Volume 69, Issue 6 Tuesday, December 5, 1995
Santa claus takes degrees AT A POLAR COORDINATE -


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$\square$

## Prez to be Sez

For all of those who missed the election (or perhaps just the results), I am the Stream Y (all people going on co-op in next term) president for 1996. Your other exec are Kim Jack (VPF) and Xavier Aburto (VPAS). As usual we need people to help out with just about everything in the Spring '96 term. There are many Directorships that need to be filled along with many other volunteer positions. If you are interested in holding a Directorship please fill out and submit the form that is somewhere in this issue of mathNEWS. Forms will also be available in the MathSoc office. Completed forms should be returned to the MathSoc office. Those interested in simply volunteering for other things (such as members of the social board or office workers) should send an email message to mathsoc@undergrad.math or talk to either Kim, Xavier, or myself.
If you have any questions, comments, ideas, or concerns regarding MathSoc please feel free to contact any of the executive, we would love to hear from you.

On behalf of your future executive I wish everyone:
Luck on exams, a Merry Christmas, a Happy Chanukah, a Happy New Year, and a fantastic work or school term.

## Rachel Nickie

lrnickie@undergrad.math.uwaterloo.ca President "Another president who likes to have fun"

## socTOC

Hi! It's me again, your Social Director. I would like to begin by congratulating the winners of the Euchre tournament, Brian Fox and Ian McArthur. We had a good turnout. Thanks to all of you who participated. To those who participated in the Bridge Tournament on Novemeber $30^{\text {th }}$ : Hope it went well!

Well, it's that time again, the end of term where everyone begins to panic and anxiously try to catch up on three months of work in two weeks. So, seeing that this is the last edition of mathNEWS, I would like to take this chance to thank everyone that has graciously helped me out with all of our Social events - meaning the Social committee - Graham, Ray, John, Kim, Xavi, Curtis, Berj, Eric, Mark, Cheryl, JP, Josh for all the publicity advertising he worked so diligently on, and of course thanks to all of you who came out to join in and participate. Hopefully you enjoyed yourselves. If you have any comments, concerns or suggestions, good or bad, about the Social events for this term, please let me know (tlduff@undergrad.math. uwaterloo.ca). If you have any suggestions on anything that you would like to see happen next term (Spring 1996), get in touch with myself or John Savoie (jsavoie@undergrad.math.uwaterloo.ca). We are hoping to co-chair the position as Social Director in the spring term. Get involved!! So, thanks again to one and all. Good Luck in studying, on all your Finals and in your adventures next term. Enjoy!! Keep safe and have a Merry Christmas and a Happy New Year.

Tammy Duff

## mastHEAD

Yes, ladies and gentlemen and other unclassified beings of Math, the term ends and with it, this term of mathNEWS. Sad indeed, but life goes on...
It's been a blast... pretty much sums up what's been going on in my head throughout the term! We've had a great turnout of talented Frosh writers and productionists. Considering that most of our staff consists of $4^{\text {th }}$ year students, that's a good thing. And then there's Sarah, but we'll just leave her aside for now.

As for next term, who knows who'll be editor? Will our editor-in-training do the job or will Mike and I be crazy enough to take on the job while taking Graphics (CS 488)? Hmmmmm...tough one.

Exams are just around the corner. So... "Love, luck and lollipops." Happy holidays to all!

As we all take a moment to remember the fourteen women whose lives were lost by a maniacal man six years ago, let's share that moment to reflect upon not only the women, but upon the men throughout the world who've lost their lives to violence as well. Violence is not a gender issue-it's a person issue.

And with that depressing note, I'd like to leave you with some of the great gang who's still here at 1:30 a.m. to put this issue together, along with their year/course of study, possibly a rank (don't ask) and the person they'd least like to sit next to during a final:

Dale Wick (4B' CS, The Zombie King-decay causes bad breath), Sarah Kamal (2A Double OR/ENGL, Mr./Ms. Chronicdribblynose (for obvious reasons)), Darren Rigby (2N, Seargent, Don Cherry (he annoys me.)), Brian Fox (4N AM, Western Marching Band), Greg Taylor (1A MATH, Scrooge (tendency to mutter "Humbug" frequently throughout the exam)),

A few others were here, but they left too early to sign the mastHEAD.

Thanks all!
Thanks especially to Marion at Graphic Services for her endless devotion to getting our wonderful publication out on time and to Fed Pizza for the pizza and the incredible number of cups! Yikes! The pizza's not bad, y'know...

Mala "Crakko" Krishnan (4A CS, my prof. . . creepy eyes glaring at my paper, snickering at my creative (and WRONG) answers - I don't think so) Mike "Hammer" Hammond (4A CS, Myself. . .that is, I'd hate to look at my exam and just be beside myself with confusion...)

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The powerful and most-awesome duo: Mala "Crakko" Krishnan, Mike "Hammer" Hammond

## lookAHEAD

| mathNEWS |  |
| :--- | :--- |
| December 5 | Issue \#6 hits the stands |
| December 6 | Stands released from hospital |
| Exams |  |
| December 6-7 | Time to breathe |
| December 8 | Time to panic |
| December 8 | Exams begin |
| December 11 | Everyone is in distress |
| December 15 | Stress continues |
| December 18 | AAAAHHHHHH!!!!! |
| December 21 | END of Exams! |
| December 23 | Go home already |
| MGC |  |
| December 15 | Director Reports Due |
| Miscellaneous |  |
| December 6 | In Remembrance of Montreal massacre |
| December 7 | ELPE @ 7pm in PAC |
| December 9 | World Fuji Ball Championships |
| December 18-25 | Hanukkah |
| December 24 | Pictures on Santa's lap |
|  | Comfy Lounge @ 11:30pm |
| December 25-31 | U(W) on holly daze |
| December 25 | Political Enema plays Fed Hall |
| December 26 | Curtis gets the heck out of here |
| December 27 | Marco follows suit |
| December 28 | Math Building set for demolition |
| December 29 | Replica of Math Building |
| to be erected on very same spot |  |
| December 32 | Dean Kalbfleisch receives Nobel Prize |
|  | for Mathematics |

## MEF is off and running

## MEF is Mathematics Endowment Fund

Hey everybody. Here is the end of term recap of what has been going on within MEF. On Wednesday the Funding Council passed a motion to contribute $\$ 2,000$ to the Actsci club for the ASNA convention to be held here next term. Thanks for a fine presentation go to the Actsci club and good luck with the convention.
The FC also passed a whole wack of by-laws that set out important guidelines pertaining to how the Endowment Fund should be governed. This is a big breakthrough as we previously had none. We now have by-laws. Yes! If anyone would like a copy drop me a note on the MEF account, mef com@undergrad.math.
With all this done I have almost finished everything I wanted to do as director this term. Special thanks go out to Sumon Acharjee. Thanks for the help and for giving us a homepage. I'd also like to thank Shirley Thomson and Jeff Preston for answering questions when I had some and for getting me off the ground at the start of term.
Good luck to Ron Servant as next terms director and I shall see you all in the summer. Good luck to everybody on finals!!

