MATRIX REVOLUTIONS

Another Matrix movie...
Another issue full of bad, bad puns...

*look*AHEAD

Blood feud incites riot at *math*NEWS production night.

Editor quits

Albeit the low attendance to this week's production night, *math*NEWS still managed to raise enough controversy to incite a blood riot between a couple editors. A lengthy debate was capped off with threats by IMacK to "abandon the bastion in favour of a one-week reign of terror as an Orientation Director". Current editors Krease and Louis only stated that "Ian's Mom is not the biggest thing that's ever left us. We'll be back on our feet in no time". Alas, they spoke the truth. In a MathSoc meeting just the next day, IMacK announced to the attending crowd that he was resigning his *math*NEWS editorial position. Krease quickly found the nearest sucker and appointed him *math*NEWS Editor In Training.

The sucker was unavailable for comments, as he was rumoured to be slaving away in the *math*NEWS closet working on the impossible task of merging 4 wings into 1.

Beatlemaniac,
*math*NEWS's newest Editor-In-Training
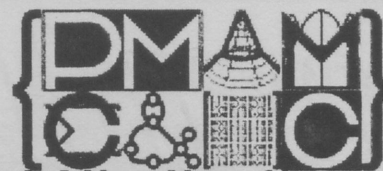
Short Attention Span Math Seminars

Talks on November 20

Marvelled by matrices? Astonished by asymptotics? Enthusiastic about exponentials? Then check out the Short Attention Span Math Seminars on November 20, where you'll see math students give talks about just how cool math is.

The SASMS are an event held every term by the Pure Math, Applied Math and Combinatorics & Optimization Club, and are a series of short (twenty-five-minute) talks given by math students on a wide variety of topics. This term, they will be held November 20, starting at 4:30 p.m. in MC 5158. Not only to you get to see some amazing talks, but there'll be some free food as well. Some of the currently scheduled talks include:

• Magic Knight Tours
• Monte Carlo Integration
• Fourier Series
• Orbital Mechanics

A detailed schedule of talks will be posted around the MC closer to the event. It's not too late to sign up to give a talk, either; if you want to give a talk, then e-mail your topic to pmclub@student.math.uwaterloo.ca

Craig Sloss & Nicole Wilson
PMAMC&OC Ministers of SASMS

Prof Chalkboard Erasing Algorithm (PCEA)

Motivation: In a constant struggle for efficiency and order, a need has arisen to both erase chalkboards efficiently and create consistency among chalkboard users.

Some of today's profs are not only confusing while giving lectures (not to mention that some don't yet even speak the same language as the students (ie: English)) but add extra confusion to their lectures in the random and erratic way they erase chalkboards.

An efficient chalkboard erasing algorithm creates a sense of predictability for students while being efficient in cleaning chalkboards, thus eliminating a source of confusion.

1. Begin with sufficiently clean eraser.
2. Begin cleaning chalkboard from top left corner.
3. Using vertical hand motions (upwards then downwards continuously) move from the top left erasing section (defined as "area needed to be erased") and move to the bottom left erasing section.
4. Once a vertical section has been erased move to the next leftmost erasing area and erase, by repeating step 3 until all erasing sections have been erased.

Technique: Try to perfect the PCEA algorithm by not leaving any writing unerased.

Note: This algorithm can also extend to whiteboards and their erasers.

Funshine Bear!!

Frosh Cornered

Why didn't you vote?

Yeah, that's right! I'm looking right at you, not the guy behind you. Why didn't you vote? Although I suppose it is bad form to ask a question that I already know the answer to, so I guess I'll tell you the answer rather than wait for you to tell me. Also, you really can't tell me, since you're reading this on a piece of paper, but that's beside the point. Let me tell you why you didn't vote.

Your vote doesn't matter. Yup, it's what everyone has been telling you is not true. You knew it all along though, they couldn't fool you. Your vote doesn't matter. They actually search through and take yours out before they count them (I'll bet you didn't know that)! All right, they don't really take any out before they count them (at least not to my knowledge), but in all seriousness, the population of this city is about 100,000. Is the ratio of votes going to be changed if one vote is removed from that? Heck no! 99,999 out of 100,000 votes are going to yield the exact same result as 100,000. Sure the ratio will be a little bit smaller, but it won't change anything.

So don't ever bother voting again, there's no point.

You know, I did a survey earlier today, and I found something very interesting. Did you know that 100% of the population is exactly six feet, seven inches tall? It's true, I did a random sampling of the population and that's what I found! What did you say? Did you ask me how many people I sampled? Why would you ask a silly question like that? Didn't we just go over the fact that removing one person from your sample of representativeness doesn't change the overall result of the ratio? Yeah, it's right up there. Did you forget already?

All right, something's wrong here, because I'm not six feet seven inches, and I'm pretty sure that you're not six feet seven inches. But we just determined that removing one person from your sample doesn't change your ratio. So what went wrong?

So let's cut the crap now, we're all Mathies here (and even if you're not, I'm sure you are capable of comprehending the fact I'm about to present to you). The sum of a series of infinitely small numbers can in fact be a very large number. That's the case with the vote. While it is very true that your vote counts for next to nothing (and in all practical purposes, it does count for noth-

ing), by not making it, you're adding just a little bit more onto that ever growing sum, and well, we all know about the straw that broke the donkey's back.

You still don't think it's worthwhile to vote. Well I've probably convinced some of you with this article, but some will remain unconvinced. I've been talking to many other people today (I should probably mention this, I know the election was held last Monday, but that's when I wrote this article, so when I say today, I mean last Monday). There's one reason I've heard as to why people don't vote that has nothing direct to do with the reason I talked about above.

This reason is that there was no one good to vote for. The party in power was crap, the opposition was crap, the only party remotely worth voting for was some dinky little thing that never had any chance of getting in. So they were left with a choice of casting a completely useless vote towards a party that never had a chance, or a party that had a chance of getting in, but was a terrible party to vote for. Now ask yourself, how many other people were thinking the same thing? I'll bet you it was a lot. In fact, over half of the population does not vote in any given election. Most of these people do not vote for this reason. What if all these people (including you) got out and voted for the party they really wanted to vote for. I'm sure any self respecting Mathie will realize that any party that gets over half of the vote is guaranteed a position of power after the election. See what you're missing out on?

