombies have the goal of trying to turn as many humans into zombies as possible by tagging them. Humans can stun zombies, temporarily preventing them from zombifying humans for fifteen minutes, by shooting them with a NERF gun or by hitting the zombie with a weapon made entirely out of socks.

The game also features missions and special rewards for the winning team. The official rules can be found at watsfic.uwaterloo.ca/hvz/rules.pdf.

Coming Out Week is Over

In celebration of Coming Out Week, I ventured outside almost every day this week. The weather was quite nice, although perhaps more chilly than I would have liked. Now that Coming Out Week is over, I think I will go back to hiding in my room. I hear it will rain in the next few days, and my room has a roof and blankets.

hermit cat

P.S. To all those who used the week as motivation to come out, well done! I, as usual, was too much of a scaredy-cat.

Office Gossip: F14 #3

Checkouts

Being a student is expensive. Between tuition, books, and living expenses, not much money is left over for personal effects. This can be a blessing in disguise, though, because living light means having a much easier time moving, as students are wont to do. However, just because students can't afford to own and move some things, doesn't mean they shouldn't have access to them. MathSoc understands this, and keeps a wide variety of useful and fun things available to be checked out. For example, did you know that MathSoc has one of the largest collection of publicly-available board games in the area? The Society has teamed up with the Waterloo Science Fiction Society and together are able to offer up over 250 unique games. In addition to games, here is a list of items commonly checked out by students:

- Textbooks. MathSoc has a wide collection of course-related textbooks, including copies of most textbooks for first- and second-year courses.
- Calculators. While MathSoc is not able to check out calculators to students for use on their exams, midterms, tests, or quizzes, calculators are available for assignments, course-work, or personal use.
- School supplies: Pens, pencils, rulers, sharpies, white-out.
- Masking or Scotch tape
- A Kleenex box (though we may give you a judging look for subjecting your fellow classmates to your illness)
- Change-counting machine
- Frisbees, sidewalk chalk, and other outdoors toys
- Cellphone charging cables
- Essentially anything in the office that isn't nailed down and makes sense for someone to borrow.

So how do check outs work? It's very easy! All you have to do is visit the MathSoc Office (MC 3038) and leave your WatCard with an office worker to check out as many items as you are comfortable with. Note that you can use only a WatCard to sign items out; other forms of identification or collateral are strictly not allowed. The office worker will then ask you for some information to enter in our database. You may leave with and use the items you check out for as long as you are willing to go without your WatCard. To get your WatCard back, simply return the items in the same condition you took them. Be careful though! Check-out and check-in services are available whenever the MathSoc office is open. The office is scheduled to be open from 9AM to 5PM, and while we are sometimes open later there are no guarantees. If you need your WatCard overnight (to buy dinner or get home, for example), make sure you are able to sign your items back in by 5PM!

Happy midterms!

Darcy Alemany
MathSoc Office Services Manager

**Slam it to the left
If you're having a good time**

English and Mathematics

In English grammar, nouns are either countable or uncountable. The former are things in front of which we can put a cardinal or (what Wikipedia calls) a count determiner. 'Three oranges', 'one million dollars', and 'several chairs' are all examples. Some examples of the latter are 'the milk', 'music', and 'furniture'; these are sometimes called mass nouns because we can't identify discrete subsets thereof. When discussing these nouns, we usually can't use the same grammatical structure. Phrases like 'I bought five furnitures' are patently ridiculous; we instead use structures such as 'some milk' or use different nouns to refer to specific items inside the mass noun, e.g. 'a few tables' as part of the furniture.

However, the issue here is not the fact that certain nouns do this. This, by itself, is fine. The issue is that the term 'countable' is overloaded. Examine the following sentence:

"The real numbers are countable."

In English, this is valid; if I want to talk about the set $\{1, -1, \sqrt{2}\}$, I would note that I have three real numbers. However, the set of real numbers is uncountable, in the sense that it cannot be put in bijection with the natural numbers. This means that while the real numbers are countable, they are... uncountable. This is a problem.