Etienne "ET" Phaneuf

## We're Just Too Cool!

## mathNEWS on ScienceWeb

Here's a message (verbatim) from ScienceWeb to us, the esteemed editors of mathNEWS, regarding the mathNEWS homepage. It is found at:
http://www.undergrad.math.uwaterloo.ca/ /mathnews Read on:
Just a quick note to let you know we've placed a link to mathNEWS on the What's Cool! page of ScienceWeb, a new www site devoted to Canadian science and technology. You can check us out at:
http://scienceweb.dao.nrc.ca/
You've got a great site, I had fun browsing it.
Fraser Chambers, Asst. Ed., ScienceWeb

# The World Outside Math 

Is Now A Cold And Wintry Place

Which mirrors the bleak, frozen wasteland that we see looming ever closer in our futures as we try to calculate our probabilities of passing finals. Better start getting those butts in gear, folks! (And bribing those profs ahead of everybody else.)

Yup, finals are here, but we're still looking for people to contribute stuff.

For all you co-op students out there who'll be clearing out your cupboards at the end of the term and have a whole bunch of unused cans of food hanging around, I have a suggestion. Drop your nonperishable food items off with us, either in the box right outside the C\&D or in the MathSoc office (MC 3038). That way, we can distribute your foodstuffs to people who will appreciate them way more than the garbage can will.

Waste not, want not, right?
Also, there are white ribbons and Remember buttons available in the Math C\&D and MathSoc office to commemorate the $6^{\text {th }}$ anniversary of the Montrèal Massacre. All proceeds from the sales of the buttons go towards the YWCA Women and Children's Shelter.

My goal was to increase awareness of community issues in the Math Faculty this term, and I think I can rest assured that mathies have had the chance to contribute in some way or another in these last four months. Judging from the success of the interfaculty food drive (we came second! We came second! Woohoo!), the poppy sales, the pop can tab collection, the Xmas Toy Drive (which netted a good five boxes of clothes and toys to distribute this holiday season), and Operation Christmas Child (which brought in over 40 boxes to send to children in war-torn areas,) it seems that many mathies have taken up that chance.

I'm going to rest my External Director mantle with a sigh of relief after this week, and hide away in some deep, dark corner to procrastinate away to my heart's content (as usual) in preparation for finals.

Best of luck, and season's greeting to you all.
Sarah "B-r-r-r-r. Draft in here!" Kamal

## MathSoc Volunteer Application

Name:
E-mail:
Major and Year:

## Current Address

Street
Number
City,
Province
Postal Code,
Phone Number
Permanent Address
Street
Number $\qquad$
City,
Province
Postal Code,
Phone Number

## Which Position would you like? First Choice:

## Second Choice:

## Third Choice:

Why do you want to be a MathSoc volunteer?
$\qquad$

What can you do for MathSoc as a volunteer?

## What can MathSoc do for you?

$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Summer 1996 Math Society DIRECTORSHIPS

Applications are now being accepted for all MathSoc directorships. Anyone interested in holding a directorship must complete an application form. Forms are available in this issue of mathNEWS and in the MathSoc office (MC 3038).

Following is a very brief description of what particular directorships entail.

Speaker (1) Maintains order during all Society meetings. Keeps the meetings running smoothly.

Publicity (4) In charge of publicity for all society events. Responsible for changing the messages on the pixel board outside of the C\&D.

Resource Manager (2) Maintains and keeps the MathSoc office open and functional.

Internal (1) Ensures that council operates in accordance with the Pink Book (where the policies and other such things are kept)

Mathletics (1) Gets people in math signed up for all Math Society Campus Rec. teams.

Computing (1) Maintains the computers in the MathSoc computer room.

2nd VPF (1) Helps the VPF carry out their duties.
Academic Resources (1) Maintains the exam bank in the MathSoc office.

Secretary (1) Takes minutes at all MathSoc meetings.
Social (4) In charge of board that plans and organizes social events for the term.

External (1) The liaison between the Math Society and the outside world. This entails planing activities with other faculties and groups within the KW community (eg. food drives).

Novelties (1) Responsible for having new and interesting novelties available for sale.

Postings (2) Maintains all of the MathSoc poster boards.
Chief Returning Officer (1) In charge on all elections that the society has during the term.

Students Advising Co-op(2) Hold the positions on SAC reserved for Math students.

For complete descriptions on these positions speak to current MathSoc volunteers or check out the MathSoc homepage: http://www.undergrad.math. uwaterloo.ca/ ${ }^{\text {m mathsoc/ }}$

If you have any questions about directorships or getting involved with MathSoc please send an email message to mathsoc, lrnickie@undergrad.math, or come by (MC 3039, 3035) and talk to me in person.

## Ec! Old buddy! Don’t leave us!!!

Hi folks. I'd like to devote this article to somebody really special in the math faculty: Eric Sutherland.
Eric, better known as Ec, Big Red, and Lobster Boy, is special for a number of reasons. He's good at talking in a funny voice, wasting huge amounts of time in the Comfy Lounge, and flexing his eyebrows. Oh yeah, and he's been one of the most important people in the math faculty for the last couple of years, too.
I remember the first time I met Eric. It was, in fact, on the very first day that I roamed these sacred halls. Yes, as a young, stupid, smelly frosh, I wandered in my clueless way into the C\&D to pick up that most necessary of useless things, the math frosh kit. HOWEVER!!! There was a problem with my payment (something about my cheque not being in on time), so I wasn't officially supposed to receive a frosh kit. I wasn't about to take something like that lying down (I'd paid my fifty bucks! I DESERVED that laundry bag!!!), so I stood there and bawled mercilessly. Well. The frosh kit giver-outers looked mighty worried at this unprecedented turn of events, and looked around in confusion. Then somebody bright said: "Let's ask Eric!! Eric knows!"
All of a sudden, everybody looked relieved. Choruses of "Eric knows!" and "Find Eric!" resounded in the room. Stress lines miraculously cleared away, the future looked bright, and the birds in the trees began chirping more sweetly. Eric was arriving!!
I craned my neck, trying to catch a glimpse of this shining paragon, this all-wise, all-knowing seer. And then I saw him.
Oh boy. Some big guy with a red beard.
And so I, in my brain-dead frosh-like way (thank goodness I've outgrown my repulsive first-year ways) dismissed Eric as being just another mathie. How wrong I was. You see, Eric is NOT just another mathie. Eric is THE mathie.