So make sure you get out and vote next time, because even though you can't make a difference, all the other people who finally realize what you just realized can.

But not without your help.

Keslen
CorneredFrosh v3.0

Banks Buying Campus

Royal Bank and Bank of Montreal duke it out

The Bank of Montreal recently donated $75,000 to build a new classroom in Renison College. "This is a substantial investment," commented the Renison Principal.

At about the same time, the UW received a $1,000,000 donation from RBC Financial Group to "establish a modern facility to advance the cause of electronic learning". UW is using this money to build the "RBC Information Commons" - a high-tech study space - in the DC.

The two banks deny they are competing with each other; an RBC spokesperson believes the contribution is "an investment in technology and education that we know will serve thousands of students on campus for years to come." Of course, that's what Quest was supposed to be - wasn't it?

At least this time it's not Microsoft.

Krease

New Orientation Directors Selected

Group Stages Bloodless Coup; All Smotherings

Hey ho everyone, this is Ian, one of the new Orientation Directors for frosh week 2004. Myself, along with Samir, Erika, and Brandon have just been picked to ensure that the next frosh week lives up to the high standards that we expect from Mathematics Orientation. It occurs to us that we may not be able to handle over a thousand frosh all by ourselves, so we are in the process of raising a small army of frosh leaders to share in our fun. So if you are interested in being a frosh leader for 2004, pick up an application form outside the MathSoc office RIGHT NOW! Keep an eye open *[Just one eye, you don't want to walk into stuff. Sorry, I won't be editor for a while so I wanted to get this last comment in — iEd]* for information about the **Orientation Information Session** happening sometime next week. We'll be sure to answer any questions that you may have about being an Orientation Leader.

Ian W. MacKinnon
Samir Patel
Erika Harrison
Brandon Gilbert

Microsoft's Evil Agenda Revealed! (Again!)

Investigators into Microsoft, the company that brings good wholesome OS fun to at least a dozen computers around the world, were shocked today to learn that Windows may not be as good or wholesome as originally thought.

Beneath a pile of ancient scrolls and tomes behind a secret wall in Bill Gate's office was found a single, bloodstained stone tablet of blackest obsidian. On it, in glowing runes, was found the incantation for the summoning of Widnoz, the darkest demon of the infernal realm. Sensing a connection between he who should not be named and the helpful runner of some people's chat programs and web browsers, a close scrutiny of the Windows source code was conducted. Buried in the assembly was found code that, when disassembled, reads something like this:

```
demonic void summonWidnoz(int users)
{ if (users = 17 && time.isRight(summoning))
  { demongate.open();
    Fire.rainFireFromHeavens();
    World.fallIntoDarkness(100000);
    DarkLord darkLord = new Widnoz();
  }
}
```

"We were incredibly lucky," says the chief investigator. "Arcane lore says that Widnoz is the most hideously evil thing to have ever existed. And there's a bug in isRight(Time) that makes it always return true. If Bill Gates had ever succeeded in getting seventeen people to use Windows at the same time, Widnoz would have been brought forth for untold chaos. Luckily, Windows sucks too much for that to ever happen"

Some Thoughts On Sets

Sometimes people tell me strange things if I tell them that I am in Math. I recall one of my high school teachers (a CS one, no less) saying that university-level math is "much too theoretical". This probably has something to do with this "abstraction" thing I have heard so much about. Regardless, it seems the general public's thought is that math is something that has no practical everyday use, something which the average person, should never have to do: that's why calculators and computers were invented. I beg to differ. Concepts learned here are use repeatedly, almost every day. Take sets, for example. Here's an example of how a random Waterloo Math Student uses sets, in a practical, non-mathematical, everyday way.

It is 3 AM. The student sets his half-finished, wholly-illegible assignment down on his desk. He gets up and sets his alarm for 8 o'clock. Then he sets himself into bed, and sleeps for a set of 5 distinct hours. He then wakes up and sets out to make it through his day. When he gets to lecture, he sets himself into his seat and listens and scribbles down sets of definitions, properties, theorems, proofs, lemmas and examples that are set out before him. Halfway through the lecture, he sets his pencil down, sets his head into his hands, and, in a deep sigh of incomprehension and general apathy, sets his brain into the off-position.

See? How useful. Whoever said this stuff wasn't practical?

The sin(ic)

Gates was quick to dismiss the allegation. "I don't know what these people are talking about. All the dark arcana and necromancy I've consulted says that Widnoz isn't even that big of a demon in the infernal realm. Deos and Quebssak easily dwarf his power, and it's not like I've tried summoning them." He then muttered something under his breath about someone not returning his calls.

Steve Jobs, CEO of Apple computers, commented "I don't know much about Microwhatsit or anything, but hey, you should buy an iMac. Come on, it's colorful! And round shaped! Please! I'm desperate over here! They're gonna repossess my house!!" He then was led off, sobbing softly to himself.

Unix gurus were ecstatic about the discovery. "Now that people know the truth, perhaps our tireless struggle against the agents of the infernal realm will soon be at an end. We've fought this battle for untold generations, and while we've won some battles, our weapons of sword and mace and regular expression are having less and less power over the years."

When asked about fixing the code, Gates replied, "Absolutely. I don't want anyone to think we'd try to summon Widnoz at the wrong time. Debuggers will be sent to fix isRight(Time) immediately, and the lax coders responsible will be tortured for an eternity for their almost disastrous blunder."

SheepNine

Rock-Paper-Scissors: Supreme Arbitration Method

Well, as you might have read earlier, in "The Girl"'s article, there is a wing competition at the Bomber every Monday. If you don't know what I'm talking about, her article comes later. Or she's weak.

Well, the Math team and the Software team often share a table, during the lonely hours where it's just you, a few friends, and 5 cold wings that can't be finished. As is the nature of mindless competitions, more competitions often arise. Mindless ones. And so, when someone claims that they are the Centre of the Universe & Greatest Person Alive, this must be challenged. By the best and only method possible: ROCK-PAPER-SCISSORS (RPS). Best 2-out-of-3. The Supreme Arbitration Method.

So I challenged the maker of this claim, and with the Gods and the kiss of Lady Luck on my side, was able to win a total of 5 dramatic & dynamic best 2-out-of-3 Rock-Paper-Scissors trials to win, re-win and secure my position.