The solution: instead of 'countable' and 'uncountable', we instead talk about nouns which 'can be assigned cardinalities' and which can't. This fixes the issue of calling uncountable things countable. Because clearly, this is a major issue and requires immediate fixing.

Of course, it turns out that other languages may or may not use different terminology for these concepts (French: on peut utiliser 'nom comptable' pour traduire 'countable noun', à place de 'dénombrable', qui veut dire 'countable in the mathematics sense'), or use a different grammatical structure, which means this distinction doesn't really come up.

To conclude, I'm probably being too picky again. Oh well. It's a neat reconciliation of language and mathematics, and when one may perform such a feat, well, why not?

Scythe Marshall

*dissed*CONNECTION

To the one I've been watching: we used to be on such good terms before, what happened? When our eyes finally met, you screamed and closed the blinds.

Now what am I supposed to use the three-story ladder for? Oh well, I hope I can get a refund for this. Hopefully we'll see each other again, and there will be less screaming.

The one with the ladder

The C&Ds of UW

Because One C&D Isn't Enough

Many people here at UW go to Tim Horton's for their morning coffee, as they provide fast double-doubles on the go. However, for those of us who prefer cheaper coffee, or just don't like Tim Hortons, there are faculty-run C&Ds. I've been to all of them, except for the Environment C&D. They have something called "fair trade coffee", which is higher in price compared to the coffee in the other C&Ds.

In my opinion, the Math C&D is the spiciest, with more selection than the other C&Ds, and each cup of coffee is about 75 cents. The Engineering C&D has a similar selection to Math's, but the space inside the C&D is cramped. The coffee is cheap if you bring in your own mug (about 60 cents). The Science C&D is the most relaxed one, and you can even bring backpacks into it! The price of each cup is the same as Engineering, but there is a limited variety of coffees and snacks.

Math and Engineering C&Ds have different types of flavoured coffee, hot chocolate/cappuccinos (both pricier than coffee), a selection of donuts, and other foods. Neither of the C&Ds allow for backpacks in the store, nor accept WatCard – only the Math C&D accepts debit cards. The Math and Engineering C&Ds are also the only ones that have paid employees.

The Math C&D is located on the 3rd floor of MC, Engineering on the first floor of CPH (on the south side), and Science is close to the Bio building entrance under the overpass to the ESC building.

This is only a tidbit of the C&Ds of the university; I recommend exploring each one and discovering your favourite one. Enjoy your coffee and donuts!

quiz



About Ticket to Ride

All Aboard!

Ticket to Ride is a popular board game based on a graph of a geographical location where players act as train barons who fight over contracts and build edges connecting vertices via a path. Players collect resources, which they must expend to build said edges, and at the end of the game the player who is most successful wins.

It is a very fast board game with a large amount of strategic depth. Those who wish to try out the game may borrow the game from MathSoc or come to MathSoc Board Game Nights, held on Tuesdays this term.

For those who are veterans of the game and want a few variations to try out, consider the following *misère* variants:

- The player to win is the player whose score exceeds 100 by the lowest amount. A player who ends the game with a score less than 100 automatically comes last. Tie-breakers are resolved with opposite order of priority.
- Players are not allowed to use the game-provided score markers to keep track of score during the course of the game.
- Players may not pass. Remember the rule about being unable to draw means that a player is forced to make a play on the board or take tickets. In the interest of time, players may agree on a hand limit beforehand.
- The game ends as normal. Since players are not allowed to pass and eventually players will be forced to play; this will happen eventually. This probably won't happen too often since 100 points isn't that trivial to reach in the first place.
- For a greater challenge, make the target score 150.

Have fun!

Zethar

Monty Python in Python:

Killer Rabbit

```
def attackRabbit(knights):
    while knights > 5:
        print "*dramatic chord*"
        knight-=1
    print "Run away! Run away!"
```



IST to Implement RFC1149-Compliant Wireless Network

Waterloo, ON – Coming on the heels of the recent announcement of the demise of the uw-unsecured wireless access network, the University of Waterloo's Information Systems and Technology group has followed up with a surprising press release. In an unprecedented move, IST plans to replace Eduroam with an avian carrier WLAN based on RFC 1149.