Yup, Eric has been one of those Psycho Super Involved Mathies That Just Makes You Want To Be Sick during all the years he's been here. Just what has he been involved in, you ask? Hmmmm. Let me think real hard on this...
I guess I could mention, for starters, that he's been part of many organizations: FASS, mathNEWS, the PMC, CSC, Club Stat, and the ASC, to name a few. I suppose I should say that he's been highly involved at the faculty level with the Undergraduate Affairs Committee, Faculty Committee on Student Appeals, University Conflict Resource Group, and the $25^{\text {th }}$ Anniversary Committee. I could mention the way he's taken up almost every position in MathSoc, from Social Director to Treasurer to Prez, or the way he's taken on progressively more important positions in U(W)'s Canada Day celebrations (becoming, most recently, the Volunteer Coordinator for this past summer). He's been editor of the yearbook, worked on 1B info nights, and been involved with the Canadian Math Competition Seminars. He was Coordinator of the Pink Tie Pledge in his final year as an undergraduate, and as one of his largest and most tangible contributions to this faculty, Eric founded the Math Endowment Fund.
He is currently sitting, by appointment, on the Commission on Institutional Planning, which plans $U(W)$ 's future on a university-wide level.

Eric also has a huge passion for bridge which has propelled him to create and promote the University of Waterloo Bridge Club, and has sent him off to many competitions in far-away places. He's gone to internationals for bridge twice (that I'm aware of) and placed third and fourth in his quests for glory. I've been told that he's also one of the youngest bridge masters around.

This list I've compiled is by no means the full extent of what Eric has done. I've just jumbled it together by talking to the (very many) people that know him. I've been struck, during my pseudo-journalistic wanderings, by the amount of respect people have for Eric, for his achievements, and for the huge number of contributions he has made to this school. Eric's a role model, darn it all, and a pretty nice guy, to boot.
Yeah. So all in all, he's a pretty impressive dude.
And he's going to be finding a new niche somewhere else in the world after this term now that he's finished his graduate studies, leaving the nest that he helped build in search of bigger and better things.
So, on behalf of the many of us who have had the pleasure of knowing you and profiting from your hard work here, Eric, I'd like to say toodles, best of luck, and may the future shine bright on you.
And good riddance! It's about time you stopped putting the rest of us to shame.

## Geez.

Sarah "I'm so embarrassed!!" Kamal


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# The Sock Murders - Part V 

Sock in MC - The Final Battle

After my last encounter with the sock, I had vowed not to rest until it was done away with once and for all. Unfortunately, I didn't really have any way of tracking it down, so I just went about my usual business, hoping that I would run into it by chance as I had previously. That chance occurred one morning just as I arrived on campus.

I saw the sock standing in front of South Campus Hall as I was crossing University Avenue. I ran right through traffic and up the steps as quickly as possible, all the time keeping my eye on the sock. The sock apparently saw me as well, because it turned and ran through the building. When I got to the other side of South Campus Hall the sock was passing Engineering Lecture Hall. Either the sock was a very fast runner or I was a very slow one.

In any case, I continued the chase, and saw the sock enter MC while going under the science overpass. I was throwing people to ground in my mad dash to the building. Once inside MC it was more difficult, since I had no idea exactly where in the building the sock had gone. I frantically asked everyone standing around about the sock, and they pointed upstairs. As I rushed onward
and upward, some other bystanders said that the sock was on the third floor. This was going to be it - the final battle.

I burst through the door shouting, "WHERE'S THE SOCK?" and everyone pointed over to the right. Oh, no! Surely the sock didn't kill all of the innocent people (yeah, right) in the MathSoc office. As I barged into MathSoc, I realized that I didn't have anything to attack the sock with even if I did get it cornered. Luckily, the sock wasn't even in the office, and everything seemed to be quite normal. Well, the sock had to be somewhere nearby. I wonder ...

When I entered the room it was a complete mess. Loose papers were everywhere, and running across the floor was a stream of blood. Yes, this time the sock had finally unleashed its wrath on a human target, or rather two humans. Inspecting further, I found the sock and its axe lying in a corner, but there was no life at all left in it. The sock was just a limp piece of cloth. Dismayed with the tragedy that had taken place, I decided that life must still go on. Oh well, there will be new editors next term.

Warren "The Milkman" Hagey

## Bored Games

Isomorphism

This big word strikes big fear in the heart of many a math student. No more, I say. Following, in the spirit of other great games like Twister and Perfection, comes the latest - Isomorphism, complete with pop-a-matic bubble! Given two graphs, the 2 to 6 players must say if they are isomorphic or not in the allotted 30 seconds, and if correct, move one vertex forward on the game graph, a flattened icosahedron. Suitable for years 2-4.

## Name That Epsilon

Skip, if not in the advanced section. After 3 terms, the highlight of Calculus classes has become trying to guess the epsilon appropriate to the current proof. Will it be $\frac{\epsilon}{2}, \frac{\epsilon}{3}$ or $\frac{\epsilon}{4 A M R}$, where $A$ is the total surface area of the rectangle you are integrating over, $M$ is the upper bound of the absolute value of the function you are integrating, and $R$ is the total number of configurations of a Rubik's Cube. In the game, you would be given the name and opening lines of a proof and would have to "Name That Epsilon". Suitable for geeks of all years.

## The Result Follows

This phrase is used far too often by profs to the dismay of their students. I hope this game will remedy that problem. The premise is a simple one - each player is dealt out a hand of 13 cards from the deck consisting of Theorem Cards and the allpowerful Reversal Cards. An excerpt from this game might go as follows:
"I'll trade you my Well-Ordering Principle for your BolzanoWeierstrass Theorem."
"Only if you promise not to use your Fundamental Theorem of Calculus Card in the next 4 turns."
"Okay, then I'll use my Bolzano-Weierstrass Theorem to show that the sequence is indeed Cauchy... and THE RESULT FOLLOWS!!!"

Suitable for the greenest mathie.
Look for these games in a MathSoc near you.
Reza Shahidi

## Riddle Me This

Q: What would you call an Andrew Lloyd Webber song that extolled the virtues of nighttime bronchial congestions?
A: The Mucous of the Night
Mike "Hammer" Hammond

## Blatant Filler

Venetian Cream!!

This message brought to you by: the number 2 and the letters S.E.U.S.S.

## prof QUOTES

"This is like a morning-after pill for transactions."
Burkowski, CS 338
"Suppose I didn't want to hire someone from Waterloo... well, that doesn't happen in real life. Suppose I was afraid that he was a graduate of Carleton."

Cunningham, C\&O 350
"How come I wasn't quoted in mathNEWS this week? My jokes must be getting stale."

Willard, MATH 135
"That can't be right. Is that right? Well, it looks right to me. .."
Willard, MATH 135
"...are we then in a hopeless situation? The answer is yes, and at this point we shoot the instructor."

Willard, MATH 135
Student(observing board): "What is six times two?" Prof: "Six times two is... six?"

Willard, MATH 135
"We, the instructors, are benevolent. We love you. We would not want to put you in a humiliating situation..."