And soon my friends, I will offer you and anyone you know one opportunity to win this positions away from me. Soon, my friends, there will be a Rock-Paper-Scissors competition to decide all Rock-Paper-Scissors competitions. Here's the deal:

- Best of 999 matches
- You have access to match history
- Draws are redone, until a winner is determined
- Round Robin
- More details coming soon

So my friends, get out your favourite programming language and start writing ... Coming Soon: Rock-Paper-Scissors Computer Contest!!

Robb Effinger

A Look Back at the Municipal Election
Student turnout all-time low

You'd think that a candidate that has strong ties to students of the Math faculty would get votes from this core. You'd also think that a candidate with no platform (at least nothing readily available) would not get a lot of votes. Think again.

To a shocked and disappointed room of Stephen Skrzydlo volunteers that had made significant donations in time, effort and spirit, Mark Whaley was declared winner of Ward 4. Shortly after airing his victory speech that somehow included the metaphor of using an ancient canoe to paddle through rough water (what's this guy smoking anyways?), Rogers decided to announce that "we're not ready to declare any winners in Waterloo yet". Not ready to declare winners? It seems to me like you did. Not only that, but it was a candidate that thinks spending $30,000 for an international trip to Holland for a gardening contest that has done little to nothing for our community is a good investment of capital finances. What's next? Is Waterloo going to be the first city in the world to open a rock garden or something crazy like that?

Adding insult to injury, Ernie Dyck got almost 3 times as many votes as Stephen. How does this happen? Did people just vote for the person with the best sexual connotation in their last name? This is a person that was not able to stand at a debate, or answer questions asked by neutral parties.

In short, I believe the problem lies with students not caring. I was part of a team of Skrzydlo supporters that went door to door offering FREE rides to and from the polling locations. The general response was:
1. I'm not voting
2. I'm not interested
3. I haven't heard about it

Let's deal with these points one at a time:

1. *I'm not voting*
Ok, so this is a right. But by choosing to exercise this right, you're also relinquishing all rights to complain about what's being done in government for the next term. Why do I say this? Because you didn't want anything to do with it. So when property taxes increase/by-laws are created, you don't deserve to have a say in it. You don't deserve to be complaining about them.

2. *I'm not interested*
Ok, but are you interested in how much you're paying for rent? These two items are largely related. Your rent (and those of your housemates) must cover property taxes and other expenses BEFORE your landlord takes his cut of the profits. So, tell me again, why are you not interested?

New Word in English

confust. verb. Arrising from the combination of confused and frustrated. Used to describe both emotions in short.
"I get confusted doing math."
"Stop confusting me!"
"This proof is confusting!"

3. *I haven't heard about it*
Have you been locked in a room or something? It's like you've decided that the only thing to do is ignore anything that's affecting you. Did you not see "Elect (random candidate) For City Councillor" signs on your way to work/school/party? Or did you just decide that ignoring these signs was a way to get information. I, personally, helped inform *math*NEWS readers with this dilemma just last issue. I guess the only real way I can see people not having knowledge of this election is their being living in a cave and not leaving for the last month.

So, you've detected the cynicism in my article (by now, I really hope so). I, unfortunately, cannot say that I voted for Stephen, but at least I can say that it wasn't on my ballot. People that know me are aware of the fact that I was wanting to vote Skrzydlo. Hell, I'd have gladly cast the 152nd Skrzydlo ballot instead of casting my ballot in Ward 2. At least things went well there. I mean, imagine what council would have been like if both Whaley AND Greenwood-Spiers had been elected. It would have been something along the sorts of: "How can we make life crappier for students while still looking like we care about them?".

In closing, I really think that students turning out to vote would have made this election more interesting, and if they had been informed, I'm sure the outcome would have been grossly different. At least I hope so.

Beatlemaniac

Waterloo Ranked #1 In Listing Of Universities With 'Waterloo' In Their Names

Shortly after placing second in the "Best Overall" list in the annual Maclean's University Rankings, the University of Waterloo has risen to the top of a self-sponsored listing of Canadian universities with the word 'Waterloo' in their names.

The university placed first in every one of the five thousand categories used in the study, including "Best Dressed", "Most Vowels", and "Most Guys Named Ted". The administration was quick to praise the results of this study. "This ranking clearly illustrates that the University of Waterloo is still the best of a very elite group of schools. The University of Toronto may place higher in a few aspects, but it's not even in the top ten universities with 'Waterloo' in their names" stated a press release.

Critics were quick to attack the validity of the study. "It's absolutely ridiculous," claims Alfred Pedantik, a representative of the University of Toronto. "The categories are completely meaningless, and they aren't ranked against anybody else. What is this supposed to prove?" Mr. Pedantik refused to comment on rumours that his school will be changing it's name to the University of Better-Than-Waterloo in order to improve it's ranking on next year's list.

But Waterloo isn't fazed by criticism of their ranking. "I don't understand how anybody can question the results of this study. After all, we were ranked number one in 'Creating Unbiased Studies'".

Dan Woodley

A Look Into the Dark Corners of My Mind

-OR- Where the Hell are the Other mathNEWS Writers?!

So there's three people here writing *math*NEWS as I type (which, through the magic of preproduction, is in fact several days BEFORE you're reading it), and we have to write it anyway. Seems the other writers wail and moan that "I have a calc exam," or "I'm campaigning," or "I've been shot! Get help!" as if those excuses cover their complete lack of work ethic. I'm here, aren't I? I'm writing, AREN'T I!? Nevermind the fact that I've been chained to this unix terminal in the dark dungeon on the secret subbasement level of the MC.