Representatives from IST have said that RFC 1149 networks do not suffer from the connection difficulties that plague Eduroam, such as loss of signal and weak connections. "The vendor has recommended that users keep a supply of seeds and small grains near their wireless device to ensure the highest possible signal strength. Avian carriers can be finicky, but this is a proven, field-tested solution." A campus-wide initiative will be put in place to recycle the "scroll[s] of paper" used to send data.

The main obstacle to deployment of this network, not surprisingly, is the presence of geese. "We expect to see a significant number of dropped packets and lost carriers in the spring, around nesting season," says one IST network manager. "We're going to roll out some extensions to the base protocol to compensate for this. If we define a prioritized pecking order for our carriers, we can ensure that essential services are sustained during periods of disruption."

Members of a third-party firm putting together a proposal for a campus-wide deployment of an RFC 6921 ("Design Considerations for Faster-than-Light Communication") network were unavailable for comment at time of printing.

lp0onfire

Last Week's Solutions

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

Just Warriors Band Things

Loud is good, fast is better, loud and fast is best!

1. Finding out the Queen's basketball team has taken over the band room and deciding to go to the game, only to find that they're not even playing the Waterloo team.
2. Going to the Waterloo vs Western football game and seeing our football team score points.
3. Going to the Waterloo vs Brock home opener men's hockey game and see them score more points than the football team.
4. Going to the Waterloo vs Brock home opener men's hockey game and playing some really cool tunes.
5. Dressing up on Halloween and going around campus playing festive music.
6. Going to see the Rocky Horror Picture Show on Halloween night at the Princess Theatre at Uptown Waterloo.
7. Heading to Elmira on December 6th to march in the Christmas Parade.
8. Playing the national anthem at sporting events and actually having to sound good.

Come to practice at PAC 1001 on Thursdays from 5:30–7:00 PM and check us out on Facebook!

wibz

How to Survive The Ebola Outbreak

It's not zombies, but it'll have to do

Ebola has spread to the first world! The apocalypse, the end of the world, is happening at last! Are you prepared for the outbreak? No? Well you're reading the right article! Just follow these tips and you'll be surviving in no time!

BREATHE

The act of taking oxygen into your lungs and transporting it to your cells is pretty important for survival^[citation needed]. When trying to survive, make sure to breathe regularly.

DRINK

Death by dehydration is no joking matter, and you shouldn't take it lightly. Make sure you are hydrated at all times.

EAT

Make sure you consume sufficient calories each day to match your body's needs. While you can live for ~3 weeks without food, it should definitely not be overlooked.

Finally, you should trust in our healthcare system to contain the virus, use common sense, get a drink at the Winchester and wait for it to blow over.

theSMURF

**If you wanna be my lover, you gotta get with my friends
Make it last forever—friendship never eeeends!**

profQUOTES

Only four *profQUOTES* this week! What happened, everyone? We had so many last week, and now we're back to square one. Luckily for you, the Editors decided to scrounge up some old *profQUOTES* from previous issues to make up for the lack of content. We won't be so generous in the future, so get your writing utensils ready! As usual, submit your *profQUOTES* to the **BLACK BOX** on the third floor of the MC or at mathnews@gmail.com.

"Here is a quote by Antoine... [Tries to read surname.] Sounds like some French guy?!"

Becker, CS 349

"Atomic does not mean radioactive; get that out of your head. It is from the Greek words at and omic: 'deep fried' and 'running shoe.'"

Buhr, CS 343

"You know math jokes are stupid, so don't expect to laugh."

Hofert, STAT 240

"Wow, I am from a different planet. I can live with that."

Geelen, CO 342

Recycled *profQUOTES*

[On PAS.] *"Fortunately, we never got the results of the research because they couldn't find their way out either."*

Doyle, ECON 304

"We're using 'proof by checkmark' again, although I advise you that if you want marks on your assignment not to do this."

Purbhoo, MATH 249

"Big-O is a monster that eats everything smaller than it."