Willard, MATH 135
"If you can see how to do this by inspection, more power to you."
Willard, MATH 135
"If we want to colour the edges of this graph in two different colours, white and... (looking around for different coloured chalk) ... white, I guess."

Haxell, C\&O 342
"If you do this on the exam, the Archimedean Property comes into play: You get $\frac{1}{n}$ marks as $n$ tends to infinity."

Forrest, MATH 147
(After making some mistakes on the board) "I'm totally unprepared today. You'll see some problems than that."

Younger, C\&O 230
di
"I accuse you of having an affair with a 6 inch woman... where do you stick it?"

Gosselink, ENGL 200A
"What would you do if you were placed on a nipple, half the size of you, on a 12 foot high breast? That's a chore, not a pleasure."

Gosselink, ENGL 200A
"The last answer is always the correct one."
Cunningham, C\&O 350
"I want to get through therapy quickly and get on to other things."

Ross, PSYCH 101
(Looking at result on board) "Aw, shit! (looking around) Shh... you didn't hear that. Don't you dare put that in prof QUOTES or I will give you all zero without compunction."

Marshman, AM 251
"O.K. You should try finding this on your own. I used MAPLE."
Campbell, AM 250
"As you can plainly see, this is the graph of a circle. It looks a little elliptical, but that's because the blackboard is slightly warped. We have to make do with what we have."

Forrest, MATH 147
"It's like sex. It's not always great the first time around. You have to wait a few times before you have that special experience. (shortly) You have to go home and practice by yourself. (later) How many had an experience today? Not THAT experience!"

Rehder, CS 130
"Something in algebra proves this is true."
Vrscay, MATH 137
"This is a very easy proof, if you are sober."
Ng, MATH 135
Student: "Did you calculate the class average?" Prof: "I did not. It was not an interesting number."

Ng , MATH 135
"Anyone remember the P-Machines?" (no one responds)
"See, I was right! They're dead!"
Weddell, CS 446

## ultraCLASSIFIEDS

Bitter Guy
I guess it's a lot of fun to sleep on the couch.
Abubu
T.M.

You never visit no more.

Rude Uncle
You are a sad, strange little man.

## Top $2^{5}$ Punnish Methods of Firing a Professional

## [Another Edition of Pun-Ishment. - HammerEd]

32. Religious fanatics are dissected.
33. Fishermen get debated.
34. Cryptographers are deciphered.
35. Operators get disconnected.
36. Journalists get depressed.
37. Cowboys get deranged.
38. Politicians become devoted.
39. Prospectors become disclaimed.
40. Censors are discussed.
41. Hunters become dislodged.
42. Cashiers get distilled.
43. Butchers get delivered.
44. Salespeople are decommissioned.
45. Sailors are deported.
46. Archaeologists are deboned and disinterred.
47. Lawyers are debriefed and distorted.
48. Geologists are defaulted and disgorged.
49. Poets are defrosted and expounded.
50. Musicians are denoted and disbanded.
51. Actuaries are discounted and devalued.
52. Waitresses are disbarred and disordered.
53. Engineers are either detrained or deconstructed (depending on the kind of engineer).
54. Barbers are distressed and departed.
55. Gamblers are discarded and deduced.
56. Teachers are degraded and déclassé.
57. Equestrians are dismounted and derided.
58. Calculus professors are delimited and disintegrated.
59. Exterminators are debugged and deloused.
60. Chess players are defiled and stripped of rank.
61. Prostitutes are delayed and denuded.
62. Electricians are defused, discharged and delighted.
63. Models get deposed, disfigured, defaced and discovered.

Gridby, who, come exam time, is sure to be detested.

## The Oracle Speaketh

## Knows All, Sees ... Nothing

Dear Oracle,
I'm afraid you misunderstood my question. I did not ask, "What could I ask here"; like all mathies, I know that you are omnipotent and can answer every question put to you. Rather, I asked:"What question should I have asked", as in "Which of the many problems plaguing me is most worthy of your attention?".
J. Random Mathie

Dear J. Random,
All questions you can ask are equally unworthy of my attention. But if you're not going to stop asking useless questions like this (that are not only unworthy of me but also the readers) until I give you an example, I'll give you one. You should ask "Why does the world have so many fruit flies? And how do we get rid of them?"

Oracle
Dear Oracle,
Um...I tried everything you suggested, but all I got was a multi-coloured shoulder. . . but, it's kind of weird...I think I enjoyed it. What else can you tell me?

Lost in Love
Dear Lost in Love,
I do have additional information about your 'love'. But I choose not to release said information on the grounds that it will incriminate me. (My own shoulder has been manipulated into a multicoloured state.)

You're on your own, Oracle

Dear Oracle,
If an Amtrak train leaves Chicago heading towards Toronto at $92 \mathrm{~km} / \mathrm{h}$ and a Via train leaves Toronto at the same time in the direction of Montreal travelling at $23 \mathrm{~m} / \mathrm{s}$ and a third train owned by an unspecified company leaves Santa Fe at the same time heading toward New York at 54 mph , and, at that moment, the Space Shuttle Columbia is in geostationary orbit directly above Mexico City at an altitude of eight miles, what is the height of the tide in the Bay of Fundy at 12 noon on April 2, 1997, given in cubits, to the nearest $1 / 100$ ?

Comfy Lounge Denizen.

## Dear Denizen,

My knowledge does span over all time and space but I decided long ago not to release any information of future or very distant events. So I will submit a reply to this question in the first mathNEWS after April 2, 1997, given that it is still in production.

## End of Term Food Drive

MathSoc says... "Food me"

MathSoc still wants your non-perishable food items for this term's food drive. Please bring in whatever you can during the exams. Drop off boxes are located in MathSoc and the Math C\&D. The food drive ends on Wednesday, December $20^{t h}$.

## Prez Sez

Not in his own words...
Hey all, again! Once again, Ronald Servant, our MathSoc President, has not submitted his Prez Sez article.
But I'm going to be nice. I'm not going to create a plausible incident involving Ron, a train, a harem of women and some earthworms, to indicate why he didn't write this week.

I'm just going to remain calm.
Thank you.

The MathSoc President Ghostwriter

## prof QUOTES Books Are STILL Available! <br> Great, Cheap Gifts!

Stock up now! The holiday season is a-coming!
Great gift for the whole family. Loads of fun for all! You and your loved ones can gather around the fireplace and enjoy these funny quotes all year round!
prof QUOTES books are available in the mathNEWS office as long as we're in there! The mathNEWS office closes on the $17^{\text {th }}$ so after that. . . that's it folks!