So, today's (last Monday's) issue is going to be a great one, as it is going to have a much higher percentage of me in it. That's right, I'm vain. I'm also abusing my wonderous superhuman *math*NEWS powers. Just imagine: you can write anything, ANYTHING you want, and hundreds of people are going to read it! Think of the brainwashing! Speaking of brainwashing, We heRe wrITing this issuE Feel that yOu should come aRound the MATH buildiNg and typE up some Wonderous articleS for us. Now that that's out of the way, I'm going to take the time to talk all about me. Me me me me me. *[Tired of this already? Come out on Monday, November 24th and write your own article! — KreasEd]*

For those of you that don't know me (and you should feel sorry for yourselves, I'm really great), I'm a 2A Software Engineering Undergrad here at this great University. I'm tall, I'm loud, I'm almost exactly average (if class deciles are to be trusted), and I write for *math*NEWS. You might remember me from such *math*NEWS articles as "Isabelle v. 2.0", "something something worst engineering flop EVER", and some other article I don't remember the name of. I eat chicken wings on a professional basis (come to the bomber Monday nights from 3–12 and look for me!), and can string together characters from the alphabet of [az] *[I'm pretty sure he means [a-z] here; there aren;t many words composed solely of 'a' and 'z' alone — EmEd]* to form words in English that conform to the grammar rules of English (stupid CS 241). Also, I'm the center of the Universe.

Yup, that's right. The center of the Universe.

Right now, you might be thinking "that's impossible!" for many reasons, all of which I'm going to disclaim now. For those of you that think YOU'RE the center of the Universe, let me inform you that it only seems that way because you're really close to me, and that I'm so much prettier than you and I dress nicer too. Baymn! For those of you that claim that the center of the Universe is in fact several trillion miles away, it only seems that way because I've decided to orbit a spot trillions of miles away instead of sitting still in space. For those of you that want proof, consider this: when I go to class in the morning, the sun rises. After class, I go home, and shortly thereafter, the sun sets. Coincidence? You be the judge.

Being the center of the Universe takes hard work. I have to constantly revise the rules of the Universe, since people keep finding loopholes. Three times, THREE times you people have come up with back doors around my carefully chosen speed of light. Stop it. If I wanted you people going faster than the speed of light, I would have put it in the beta. It's not going to happen. And for those of you trying to come up with "unified theories" and similar dribble, good luck. I'll give you one hint though: Newton was WAY off. Think sine curves. Everything can be defined by sine curves.

Now that you've accepted the fact that I'm the center of the Universe (and if you haven't yet, just read the last two paragraphs again a couple more times), let me move on to other things. But what other things? What would you, oh gentle *math*NEWS reader, like to hear about that all other mathies would also like to hear about, thus maximizing my impact on your lives? Factorials.

Yes, factorials.

Factorials are everyone's favourite operation. They make your boring probability question exciting. Nothing increases faster than them. You can't actually derivate them. Factorials are one of my favourite creations. Because I did create them. Let Leibniz have his integrals. Factorials are much better and more useful, and that's because I, the center of the Universe, invented them. Here's some factorial fun for you people to try:

- Easy: Calculate $n!$ for all integers n
- Meduim: Calculate $n!!$ for all integers n
- Hard: Calculate $n(!)^x$, for all integers n, x
- Harder: Re-do easy, medium, and hard, but do it for all real values of n and x
- Even harder: Re-do harder for all complex values of n and x
- Freakishly hard: Do even harder, but on a finite amount of paper
- Hardest: Convince a mathematician that the work you've done is correct.

Send in the answers to me via that BLACK BOX—like thing near the comfy. I may or may not give a prize. Isn't that incentive enough?

That's enough of the dark corners of my mind now. Can't stay in here too long, mind you: you may never get out. So enjoy today's issue, and keep a look out for more articles by me! They're good!

SheepNine

Top Eight Reasons For Missing The *math*NEWS Production Night

1. I thought the Calculus exam was the one with the free pizza.
2. I have an irrational fear of typing.
3. My talents are better used fighting evil.
4. My talents are better used causing evil.
5. *math*NEWS must be stopped before it grows too powerful and destroys us all.
6. Nobody can stop me from proving that I can eat more wings than other people.
7. Nothing I write makes any sense purple submarine hippo.
8. Writer's block has rendered me... something.

[Seriously though; come out to mathNEWS production nights - you get to hang out with us, eat free pizza, and get published. Our last production night this term is Monday, November 24th - Come out and help! — KreasEd]

Dan Woodley

What's Your Man Worth?

Now here's a question that has been pestering the general mathematical populace since the mid-70s: how much is the $6,000,000 Man REALLY worth?

I mean, really, really worth. As in worth. Not just six million dollars… that would be too obvious. Accounting practices have brought enlightenment to us simpletons in geologically recent years, and from now on we must take into account… uh… accounting.

Other important questions, such as "Where's the beef?", "Who took my cheese?", and "Which country's next, Bush?" will have to wait for future articles, because many more people are interested in the bionic man. Cheese may come next. Yes, even cheese comes before Bush. For now, we will just calculate the present (past) worth as well as the future (present) worth of the $6,000,000 man. You can thank those darn wacky accountants for the silly tense changes.

Since little to no research was done for this article, many assumptions must be made. Firstly, that there will be no depreciation on the value of the technology in his mechanical body, since I hate depreciation. My computer is still worth $3000, no matter what any of you say. Secondly, the annual maintenance and upgrade costs will remain constant over the expensive man's lifetime. This annual cost, according to The Girl, will be $500,000. Also according to The Girl, the $6,000,000 Man (referred to hereby as SixMan, for nonsensical purposes) could earn about $50 per night doing certain… lucrative… "jobs". Thirdly, I have assumed a 12% annual interest rate (according to MSCI 261, this is a normal number… and besides, it's one of the tables in the back of the book, so I don't actually need to do much math). At this interest rate, SixMan could earn about $353,970 per year (or per annum, if you're anal). Thus, total annual costs come to a grand total of $146,030.

These assumptions allow us to calculate the actual worth of SixMan, at his conception, since all accountants know that his "worth" can't be $6,000,000. Since we have an initial cost, and an annual cost, we can use some simple accounting formulas to get the "present" value of SixMan. As mentioned before, accountants have no sense of time, so "present" can really mean any time you want it to. Like the creation date of SixMan. To calculate present worth from annual costs, accountants use pain. That's right, "pain" is used to calculate present worth. It's actually a formula written as $(P/A,i,n)$. They also have an equation they call $(F/A,r,T)$, but that's beside the point.

Using pain, we can calculate SixMan's present worth to be -6,000,000 - 146,030 * $(P/A,12\%,30)$, which turns out to be about -$7,178,176. Clearly the makers of SixMan did not know what they were doing… how did they ever plan to make a profit from him? The "future cost", being what the so-called "Six Million Dollar Man" is actually worth today, can be calculated by -7,178,176 * $(F/P,12\%,30)$, which is -$215,058,153. Assuming that he's still alive today, this would be how much he is worth.