Dupont, MATH 119

"Fortunately, most terrorists do not take macroeconomics."

Smith, ECON 102

[Dan Wolczuk's voice drifts in from down the hall.]

Nica: That must be my colleague Wolczuk. He could sing at the opera if he wanted, but for some reason he decided to be a math instructor. [Leaves the classroom.]

Wolczuk: [From other classroom, not yelling.] Sorry about that.

Nica, MATH 247

"I know engineers exist because I can smell them."

Vasiga, CS 241

"This mic catches my breathing. I think that's kind of scary."

Pei, MATH 239

"Sure, we could use trigonometric substitution, but that would be like pushing a cow with an aircraft carrier."

Wolczuk, MATH 138

Fight Breaks Out on Roof of Davis Centre

Waterloo, ON – Last Tuesday, two unidentified individuals were observed to be engaged in a standoff atop the Davis Centre that eventually came to blows. Witnesses reported they didn't notice anything unusual until a loud, disembodied voice shouted "GO!", at which time they looked around and spotted two figures on the roof of the nearby DC atrium. It is uncertain how the fighters gained access to the roof, which is normally off limits to all non-maintenance personnel. One witness claims to have seen the two individuals jump out of pipes, but a search of the roof failed to determine any locations where a pipe large enough for a human to fit inside would have been visible from the ground.

According to observers, the smaller of the two fighters (here identified as "One" pending police identification) jumped at the second (here "Two") while attempting to throw a punch, but Two rolled out of the way and followed up with a devastating uppercut to One's shoulder. One was launched up into the air; Two jumped, attempting to follow up, but One pulled out a red shield and deflected Two's attack. Both fighters were unable to move until they touched the ground. Simultaneously, they dove for an oversized hammer that had appeared nearby. One got there just in time and began swinging the hammer at Two, who had realized it was too late to turn around. One connected with the hammer; Two was launched off the roof and exploded in a burst of red light, but One continued to swing the hammer, somehow unable to let go.

By some miracle, Two appeared again a few seconds later, on a metal platform suspended above the roof. Two growled with rage and pulled out a small firearm, taking several pot-shots at One while One rushed forward yet again. Although every shot hit its mark, One was undeterred and Two managed to get out of the way just in time as One leapt forward with another jumping attack. This would prove to be a tactical failure for One, who was sent flying off of the roof with the force of the jump and could not control their fall or recover. A puff of smoke was all that was left of One at this point.

However, One was back atop the roof and back in the fight. The combatants traded blows for a few minutes, neither managing to land a decisive hit but both visibly sweating and steaming after a string of several solid hits and near misses. At this point, several witnesses reported that some kind of glowing weather balloon or inflatable ball had been caught by the wind and was blown toward the rooftop. The fighters seemed to take immense interest in this orb and broke off the attack, each attempting to out-race the other and get to the ball first. One bull-rushed toward the orb and was making good headway, but Two, in a desperate move, lit himself on fire and used the force of the exploding air to propel himself toward the orb. Two made first contact but was unable to break the ball; One took a chance and jumped off of Two's head but could not get enough vertical distance to reach the balloon. Two, remembering his firearm, shot the ball until it broke, at which point a large tank fell from the sky and crushed One, blasting him into the stratosphere.

After the fight, One could not be located for comment; however, Two, as the winner of the fight, proudly came down from the roof to speak to the gathered crowd. He said the DC roof was chosen because it was, according to him, "a good stage... no gimmicks", but was upset at the appearance of the hammer during the fight.

"I thought we agreed, 'No items, me only, DC rooftop', but someone cares more about the fun than the glory."

He insisted that the combat was "just something they did to blow off steam" and that neither competitor was seriously injured, despite both having visibly lost their lives on several occasions.

Witnesses agree that everyone involved had a smashing good time.

Fun Things to Type into WolframAlpha

- (Selenium in a cubic lightyear of butter) / (weight of a septendecillion sharks) * (world population in 2008)
- 88 mph
- Estimated average cruising airspeed of an unladen African swallow
- Easter eggs
- Where in the world is Carmen San Diego?
- Are you human?
- Why did the chicken cross the road?
- Where am I?
- Do I look fat?