One for $\$ 2$, two for $\$ 3$, three for $\$ 5 \ldots$ You know the drill.
Come and get 'em!
Mala "Crakko" Krishnan Mike "Hammer" Hammond

## Filler - It's Not Just For Kids

For the first annual mathNEWS filler contest we had a nearly fantastic, and certainly unprecedented, turnout. Kudos to G. Stitt, Chris McGuire, Darren Rigby, Warren Hagey, Mike Hammond, Cheap Stein Ruler, the number 2 and the letters S.E.U.S.S. for submitting filler entries. Most of the entries have been included in either this issue or the previous one. Because of space considerations, we couldn't print them all. Sorry! [But thanks a mil! There were just too many!-CrakkoEd]

Oh yeah - that whole winner thing. Well, after much consideration, deliberation, tribulation and amputation, the panel of talented filler judges here at mathNEWS has decided that the best filler submission is from...

## Warren Hagey

Congratulations! Your "Singing Filler" tune will be a great inspiration to all aspiring Filler artists - come by and pick up your handy-dandy math novelty prize-pak sometime. And to the rest of you- thanks for coming out!

Paul Rechsteiner
"Someday, Filler will rule the world!"

# "It appears that $85 \%$ got an A on the final exam! I must be losing my touch." 

## Lackadaisical Library Learning

I've heard great things about the libraries here. Unfortunately, I can't make any judgements about them myself, since I haven't used them at all. In fact, in three full terms here at $U(W)$, I haven't even been inside any of the university libraries at all. A few times my friends have tried to trick me into going inside, but I haven't fallen for any of their sneaky attempts. For instance, one of my friends tried to get me in the Davis Centre Library in the summer, claiming that it wouldn't count since I was on my work term. I saw right through his scheme though, and waited outside while he went about his business.

Yes, the libraries are indeed interesting places. Who knows, I may even go into them someday.

Warren "The Milkman" Hagey

## Riddle Me This

Q: What would you call an Andrew Lloyd Webber song that described his favourite portion of the female anatomy?
A: Mammary

by Mike "Hammer" Hammond

## The Mother of Abstract Algebra

Of all of the women mathematicians, Emmy Noether is generally the best known. Often described as a loving, intelligent woman, she was impressive by many standards. She was faced with gender issues and political tensions in her lifetime, but her passion for mathematics remained strong.
Amalie 'Emmy' Noether was born in Erlangen Germany on March 23, 1882 and was the eldest of four children. Her father, Max Noether, was a professor of Mathematics at the University of Erlangen. Initially her interests were mainly languages, and upon graduation of high school she became eligible to teach French and English at a school for young girls. However, when she was 18 she became interested in mathematics. She was not allowed to enroll at the University at the time, because she was a woman. She was able to audit classes, and she did so for two years at the Universities of Erlangen and Gottingen. She worked closely with Paul Gordon, a friend at the University. Under his supervision, she wrote her doctoral thesis: "On Complete Systems of Invariants for Ternary Biquadratic Forms". In 1907 she was granted a doctorate at Erlangen.
After Gordon's retirement, she began to work with the algebraists Ernst Fischer and Erhard Schmidt on the topic of finite relational and integral bases. Around this time she periodically substituted for her father at the University.
Felix Klein and David Hilbert took an interest in her knowledge in the area they were studying, which was one of Einstein's theories. They persuaded her to remain at Gottingen and after a three year battle she was allowed to be officially named to the faculty. There was vast opposition to the idea of a woman professor, so this was a difficult battle.
While she was at Gottingen, Emmy did some notable work in establishing a completely general theory of ideals on an axiomatic basis. Her efforts helped bring ring theory into stronger mathematical prominence. In 1920 she co-authored an impressive paper on differential operators. In 1921 She published Ideal theorie in Ringberiechen which became fundamental to modern algebra. In 1924 B.L. van der Waerden came to Gottingen to work with her. The second part of his book Moderne Algebra largely contains her work.
Later in the decade she began to investigate many aspects of non-commutative algebras. She, H. Hasse and Richard Brauer collaborated on several occasions to investigate properties of non-commutative algebras, the hypercomplex quantities and the theory of class fields, norm rests, and the principal genus theorem. They proved that every simple algebra over an ordinary algebraic number field is cyclic.
She also became known as an extraordinary professor, with students travelling from as far away as Russia to be taught in her stimulating, innovative style. She motivated a great many others with her energy. By 1930 she had clearly made a reputation for herself at Gottingen. She acquired a following at Gottingen known as 'Noether's Boys'.
In 1933, under Nazi pressure she, a Jewish, liberal, woman, was released from Gottingen. From there she went on to a visiting professorship at Bryn College in the United States. In the USA, she was in great demand since there were fewer traditional forces to oppose her. This was her first opportunity to work with women colleagues.
By the time of her sudden death in 1935 she had published over 40 papers and had inspired a great many students.

Her colleagues called her "the most creative abstract algebraist in the world." Emmy Noether brought much to the mathematical world with her work in algebra and in the development of axiomatic theory. She also put much life and imagination into her work. Hers was a life passionately devoted to mathematics. Clearly, she was not only a dynamic person, but a brilliant mathematician. To think, so many opposed her solely on the basis of her gender. I cannot help but find myself inspired by her story.

Marni Mishna<br>mjmishna@noether.math.uwaterloo.ca

## Riddle Me This

Q: What would you call an Andrew Lloyd Webber song, commissioned by the Health Ministry of a certain South American country, that warned people about the dangers of a high cholesterol level?
A: Don't Fry For Me, Argentina
Mike "Hammer" Hammond

## A Moment of your Time

All term I have shared with you the stories of a variety of women that have crossed the gender barrier and proven themselves as capable mathematicians. In our time it is easy for us to scoff at the older attitudes that held them back and say, "Look how far we have come." Yet, we do not yet live in an atmosphere of equality.

On December 6, 1989, fourteen women were gunned down in Montreal's École Polytechnique for the simple reason that they were women studying Engineering. That anyone would have this attitude in Canada, so recently, frightens me. Please give these fourteen women a moment of your thoughts tomorrow, the sixth anniversary of this horrible event. As you do you will realize that if it could happen there, it is absolutely plausible that it could have happened here; possibly even in the math faculty. Ask yourself why it happened, and what can you do to foster a more positive environment, accepting of everyone, here in Waterloo.

There are several events you can attend this week, where you can reflect on this event and talk with others about what they plan to do. There is a memorial service at Sigfried Hall in St. Jerome's College tomorrow, the $6^{\text {th }}$, at 6:00. The Engineering Society has candles and an area for reflection in the Carl Pollock Hall main foyer today. There is also the White Ribbon Campaign organised by men against violence against women.
Though the act was extreme, it represents underlying values in our society that continue to linger. It is not an act as isolated as we would like to believe. So, for the sake of the fourteen women, or the thousands of others in the equally non-traditional positions, please think about December 6, 1989 tomorrow.
Thank you,
Marni Mishna

## Remember

This time of the year is fraught with stress for everyone, but it's also a time when issues outside of our lives become important. One of these issues relates to an incident that happened six years ago at another university.