One can only assume that SixMan has long since gone bankrupt. I would personally assume that he had to get rid of all of his worldly things, and since he himself is a thing, he would have sold his body. And seeing as selling his body was one of my assumptions, I can gladly say that this article has thoroughly proved nothing.

But you know, I've learned something today. I've learned that no matter haw many times you buy and sell new SixMen, you can only end up losing money. Because bionic men can't sell their bodies for enough money at any point in their expected lifetime. Now, bionic women, on the other hand…

brought to you by The Dutch Sheep

My Week From Hell

Have I told you about my week yet? I probably have, I've told everyone who will listen to me. Of course now it's over since it's Friday, but when I wrote this on Monday it was still brand spaking new. Let me break it down for you:

Monday: Calculus Midterm

As of Monday, I had to do a chapter and a half worth of problems in preparation for this midterm.

Tuesday: Sociology Midterm

As of Monday, I had to read a total of two chapters (and they're really long chapters) in preparation for this midterm.

Wednesday: Algebra and CS Assignments

As of Monday, I had to completely do these assignments. I hadn't started them at all.

Thursday: Philosophy Assignment

As of Monday, I had to completely do this assignment. I hadn't started it at all.

Friday: Ahh, the weekend at last!

Finally, it's all done. Smooth sailing until Finals.

So what was the point of this article? Not too much. I really just wanted to tell anyone and everyone who will listen that my week is so terrible. Of course, some people will look at this and scoff at the light work load, but some will be able to get a sense of "it could be worse".

In any case, have a good weekend!

Keslen

mastHEAD

The little production night that could

So due to various events (Calc 1 midterms, municipal election, general apathy) we had a super low turnout for *math*NEWS production night this week. For a good portion of the night, three of us soldiered on trying to make enough *math*NEWS goodness for you, our adoring public. I like to think we succeeded. Of course we did eventually get more help from an adventurous few.

After our mini-production night we headed over to the Bomber for a huge heaping of cheap wings. Eventually, as must happen at every *math*NEWS production night, a question emerged. And not just any question but the *mast*HEAD question. So here in some particular order is the crew's responses to "What are your favourite kind of wings?": Keslen (Well, I spent the evening eating Medium, so I'm going to go with Suicide. Huh?), Robb Effinger, Centre of the Universe & Greatest Person Alive by Best 2-out-of-3 Rock-Paper-Scissors trials (Spleen), SheepNine (Hot, naked & sauced up), IMacK (Skrzydlo), The Girl (Anything that can still be squished into my stomach at the end of a Monday night), Dan (Dodo wings).

Emerald (Tofu!)
Louis (Without feathers)
Krease (I like breasts better)

Wings of Doom

Rumour has it that not many people have shown up for *math*NEWS production night. Well, I can't really vouch for that or not, since I have shown up late, and can only stay for a short while. You see, my fellow students, these past few Monday evenings I have spent my time at Bomber, competing in an awesome wing contest. In fact, most of this article was written there, on a napkin. Funny that, I can even write for *math*NEWS when I'm not able to make it to production night! (Let this be a lesson to you all) The poor napkin had been through a lot; from on a table with wing goodness all over it, to down Lino's pants. Don't think about that too much, you'll get nightmares. And to think, I am having to touch it now to copy it out. All for you. Well, and for *math*NEWS.

Anyway, in the name of all that is good, my stomach tries to hold as much as it can for this wonderful contest. Basic rules, you may ask? From mid-October till December 2nd, teams of four get together and eat as many wings as possible. Team with the most amount of wings eaten in said amount of time, wins their lightest members' weight in wings! (only available to eat on Mondays, 3pm-12am) So my little team, as of right now, is in second place! Yay team VIDEO NO INPUT! You see, I am the motivator of this team, if I can eat x amount of wings, I see no reason why they can not!

And now, I should introduce this awesomest team of mine - and to protect their innocence, I shall use our nicknames for our team. "The", "The", "Eat More", and "Data Pimp". From here on out, let us be known as T1, T2, EM, and DP. It's just simpler for me, and I'm sure you can follow.

So, my fellow friends, I pass the knowledge of eating lots of wings on to you, and hope our amusement of stupid competitions amoung friends be your amusement in class, and let it pass your time happily. Let you read on to my other articles hidden throughout this page of *math*NEWS, and share the adventures of eating wings. Enjoy. Yum, yum.

Day 1 - Start of the Goodness

It all starts out innocently enough. Just a bunch of friends, going out for some lunch late one Monday afternoon to bomber. It so happens bomber has a special of 33 cents a wing. Why not? Not a bad deal, we think. And we proceed to order about 20 each. The next thing we know, bomber staff are asking us to make a team of four. Sign up? Sure! Doesn't cost anything, and it wouldn't hurt coming here for lunch once a week, we think. And so the team comes to be, and the story begins. Our poor uncontaminated stomachs, and our full wallets were in for a beating.

Being as smart as they are, for every 10 wings that your team eats, a pretty little sticker gets put up on a poster. Sweet! Right before our very eyes, we get 8 awesome stickers added above our team.

It's on. We're doing great. We want to keep doing great. We agree to come back later that night. Lesson number one - don't get addicted to winning, We (or rather, mainly me) decide that we need to show the other teams how good us Mathies really are! Coming back was our first mistake. When we left, we were in first. Now, we are a few wings behind. A new 'law' gets set for the team - "One must eat a minimum of 30 wings each week." Things can only get worse for the ill-fated team.

Day 2 - A new pain emerges

The second day, a second chance at getting first. Going to Bomber with high spirits. Realizing first place team consists of four monstorous guys, lightest one weighing 265. Our heaviest member doesn't even compare. We have our work cut out for us! Their lead over us is depressing, I won't even mention it here.

Today we have a team of SoftEng students with us. Perhaps hearing of the Mathies being able to devour wings like gods, they want to try to challenge us at this wing eating contest. So is the start of "The A Team", members also to be left anonymous to protect the innocent.