Beyond Meta

SPOILERS: Tyrion Has a 40% Dhance of Dying

George R. R. Martin's Song of Ice and Fire is well-loved. However, the long wait since the latest installment has driven some fans to new and absurd levels of speculation, and none more so than Richard Vale, PhD Assistant Professor at Cornell University.

Unable to endure the wait any longer, he wrote mathematical paper entitled: BAYESIAN PREDICTION FOR THE WINDS OF WINTER. The goal of the paper is to predict how many chapters each character will get.

We would not recommend reading the article itself, as we would not want to accidentally spoil that Ned Stark gets *be-headed at the end of Game of Thrones*.

Beyond Meta

Another Date with the Dean

Greetings, fellow mathies! As you might recall, we had an interview with the Dean, and have been slowly putting the answers he gave us into issues. In all his infinite wisdom, he imparted knowledge to us, with the trust that we will never use the knowledge for the wrong things. The fact that we are publishing his interview shows that his trust was misplaced.

For the following questions, we decided to hit hard with his more personal life, and he did his best to dodge the answers as well as he could. We did not let him escape the questioning though, since even as the Dean of Math, he needed to suffer.

The questions below reveal a more light-hearted side of the Dean, are a bit less serious, and are more about seeing who the Dean actually is. After dwelling in the madness of his mind, we believe that we have seen into the abyss, with no hope of ever returning. So we will now share the abyss to our readers, to join us in despair. You have been warned, and we are not sorry.

Q: What is the most interesting food you've ever eaten?

Ian: When I've been in trips to China, and the only one in my group who will eat whatever the host offers. And—point of pride or lunacy—it doesn't matter; it could be thousand-year-old egg, a hundred-year-old egg, or whatever they call it, or some kind of squid or sea cucumber, I always kept a straight face and ate everything, toast everything. Some of it tasted just awful! And between toasts, it was just a very interesting experience.

I have two daughters who are teenagers and we adopted them both in China. And so, my wife and I went there two weeks each time, and we've been back three weeks at a time when they were 9 and 11. Of course, I've been, as a mathematician, there four or five times. So I've been there many weeks and I always enjoy it, and I always try to eat whatever's offered. And I'm still alive, so it's pretty good!

SketchED: And a follow-up, if you don't mind—you say that you'll eat anything.

Ian: Please don't take that as a challenge. I will not eat that camera. [*Points to video camera recording the interview.*]

SketchED: Edible food—we'll talk about edible food!

Ian: I won't eat that stuffed animal you have there. [*Points to Kitty, the mathNEWS mascot.*]

SketchED: That technically is edible! So there's a dish in the Philippines, and it's called balut. One thing I've learned is that Filipinos don't tell you what they're giving you to eat; they just say, "Eat it!" or "Oh, you should try this!" and then you have to figure out what it is. So they give you an egg, and it's pretty much hard-boiled from what you can tell, but when you open it up, there's a chick fetus in there. Would you eat it?

Ian: Oh, isn't that charming? It's lovely. Kind of like the haggis of the Philippines, is it?

SketchED: It's a delicacy, apparently.

bunniED: In Vietnam, too—I've had it many times.

Ian: Yes? And you're still alive! You look great.

bunniED: I'm vegetarian now.

Ian: That's a good answer! Please don't—I don't want your readers to take that as a challenge, 'cause I know there could be some really awful experiences for me. But when I've been to China, I've eaten everything that's offered.

SketchED: Do you plan on going to different places to eat different things in the future?

Ian: You never know. I certainly would like to do a lot of traveling when I'm retired.

Q: Are your adopted daughters your only children?

Ian: They are my only children. I'm very lucky to have them. [*Points to photograph.*] There are my daughters, there.

MuffinED: Oh, are they almost university age?

Ian: Yeah, Jen, on your right—that's about a year and a half ago—so she's about 17 now. And Karen's 14, nearly 15.