This Wednesday is the sixth anniversary of the Montreal Massacre, where a man named Marc Lepine walked into L'École Polytechnique and gunned down fourteen women because he didn't feel that they belonged in Engineering.

I don't know if you remember that fateful day very clearly, but it and the week following it are etched into my mind. I remember how, all of a sudden, a pandora's box of men's sins against women was opened, with the history of oppressions, abuses, and cruelties that men have perpetrated against women coming up like a spectre from the grave to haunt the consciences of all men. Some men began to feel guilty, crazily enough, for being male, and began resenting that feeling, while women tried to deal with a whole host of confusing feelings-with anger, with a sense of helplessness, and with a thirst for vengeance and justice that could never be quenched (Marc Lepine committed suicide after his shooting spree.) All of a sudden, my world became split into two camps, that of the oppressed against that of the oppressors, with all women becoming victims of the crime that had been committed against their gender.

To me, the December $6^{\text {th }}$ incident is more than the isolated incident of one man's explosive death. To me, the massacre represents a tangled, confused mass of strong emotions, of hostility, recriminations, and distrust. The massacre precipitated an avalanche of anger, bitterness and ugly accusations, and the incredible ease with which the sexes became polarized over it is astonishing.

And very, very disturbing.
MathSoc is sponsoring a White Ribbon Campaign and will be selling "Remember" buttons in the Math C\&D and the MathSoc office to commemorate the December 6, 1989, tragedy. The White Ribbon Campaign asks that men wear a white ribbon as a public symbol of their opposition to violence against women, and the Remember buttons remind us of the fourteen women who lost their lives as a result of one man's act of hate. Please show your sensitivity to and awareness of the issues surrounding the anniversary of the Montreal Massacre by picking up a button and ribbon.

And take a moment to pause, to reflect, and to remember on December the $6^{\text {th }}$. Please don't allow fourteen women to have died in vain.

Sarah Kamal

## C\&O 330 Daily Affirmation

I'm not good enough,
I'm not smart enough,
But gosh darn it,
No one else has a clue either!
Paul "I'm too scared to put my name here" Rechsteiner

## White Ribbon Campaign

Each year at this time a special initiative against violence commences. It is the White Ribbon Campaign. This is an opportunity for men to specifically show their opposition towards violence against women. It is quite simple to achieve this, you simply wear a white ribbon. The wearing of a ribbon is a method of keeping in mind that violence of many sorts exists in our communities, and helps to promote awareness of this fact. Whether you choose to wear a ribbon or not I still encourage all men and women to talk about these issues, for only through dialogue can we start to solve challenges.

The roots of this campaign are founded in the deaths of 14 women engineering students in Montreal six years ago. In place of a white ribbon, women are asked to show their support by wearing the "Remember" button, the button with the red rose on it.

The Math Society has available both white ribbons for men and the rose buttons for women. They are available from the MathSoc office, the Math C\&D and the Math undergrad office. A donation of $\$ 1$ is recommended and all proceeds will go directly to the YWCA's Women and Children's shelter.

The Engineering Society is concurrently running the "14 Not Forgotten" campaign and I believe they are selling buttons in their society office.

Please wear your white ribbons on December 6.
Marco Koechli
Math Federation of Students Councillor Warning!
This is the answer to this issue's Grid!

| L | A | P | D | 0 | G |  |  | N | E | W |  | S | P | A | P | E | R |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E |  | I |  | N |  |  |  | 0 |  | E | E |  |  |  | R |  | 0 |
| T | E | N | N | I | S |  |  | B | U | R |  | R | I | T | 0 |  | T |
| H |  | A |  | 0 |  | C |  | 0 |  | E |  |  |  |  | M |  | A |
| A | N | T | E | N | N | A |  | D | 0 | W |  | N | S | P | 0 | U | T |
| R |  | A |  |  |  | N |  | Y |  | 0 |  |  | U |  | T |  | E |
| G | A | S | 0 | L | I | N | E |  | B | L |  | E | N | D | E | R | S |
| Y |  |  |  | E |  | 0 |  | G |  | F |  |  | B |  |  |  |  |
|  | S | C | H | 0 | 0 | N | E | R | S |  |  | S | U | R | F | E | D |
| A |  | H |  | T |  | S |  | E |  | A |  |  | R |  | A |  | I |
| G | U | I | T | A | R |  | H | Y | D | R |  | A | N | T | S |  | A |
| I |  | H |  | R |  | B |  | H |  | T |  |  |  |  | C |  | M |
| T | H | U | N | D | E | R |  | O | V | E |  | R | D | R | I | V | E |
| A |  | A |  | S |  | A |  | U |  | R |  |  | R |  | N |  | T |
| T |  | H |  |  |  | K | E | N | N | Y |  |  | I | M | A | G | E |
| O |  | U |  |  |  | E |  | D |  |  |  |  | V |  | T |  | R |
| R | E | A | D | E | R | S |  | S | Q | U |  | E | E | G | E | E | S |

$\alpha$ AQUARIUM. $\beta$ BEETHOVEN. $\gamma$ EAVESDROP. $\delta$ HYPNOTIST. $\epsilon$ SHOEHORN. $\zeta$ DECOYS. $\eta$ HAMSTRING. $\theta$ REHEARSE. $\iota$ RUMOR. $\kappa$ GARTERS. $\lambda$ THEATER. $\mu$ RETREAT. $\nu$ DOUGHNUT. $\xi$ BARBECUE. o FONDUE. $\pi$ INVADING. $\rho$ HANDLEBAR. $\sigma$ HALOES. $\tau$ BEARDS.

## I'll Have The Special

## Is that guy in the red suit breaking into my house AGAIN?

Well, here we are at the final issue for Fall '95. Six issues later and I'm still getting my articles printed. Fascinating. Anyways, I only have a couple of things to ramble on about and then I'll be out of your face.

- Last week, I got my usual "once per term" runaround from the fine folks at Needles Hall. Ya see, when it comes to owing the school money, they'll be on your back day and night until you cough up the dough. But if they owe you money, well, a computer glitch here, a misplaced form there, and soon it will take an eternity. Always be worried when they say they'll take care of it.
- The next day, the hair cutting place gave me a hassle because I came in for a haircut when some of them were heading off for lunch. I said I wouldn't mind coming back later. But no, they had to lay a guilt trip on me. Ya know, there is no sign outside the place that says "By Appointment Only". So, I guess it's alright to walk in whenever I feel like needing my haircut. But if you can't fit me in when I arrive, just say so. Don't say you will fit me in even if it means missing lunch. I don't need that.
- Who's done more for the game of football: Larry Smith or Paul Tagliabue?
- While watching the Vanier Cup, TSN interviewed the president of the CIAU (whose name I can't remember). Anyways, she said that the Vanier Cup would stay in Toronto, preferably at the SkyDome. Ya know, for a sport that could use some more recognition, moving the Vanier Cup around like they do with the Grey Cup and the Super Bowl wouldn't be a bad idea. Last time I checked, there were domed stadiums in Vancouver and Montreal (unless it fell apart again). If you want a nice climate to play in, the SkyDome's not the only place. Something else to consider: staggered starting times for playoff games.
- Is it me or do I bitch and complain a lot?