Now, there is one thing you should note if you ever intend to go into an eating contest. I wish someone had of told me beforehand. Start out slow. Don't eat on a completely empty stomach. And don't, under any circumstances, play DDR afterwards to mix up all those wings. Nasty combination, let me tell you.

It seems all that eating over the past week has paid off, I was able to eat 10 more wings today than last week - without feeling nearly as horrible!

Day 3 - Cursade of the wings

Good news for the team - although the first place team leads by a huge amount (over 100 wings), they will no longer be eating nearly as much as they have been. Due to unforeseen circumstances, team "Love Handles" has lost one of its players. This is bad for them, but good for us! We have a chance to catch up! Also, there are rumoured prizes for 2nd and 3rd prize. Yippee!

So today is the day - competition galore! Throughout the past week, taunting between my team has steadily increased. Who is man enough to eat the most wings? Will the girl of the team be able to out eat her fellow teammates? Reading on is the only way to find out...

The evening starts off good, with myself pulling into the lead with a small 20, waiting for the other teammates to arrive. Unfortunately for me, EM and T2 arrive, and quickly devour 20 each, not allowing me to keep my lead for very long. Men. How can they eat so fast?? Anyway, not too long after, we all manage to cram another 20 down to feed the devils in our stomachs. I think I angered mine, instead of making it happy. Haven't I learned yet? Obviously not, since I have a couple weeks to go yet.

So after the 120 wings so far tonight, my team pulls back into second place. (go team go!) It's funny though; how come as soon as you get into a position like that, how quickly it is taken from you? So not fair! Back into third we go. Thanks to my teammates, we recover from our plateau. Yes, that's right. I quit after the 40 - couldn't handle it. Guess I'm not a real man. Too bad. Oh well, nothing wrong with that!

Point to note, I now have a bet going on with The Dutch Sheep, off the A Team. If he manages to make half of my team not show up two weeks from now (ie - next *math*NEWS production night), then I have to eat 20 wings for his team. Otherwise, he has to eat 20 wings for my team. It'll be sure fun to make him lose at his own bet. (muh-ha-ha!)

Curious as to whether the mathies will be able to take hold of, and maintain, second place? Will The Girl be able to outeat her companions, thus restoring order to the universe? Learn all this and more in your next issue of *math*NEWS!

The Girl

Plan Modification/Application for Internal Transfer Form

University of Waterloo
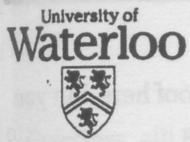
Office of the Registrar
Waterloo, Ontario, Canada N2L 3G1
Call: 519-888-4567, ext. 5378
Fax: 519-746-2882
Web: registrar.uwaterloo.ca

Instructions

1. Print in block capital letters unless a "✔" is required.
2. Sign and date the form below.
3. Attach a résumé of your work experience if you're applying for a Co-op Plan and were not previously registered in Co-op.
4. Make a copy for your records, and submit the original Plan Modification/Application for Internal Transfer Form and résumé (if applicable) to the Office of the Registrar.

Note: Normal processing time is 2 weeks, but may be subject to a review of your most recent academic performance.

Please check one as appropriate

☑ Plan Modification (complete this side only)
☐ Application for Internal Transfer, e.g., Faculty transfers (complete both sides)

UW Student ID Number	Surname
2 0 0 4 7 0 0 2	Rotch

Given Name(s)	Email
Mike	go spam yourself!

Mailing Address	Home Phone
37 Street Ring Road	725- Something, Something, 5-7

| City Waterloo | Province Liberal Turf | Postal Code who cares? | Business Phone I didn't get a co-op job |

Requested Academic Information – Include all majors, minors, options, and specializations under Current and Requested Academic Plans.

Current Academic Plan

B. Math (CS)

Program Type	Honours ☑	4-Year General ☐	3-Year General ☐
	Non-degree/Post-degree ☐	Exchange ☐	
Form of Study	Regular ☐	Co-op ☑	
Campus	UW ☑	REN ☐	STJ ☐
Effective Term	Fall ☐	Winter ☐	Spring ☐ Year too damn long

Requested Academic Plan

B. CS

Program Type	Honours ☐	4-Year General ☐	3-Year General ☐
	Non-degree/Post-degree ☐	Exchange ☐	
Form of Study	Regular ✔✔✔	Co-op ☐	
Campus	UW ☑	REN ☐	STJ ☐
Effective Term	Fall ☐	Winter ☐	Spring ☐ Year 4 EVER!

Reason for Request – Indicate your academic interests in the Requested Plan and explain the reasons for changing your Plan. Attach additional pages as necessary.

Math is tough, dude! Some Guy Said B.CS was easier.

Mike Яotch — Student Signature — age: 20 Oct. 13, 2003 — Date

Plan Modification Approvals – See overleaf for Internal Transfer Approvals

☑ Admit ☐ Refuse Comments _This student clearly has the slacker attitude we're looking for in the B.CS program._

Random Faculty — Department Approval Signature — Oct. 17, 2003 — Date

Co-operative Education & Career Services Approval Signature (if applicable) — Date

*prof*QUOTES

"Do you know how many wriggly things are crawling around in you? You're a rich food source!"

MacKay, STAT 362

"We can do a survey to count the number of dustmites in your pillow.

MacKay, STAT 362

"Now, I have to warn you — what I write now and what the course notes says is different: I write σ*sqrt(1/n + 1) but the course notes says σ*sqrt(1 + 1/n)"

Cherry, STAT 231

[Second cell phone rings in quiet classroom] "Doesn't your mom know you have class right now?"

West, CIVE 204

[Speaking of his undergrad career in Russia] "Usually by the end of exam period some people started going to AA meetings."

Potapenko, CIVE 221

"Now you're sitting in R³, minding your own business, and suddenly someone pushes you in a continuously differentiable way."

Marcoux, MATH 247

"You can't lie to Java. If you lie to Java, all of a sudden it will scream and explode."

Nafees, CS 133

"You look like you have a good mathematical proof here, but you might be on drugs."

DeVidi, PHIL 359

[Handing back a midterm to a student] "This, this paper here, I must say something about this. This is the worst handwriting I have ever seen in the last 5 years."

Nica, PMATH 351

"Now I understand why you never take notes in class; because you wouldn't be able to read them anyways."

Nica, PMATH 351

"Horn clauses, right, …, we'll get horny next Monday."