SketchED: Are they coming to Waterloo for university?

bunniED: For math?

Ian: I don't think so. But they have accepted that there aren't too many math tutors who can even pronounce "trigonometry", so they have to put up with dear old dad telling them some things about mathematics. Right now, Jen is in grade 12, so we're doing a functions course right now, and we'll have the joy of calculus in the winter.

SketchED: Do you teach them how to do math the Proper Way, or do you do what my parents do—or basically what my mom did—"look at this question, here's the answer". And I'd think, "How the hell did you do that?" It's just over my head.

Ian: Well, you know, whenever I say to Jennifer, well, let's go back to first principles, she just rolls her eyes and says, "Dad! Not the first principles! I just want to know how to do it." So we have a little bit of tension about that.

bunniED: Do you know of George Hart and Vi Hart?

Ian: Vi? Logarithms and other sorts of interesting things--yes! My daughter and I have gone through of some of Vi's work. I think we went through logarithms and some other mathematical functions last year. It's a lot of fun. She's very good.

bunniED: I thought it was interesting how Vi chose not to go into math mainly because of how it was taught in school versus how her father taught it. She found it too rigid. She likes math as a concept, but not learning it formally.

Ian: No, and I can understand that. Just looking at what my 17-year-old is doing right now—of course, it gets filtered through her, being in the class and I not being there, she tells me about it when she comes home—that, "The teacher told us to this and that and the other and doesn't explain why!" Of course, when I start to explain why, she says, "Oh, get on with it, dad! Just tell me how to do it!" It seems very clear that anything first principle-like seems to be avoided. In fact, I get concern because, when I work with my children, I encourage them to have scrap paper to make calculations and play, yet they seem both to fight it. They say, "The teacher wants us to present this very rigid thing in two dimensions." There's no room allowed to just play a little bit or for rough work, which I think everyone I know who's successful does. I mean, there are some people with incredibly, rapier-like brains--they can do anything right in their head--but most of us, to do something, we need to play before we get the right concept down.

Q: Is there any question you've always wanted to be asked in an interview?

Ian: No way, I'm not going there. I have to censor myself.

Ian: You asked me [before] about being carried to Orientation. After some initial fear, I found it very uplifting.

SketchED: About Orientation: I was a leader the first time you were ever put on a boat. What exactly happened there? I was out of the loop there, as a front-line leader--all of a sudden we just found the Dean on a boat that was not meant to carry people.

Ian: I just did what I was told. I didn't really care.

SketchED: So someone was like, "Yo, you want to get on a boat, I'll push you through"?

Ian: Sure! In for a penny, in for a pound. I didn't worry about it. In my point of view, seriously—and I'm almost never serious, as you can tell—you've got fifteen hundred first-year students coming to university, almost all of them coming to university for the first time, many of them coming to a new city, a new country. Integrating that many people into a community of 6500 undergrads, 200 faculty members, a huge university and big residences... That's really hard for anyone; it's as scary as heck. And it can seem quite faceless because it's so massive. So I very, very much believe that, no matter how our community seems in absolute numbers, the whole spirit of it is people—everything about any institute is people—and that there are lots of very good individuals here. In fact, I believe--maybe it's me being an

optimist--that, in the large majority, we have really good-hearted people here: students, support staff, faculty members. And not everybody is--people can be unpleasant from time to time on all sides, but I really believe that the majority are really good-hearted people. If a student needs a break, if a student needs some help, there's people here for them.

So having something, a warm-up, that causes people to be integrated in a community, maybe something where they're not thinking about what they're doing and think, "Hey, this is kind of fun. I met ten people today and fifty people this week", you can almost trick people into forgetting that they're lonesome or out of their element, and say, "That was pretty good." I really believe in that a lot. And I think a really good way for that is that an institution, such as a faculty, shouldn't think itself too wonderful. I think if the Dean, and Chairs, and faculty members kind of let down their hair and show that they don't need to be taken seriously all the time, that's good. So if students want to have a pirate boat or some chariot or whatever it is, I don't mind. We're just a pink tie place, for crying out loud! It's good fun. We've got lots of pink ties here, and it's good. I'm happy to go laugh at it and spray pink all over my head and all that. My colleagues—you know, there's twenty colleagues there who are thrilled to hand out ties to fifty students and they're having a whale of a time. If we told the faculty, "Oh, you can't come, somebody else has to hand out the ties", they'd be upset. There's always good people, the students seem to have fun--they go nuts on their selfies and all that, it's great!