Well, another term has come to an end. Soon, I'll be pulling out all my hair during exams. Then once those are over, I'll pull out what's left as I do all my Christmas shopping. I'd like to take this opportunity to wish everyone a safe and happy holidays. I'd like to wish good luck to everyone who will be off on co-op next term. And to those who'll be back next term, I hope to see you in January. Till next time, uh, term...

Brian "The Calculus Cowboy" Fox

## Could this be mathNEWS?

[^0]
# Singing Filler <br> The Winning Filler 

to the tune of The Flintstones

Filler, yes it's filler
It's just here to fill this empty space.
Right here, here in mathNEWS
'Cause there's nothing else to take its place.

Warren "The Milkman" Hagey

## Now Playing

The American Thanksgiving has served its purpose in bringing many new movies, so here are my reviews of some of the holiday blockbusters.
Nick of Time

Johnny Depp stars as an accountant who gets blackmailed in this suspense-thriller. The bad guys kidnap his daughter and force him to shoot the governor as part of a huge conspiracy. This movie was very interesting in that it takes place in only an hour and a half, and therefore you see everything the characters do over that entire time. The script and acting were great, but it somehow wasn't as good as I had hoped it would be. It was almost too realistic. Instead of throwing things in for entertainment's sake, the movie just went on as if everything were really happening. Still, a good show, and worthwhile seeing if you get a chance. $\star \star \star \frac{1}{2}$

## Toy Story

Disney's newest creation, all done with computer-generated graphics, is indeed a splendid show. The animation was so good that afterward I realized that I hadn't even been aware of the computer aspect. In addition to great visuals, this movie has a whole host of superstar voices including Tom Hanks and Tim Allen. They play the parts of Woody and Buzz Lightyear, two toys vying for the affection of one boy. Even though the story is somewhat lacking, this is a must see, just for the amazing animation and stellar voices. $\star \star \star \star \frac{1}{2}$

## Money Train

Starring Wesley Snipes and Woody Harrelson (White Men Can't Jump) as two New York City transit cops, who are also brothers (yes, brothers!), Money Train has some great action, good comedy, and a weak attempt at romance. Wesley's and Woody's characters get fired from their jobs, and decide to heist the money train, carrying all of the revenue from the subway system. Also starring in the movie is newcomer Jennifer Lopez, who puts in a stunning performance as their new partner and Wesley's love interest. This film has a solid plot, but some of the subplots weren't very good, and made it a bit choppy at times. Overall, a good movie if you're looking for action. $\star \star \star \star \star$

Warren "The Milkman" Hagey

## gridCOMMENTS

Greetings, Gridders!
For the Cryptic Crossword, we received 6 entries. Ian Facey had two errors, Slaves to the Gridword, Club 21, and Phage \& 2 each had one, and Turbulent Open Jet and Chris Wooff had flawless fills. Our winner is Chris Wooff! Way to go! You get a limit shirt, an 'e' pin and a pencil. Pick them up in the MathSoc office.

I asked you what you say when you're stopped by the police. The people who aren't in jail submitted these answers:
"What's the problem, occifer?"
"So officer, what's the real reason you have those weird little stripes on your pants?"
"Photocopiers? What photocopiers?"
"Didn't I see you on COPS last night?"
The conventional got seven entries: from Phage \& 2 (10 errors), Eric Lippert and his Irksome Gang of PDE Commando Warriors (2), Club 21 (1), Slaves to the Gridword, Chris Wooff, Carolyn \& Andrew, and Ian Facey (0 errors). The winners are Carolyn \& Andrew! Congratulations. You've won a Mathie hat, a ruler and an 'e' pin. They're in the MathSoc office.
[What?? New winners for both of the GridWords??! CrakkoEd]

The paired letters were HO, and the subject of the crossword is, of course, Santa Claus. The reference to an elf comes from
the famous poem which starts " 'Twas the night before Christmas..." but I know that's not the title. That's going to bother me. Anybody know the real title?

Now for this issue's crossword.
Anyone remember an OLD gameshow called 'Scrabble'? I've taken clues and words from the original show, and made a Gridword out of them. The grid isn't symmetric like it normally is because of the limited set of words I had to use.

Every letter in the grid is used exactly twice. They are used either in one across word and one down, or in one grid word and one of the 'Checks' words, which are just like the other clues. The Greek letters in the grid indicate which 'Checks' clue uses that letter, and the letters and numbers in the 'Checks' boxes indicate the coordinates of the letters' location in the grid. The X row just below the grid is used for the six letters that I had to use in two 'Checks' clues. They don't spell a word, they're just extras.

The clues were always read aloud on the show. What you see printed is what the original writer intended you to hear. Sometimes homophones are used.

No prizes are available for this, but have fun with the grid (and don't take the clues too literally).

Gridby

# Get Your Grad ' 96 Yearbook 

Order at MGC Office (MC 3029) for $\$ 30$

## Final Cipherpunks

> Or is it?

The year is closing, and so is the term. Exams approach, and it's showing; only two of you submitted to this column last issue.

Both Slaves to the Gridword and Ian Facey had perfect solutions. The winner, by regulation snail race, is Slaves to the Gridword. They get a pencil and a tie pin.

No new codes this week, just the solutions from the last three issues, which would normally be posted on uw.mathnews, but I don't have anything for this column. I've been busy. (Turn to the Gridword. Yes, that's why.)
Who knows, perhaps this column will return next term?
7. After eleven years of expensive therapy, doctor finally makes comment, causing poor patient to weep: "No hablo inglès."
8. The Blockbuster Video Guide review for Look Who's Talking Now says, "Weak third entry in the comedy series now has high-profile comedy actors speaking thoughts of dogs. Shut up, already."
9. The name of a book about werewolves made my jaw drop. The highly appropriate title was "Conspicuous Consumption."
10. By chance, Gridby and the Calculus Cowboy have taken an elective in common two terms running: music one hundred and science two-oh-five. [... and both by chance during mathNEWS production night. Way to go, people (just kidding) CrakkoEd]
11. All university students must be geniuses. So many of us guess when we want to get up, but overnight, in our sleep, we rethink the whole problem.
12. A:Will you stop asking rhetorical questions? B:How can I when I don't know what rhetorical means? A:Why do you keep answering questions with other questions? B:Do I? (adapted from Peter Newby's Word Games)
13. ONESIZEFITSALL Student newspaper co-editor, puzzle columnist and frequent (submitter) have each won Games $t$-shirts for various efforts. (Hammer, for the Laundry Department; me, for leading the World Puzzle Team Championships qualifier in Canada; and Ian Facey, for a Cartoon Rebuses honourable mention.)
14. D73A519C6E28B4 In ancient times, people died in much more interesting ways, such as Aesop being thrown off a cliff, Attila the Hun succumbing to terminal nosebleed, or George II falling off his toilet. (source: Pears Quiz Companion)
15. 7M4 "Missing must be important. Missing get in the papers. Lost? You're the only one who knows." -George Carlin (from the album Playing With Your Head)