Hoffmam, PMATH 330

Is your prof funnier than burnt toast? Do you believe their quacky quips are worthy to enter the annals of *prof*QUOTES? Then send us your *prof*QUOTES! Drop them off in the BLACK BOX between the C&D and Comfy Lounge or email them to us at mathnews@student.math.uwaterloo.ca. You have to send them to us for us to print them!

*manning*QUOTE

"The best way to ingest marijuana is to take it as a suppository."

Preston Manning, St. Jerome's Wintermeyer Lecture

ExamCram

New service tries to buy UW TAs

So there's this new company called "Exam Cram" that claims to be the "experts in exam preparation". Based on http://www.excram.com, they offer a 2-day, 14 hour cram session for some first and second year classes (as of now, mostly Math and Physics courses, with sessions on the last weekend of November).

Of course, they're not giving it away for free; it costs $90 for the session. Now, you wonder, "what's the point? I can go to the tutorial centre for free…" Well, it seems that ExamCram is *trying* to buy TAs "that have come most highly recommended" (through email) to run these cram sessions for $500.

The main problem with this is that the TAs are currently employed by the University, and it would be a conflict of interest to work for ExamCram. The company also claims that sessions will be held on or near campus - since UW doesn't permit this type of enterprise on campus, any sessions will have to be off-campus.

Overall, this means that their target market of students with cash to spare (not a very large one to begin with) has a better and less expensive alternative (better TAs, free of charge) right here on campus. Now, basic Econ 101 doesn't bode well for the UW Economics graduate that's helping run this company - they are trying to compete directly with a better product that has a lower price. As Larry Smith would say, "Warning, Warning! Danger Danger!"

Besides, if you're failing bad enough that you think you need to pay for inferior help, you're probably going to fail anyways - save your money.

Krease

Talking With Terrorists

Why do people blow each other up?

Tonight, starting at 7:30 pm in St. Jerome's Sigfried Hall, Anthropologist Cynthia Mahmood will tell you her answer to this question. The event is free of charge.

Cynthia has spoken personally with religious militants in India, Pakistan, and Afghanistan about their motives, and how Bush's "War on Terror" may backfire.

*math*NEWSquiz 5

Squizzy squiz squiz squiz

Greetings, all! First of, here are the answers from last fortnight's *math*NEWSquiz: **Song Lyrics** 1. *Nothing Else Matters* by Metallica 2. *Particle Man* by They Might be Giants 3. *To Comfort You* by Bette Midler 4. *Naked* by Avril Lavigne **Saints**: 1. St. Thomas More 2. St. Jerome 3. St. Augustine 4. St. Barbara Bonus: Hagiographer **Snuggles for City Council**: 1. Ward 4 (Central) 2. "I will ensure Quality Communities by creating Quality Homes." 3. Bob Byron 4. Skrzydlo, Stephen **Wrestling Trivia** 1. Terry Brunk 2. Larry Pfohl 3. Glenn Jacobs 4. Sid Eudy

The lone submission this week was Adam Felix, who is acclaimed as the squiz champion for this issue. Adam scored 19 out of a possible 21 points. Congratulations, Adam! You can pick up your prize (a $5 gift certificate for the C&D) from the MathSoc office. Then again, Adam wins so much I'm sure he knows where to get his prize by now. Now, on to this issue's squiz, starting with a category inspired by a recently-released blockbuster:

Matrix, Revolutions Trivia

1. What is the determinant of a square matrix with 1's in all of its entries?
2. Which famous revolutionary leader is associated with the slogan "Peace, Bread, Land?"
3. What is the name of the quantity obtained by adding up all the entries along the diagonal of a matrix?
4. Out of what revolutionary body did the political labels "left" and "right" originate?

Cy Young Award Winners

1. Who won the 2003 Cy Young awards?
2. These two men are the only people to split a Cy Young award.
3. This man went 15 years between his first and last Cy Young awards.
4. What year was the first Cy Young award given? Who received it?

Fundamentalist Movie Reviews

Identify the following movies, currently in theatres, as described by a Christian fundamentalist movie reviewer.

1. The theme of this movie indeed touches warmly on brotherhood and "racial tolerance." But all along, the base of the story is founded in belief in magic and in the spirits of the dead having control over life and the living. It might be wise to remind us here that God is very specific about the use of "magic," spiritism and consulting the dead.
2. [This movie] is clearly a mockery or at least an allegory of God, Jesus, Satan and the antiChrist … The slamming properties of the sound effects and background music amplified the already larger-than-life imagery. An effective combination to desensitize us to the gravity of the battle between God and Satan.
3. If you go to see this film, foul language will blast your ear pans at about 29 per hour [Prov. 8:13] and God's name in vain about 6 per hour [Deut 5:11]. You'll see a hospital attendant sell sex with a comatose woman with what I suspect is X-rated perversion. Shades of Sodom and Gomorrah! [Jude 7]
4. We see nothing but Buddy taking his pants down, but that is enough to identify an infatuation with crude humor by the writer and his willingness (*and* of the MPAA) to expose little kids in the audience to it.

CS 133/123

1. What is the final project for CS 133/123 this term?
2. Who are the seven tutors for CS 133/123 this term?
3. How many instructors are there for CS 133/123?
4. Factor 123 and 133 into their prime factors.

That's it for this week. Submit your squiz to the BLACK BOX or electronically to mathnews@student.math.uwaterloo.ca before November 24 for your chance to win a $5 gift certificate for the C&D!

π and Eigenvector

The Ancient History of the Dodo

Archaeologists today were shocked to discover that the Dodo, an animal believed to have gone extinct many years ago, may not have gone extinct after all. Recent artifacts uncovered in Mauritius hint that this flightless bird may in fact have taken flight — to the stars.

A tour of the archaeology institute of Mauritius starts off as being incredibly boring. Some bones here, a beak there, a fossilized feather up that thing. All that boring stuff your teacher made you go see on a museum trip in third grade. But then, you walk into the room with the newly-discovered relics, and your jaw hits the floor. Lying on tables beside Dodo-shaped atmosphere suits are small solar fliers, plasmatic fuel cells, and stones etched with advanced stellar calculus. Other items on other tables are so advanced that the world's top scientists have yet to uncover their secrets.