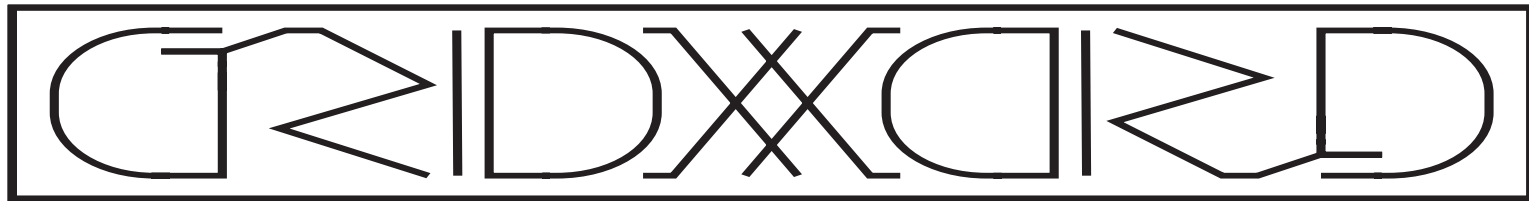
I really believe that Orientation warm-up—nice weather, knowing that people aren't too stressed by work yet—is really good. You can have too much of any good thing, right? If you do something for two days, should you do it for two weeks? Well, no—you shouldn't have four weeks of Orientation—as long as there's some period of Orientation. It doesn't even have to have too much of the serious message stuff. I actually kind of think the serious message stuff gets in the way a bit. As an institution, obviously, it's a very serious business; we give grades, some students fail, some people get good jobs, some people get bad jobs, it's incredibly serious—but showing that we don't take ourselves seriously all the time is a really good message. And, as many of my friends have told me, I kept my immaturity for a reason.

After rewriting all this, horrible memories have started to resurface. I was hoping to forget it all, but yet the continue to come. Maybe publishing the interview was a bad idea? Maybe understanding the Dean was a mistake, and we should have avoided this at all costs.

But we will continue forward, as the Dean had graciously given us answers, and we promised to publish them! Even if it was against his will. We will conclude the interview with the Dean next issue, as we post the last of the questions and answers.

Hopefully, we can get interviews done with the dean again, or maybe professors of the faculty who wish to relay information to the students, and want to suffer as the Dean has. We're making a hitlist—professors beware.

The Editors



gridCOMMENTS

Las islas Malvinas

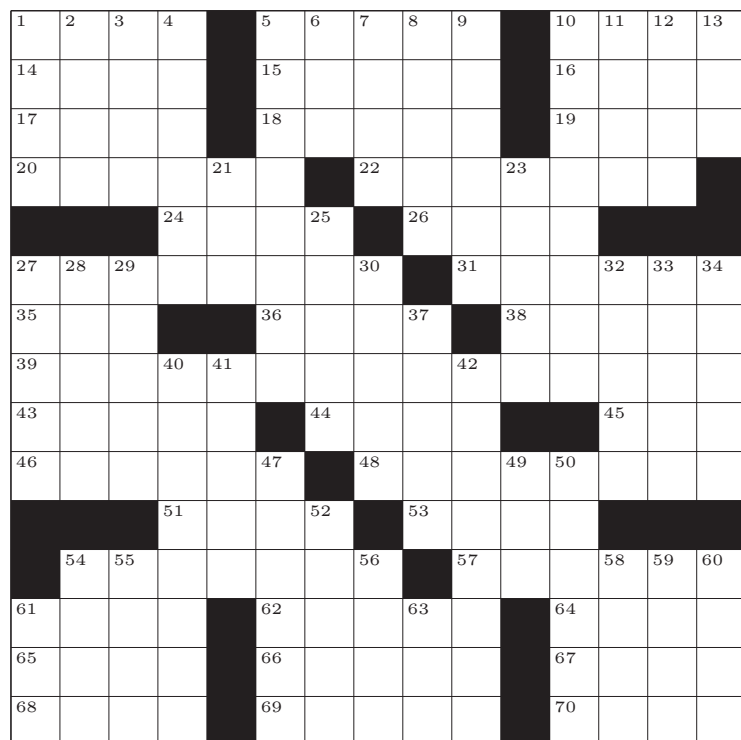
My clues are becoming more verbose. Sorry for the three acronyms. Pretty good otherwise, no?