The prevaling theory was that the Dodo was a flightless bird that lived on Mauritius, and that explorations in the renaissance drove the peaceful Dodo to extinction. The multiphasic rifles and chronomirror armor seem to suggest another theory: that the Dodo are members of an elite galactic peacekeeping force sent to protect mankind from the aliens that would threaten its destruction. As to why they left so suddenly, scientists speculate that the Dodo were loathe to protect mankind after meeting them for the first time and discovering that they were, in fact, really big assholes.

Since the discovery, SETI researchers have redoubled their efforts, hoping that broadcasting Dodosonic signatures will help elect a response from the Dodo. So far, no response has been received. However, crop circles that feature humans in stupid poses have been discovered in increasing numbers.

Clearly, what is needed is to convince the Dodo to return to Earth and teach us everything they know in order to protect us. That way, we can use their technology against them, conquer their species, and finish off the work our stupid renaissance explorers failed to complete when we told them to get rid of the Dodo once and for all.

gridCOMMENTS

The last page of *math*NEWS - it can only mean one thing! It's that time again! Come boys and girls, ladies and gents, and creatures of all types! Try your hand at the *grid*WORD we've got in store for you this week!

Last week we had several entries - thank you to all those who submitted! Conventional solutions were handed in by The Sheep, Cindy/Crystal/Jason, Catherine/Katharine, and the SJU Crew. W00T to you all! Good job! And for the cryptic, solutions were handed in by Anthony/Meredith, Gerry T, Jim/Beatrice, Chris Alexander, and the SJU Crew.

All the entires were correct for the conventional grid from last issue, so we look at the *grid*QUESTION for help: "What is the best way to spend Hallowe'en?". It was a hard decision, so I seeked extra help from my fellow *math*NEWS writers. The final decision - SJU wins it with "Nakkid". It was also a close call with the cryptic solutions. The winner for last issue is Anthony and Meredith! Congratulations everyone!

Don't forget to submit this week's *grid*WORD to the BLACK BOX or email it to mathnews@student.math.uwaterloo.ca by **November 24th**, 6:00pm. And most importantly, answer this weeks question - "How many slices of cheese can you fit into a puppy before causing serious harm?"

The Girl

The Conventional Clues

The shaded answers are an artifact of the Cryptic puzzle and don't, so far as I know, represent anything in particular. However, I'd certainly be impressed if anyone could manage to use all of them in a single sentence...

Across

7. Garland (6)
8. Handy (6)
9. You (4)
10. Cautions (8)
11. Liaisons (7)
13. Furry marine critters (5)
15. Accuracy (5)
16. Contracts (7)
18. A weekday (8)
19. Close (4)
21. Cask (6)
22. Justification (6)

Down

1. Part of arcade (4)
2. Producers (13)
3. Sprays (7)
4. Hairy (5)
5. Where the Riviera is (13)
6. Cottage (8)
12. Brow (8)
14. Attorneys (7)
17. Strangely (5)
20. Particle (4)
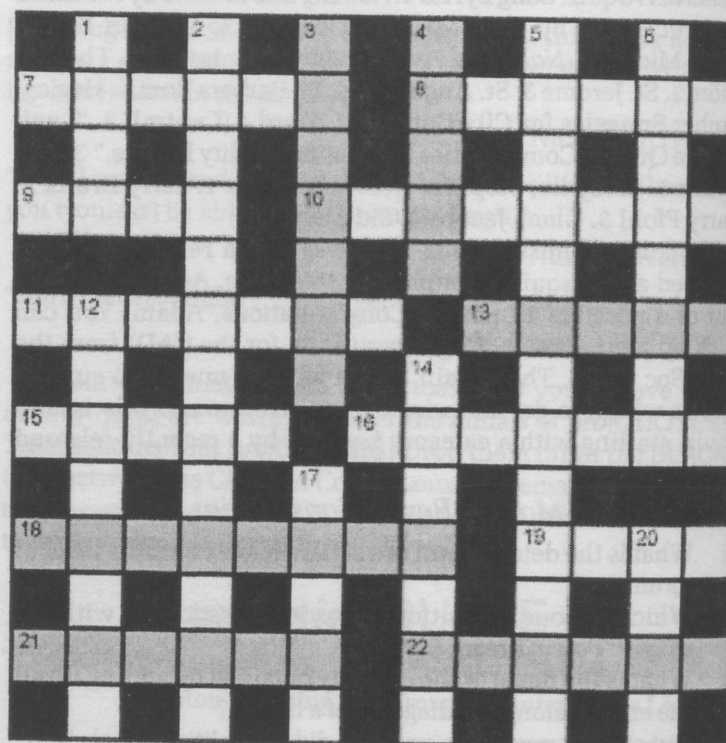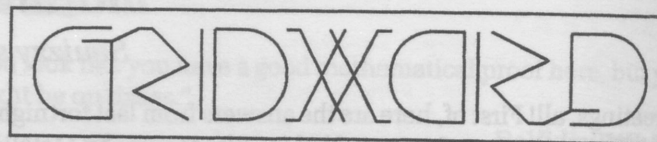
The Cryptic Clues

This puzzle is dedicated to everyone who learned English as a second (or third, or fourth) language. Sorry about that.

Across

7. Crumple tablecloth, erase late stain (6)
8. Throes tormented extras (6)
9. What you need to fence in more peepers (4)
10. Roasting wacky player (8)
11. Film clip of infantry era (7)
13. Bread, or what it takes to make it (5)
15. Won't pay for jewel cheapskate is hiding (5)
16. Scorn a crass organisation in front of macho leader (7)
18. Vocal spasm sounds like high C's: ought to be endless (8)
19. Reportedly measured mass of man (4)
21. What you get when you say "when" (6)
22. Depression caused by low pressure (6)

Down

1. Hit friends back (4)
2. Chopping up corpse cut cost of bug (13)
3. Complete without "O"? Done (7)
4. Reported nod of branch (5)
5. MacBeth's promotion of charade won't go wrong (5,2,6)
6. Tells time in the fourth estate (8)
12. Dutiful liar left deliberation out of sorts (8)
14. Hundred he hid in duplicate chopper (7)
17. How devoted sledders feel about their dogs (5)
20. Gets into Saudi G-string (4)