All five submissions were perfect. Nicely done. The answers to last issue's **gridQUESTION** ("What does the fox say?") were pretty amusing. Rob opted for a Star Fox 64 reference ("I'm doing a barrel roll! Mission complete!") as did, possibly, Travis ("Fire!"). Kevin claims the fox 'says the next **gridQUESTION** is "Who's a good boy?"'. Thanks for the idea! Though Ed's "I don't have an answer" made me laugh, I'm at a point in my life where finite automata feature prominently, so I'm most inclined to select Abraham's answer: "((R|D)ING)*" (see Kleene's theorem; also, Ylvis). Congratulations, Abraham! You may pick up your prize at MathSoc.

Submit your solutions to the **BLACK BOX** (by the Comfy Lounge on floor 3 of MC) by 18:30 on Monday October 27th. Include your name and your answer to this issue's **gridQUESTION**—the best one decides the winner (of a \$5 C&D gift card) in the event of a tie: "What should I be for Halloween?"

Cheers,
unit

This Week's Grid:



gridCLUES

Across:

1. Fruit down under
5. Hansel's second pebble
10. Pig squeak
14. Panache
15. Gretzky, e.g.
16. Test choice
17. "Novocaine for the Soul" band
18. Elite Fourth
19. Green Caribbean bird
20. Cloud Koopa
22. Polish stripper?
24. Pyramid, to a pharaoh
26. Abu Dhabi Commercial Bank
27. Paved paradise
31. Jenny?
35. Chatroom question
36. Cease to exist
38. Emit stomach gas
39. *Jour de l'Action de grâce*
43. Inspiring inexplicable unease
44. Garden of God
45. Sick, yo
46. "We are such stuff / as _____ are made on; and our little life / is rounded with a sleep."
48. Mail sleeve
51. Grade-point averages
53. Chaucer chapter
54. Kitchen flipper
57. Bladed boots
61. Mufasa's murderer
62. Saguaro and cardon
64. The flesh of a young calf
65. Opera solo
66. Pasta house guy
67. Ultimatum ender
68. p
69. Boat butt
70. Embryonic plant

Down:

1. First ship part made
2. Small intestine ends
3. Ambulate
4. Between *in vitro* and *in vivo*
5. Beaten by Erikson
6. ___ *Novosti*
7. Forearm bone
8. The holiest city in Islam
9. Rears and trains
10. A rhenium discoverer
11. Steamy metal?
12. In the altogether
13. E.g. E_h
21. The Onion Router
23. Obama's assistant Tina
25. Gorge
27. Having gorged
28. Raymond IV
29. Sound loudly
30. "_____ with me; fast falls the eventide"
32. Latin "I hear"
33. Under your hair
34. *Modus operandi*
37. Happening
40. From the Falls
41. Not untidy
42. "Lots of new friends"
47. Hollandaise and tartare
49. *Cervus canadensis*
50. Arborous garb?
52. Author's angle
54. Peer into an orb
55. French bread?
56. Teen bane
58. Prefix meaning "over a distance"
59. Chunky Kong "can pick up a boulder with relative _____"
60. Toboggan + runners
61. Fret or hack go-with
63. ___ *à l'arc*

Send us your articles,
profQUOTES, grid solutions,
and questions to the Dean to
mathnews@gmail.com. or to the
BLACK BOX on the third floor of
the MC!