Gridby

## Of Rats and Men

or Death of a Sales Rat

Well, it seems that what was started as a comment about cats falling into toilets at 3:00 in the morning has been transformed into some sort of animal column. Why do I have the scary vision of turning into that guy that writes those lame pet articles in the Sunday Star's kids section?
Anyway, I want to start on a serious note. A dear, beloved pet of mine had to be put down last Wednesday due to a cancerous growth in his jaw. Anyone who has ever had a pet die probably knows how hard it can be, especially since I was holding him when the injection took place.
After that, my room just seemed so empty, and I felt I needed to fill the void. I started phoning around pet stores to see who had pet rats (that's right, I said rats. . . hey, they've got personality!) for sale.
During the past several months, when going into stores to get pet food/bedding/etc, I've often seen pet rats for sale. Yet suddenly, on this night, EVERY ONE seemed to be sold out. I don't understand. Why would every pet shop in the KW area suddenly be all out of pet rats (they still had feeder rats... the ones that don't take to people)? The only thing I can possibly think of is that it must have something to do with the fact that the American Thanksgiving was the next day. Now I just have to figure out how the purchase of dozens of rats could be incorporated into Thanksgiving celebrations. Why am I suddenly picturing the tiny critters running around a cooked turkey, dressed as pilgrims and indians???
Well, as with most stories, this one does have a happy ending. The next day, I tracked down a store in Kitchener that had some baby rats. Wow, they're tiny when they're only a few weeks old! Cute enough that I'm now the proud owner of two of the little critters. Now, the next dilemma. . names! The first one was easy enough... George (whoa, Looney Tunes flash back. . I'll hug him and squeeze him and love him and call him George). I figured a name for the second little guy would hit me soon enough after I got to know him.
Well, I wouldn't exactly say it HIT me. . let's just say it only took me a couple of hours to call him Peetey (that ain't no typo). It's funny what fear does to otherwise simple bodily functions. . .

Neil "Man, that wheel's loud at 3:00am" Murray a.k.a. Dr. Seuss

## Kawphy for beginners

Apparently, some of you are still having trouble with the PostTeen Angst article from issue \#4.
With five weeks or so to work on it, people still can't figure out how to pronounce "KAWPHY"
Do as follows. Pronounce
K as in kick
A as in father
W as in wood
P as in pipe
H as in hour and
Y as in cry.
We hope this short guide will straighten everything out.
from GridbyCo Better living through puzzles.

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* The "one year" indicates 3 terms that are not necessarily consecutive. That is, if you're at $U(W)$ for the Summer ' 96 term and off on a work term for the Winter and Fall 1996 terms, then you could get a year subscription for Winter 1996, Fall 1996 and Summer 1997. You could pick up the Summer 1996 and Winter 1997 issues in person!

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## mathNEWSquiz \#5

Answers, Results and Discussion

Before I get to the results, I'm going to go over the answers first. I've highlighted some questions that caused confusion. They were mostly the questions on old style measurements. Anyways, here goes:
The answers to squiz \#5 were:

1. Athens, Greece, 2. Polar Bear, 3. ABC, 4. 1, 5. 6, 6. Russia, France, US, UK, China, 7. Diamond, 8. $8^{\text {th }}$, 9. Wolfe, 10. 7 of diamonds, 11. 11 (approximately), 12. Thomas Jefferson, 13. 13, 14. Sits at a table with 13 patrons, 15. John Napier, 16. South Dakota, 17. North Dakota, 18. Cleveland, Ohio, 19. Cribbage, 20. 200, 21. 21,
2. 60. This figure is also cited on page 98 of the 1995 edition of The Old Farmer's Almanac.
1. Apparently, there are many different kinds of cubits, ranging from 17 to 22 inches. If you were in that range, you got the point. 24. 24, 25. 24, 26. 1927, 27. Guy Lafleur, 28. 56, 29. US, 30. Canada, 31. Lake Tanganyika, 32. Lake Torrens, 33. $11.2 \mathrm{~km} / \mathrm{s}$ ( $11 \mathrm{~km} / \mathrm{s}$ was also accepted), 34 . Ashburn,
2. 2598960 . Basically, I wanted all possible 5 -card combinations. 36. 36, 37. 649739 to 1,38 . No, 39. Poland, 40. 40,41 . Ted Williams, 42. Infinite Improbability, 43. Michael, 44. Jessica ( 43 and 44 were assumed to be for Canada), 45. Ashburton-Webster, 46. Sir Alexander Fleming, 47. Arizona and New Mexico, 48. New Mexico, 49. Married... with Children, Tracey Ullman Show, 50. Maurice "Rocket" Richard, 51. 50, 52. 1952, 53. Oslo, Norway, 54. Golf tee, 55. Yukon-Alaska Border, 56. 21 hours, 36 minutes, 57. Florida Marlins, Texas Rangers, 58. New York Jets, Carolina Panthers, Jacksonville Jaguars, 59.33, 60. 22, 61. International Nautical Mile (nautical mile also accepted), 62. Easternmost point in Canada (also North America), 63. 64, 64. There's 66 feet in a surveyor's chain. There's 100 feet in an engineer's chain. Either one got you the point. 65. Queen Victoria, 66. 63, 67. Bart Starr, 68. British Columbia, 69. John Hadley or Thomas Godfrey. I did not know Godfrey also invented it at the same time. My book only had Hadley's name. Either one got you the point.
We received 11 submissions for this squiz. That's right... 11. I was in shock. I was overwhelmed by the response. Anyways, those 11 were: Phage and $2(20)$, Slaves to The GridWord (26), Eric Fung (34), Ian "The Word Guy" Facey (43), The Order of the Flying Daggers (43), J. Swan (47), The Grebel Contingent (50), The Manitobans (51), Aaron Chmielowiec (58), Wayland "Wayoleon" Chau and Mary Ellen Foster (63) and our big winner by one with 64 points... one of the esteemed editors of Scientific Notation... Stefan "there's nothing my friends, the Canadian Almanac, and Peter from CIPO can't answer" Mrozewski. And what do you get for being the winner? Why a mathNEWS prize set consisting of a mathNEWS T-shirt, pink tie pin and a Math soup mug! Head on over to MathSoc and pick up your prizes anytime! Well, anytime that it's open. And we really appreciate the copy of the patent for the golf tee (\#54). Just so that everyone knows, no bonus points were given for this "extra".

Thanks to all who entered, and thanks for showing me that there is more than one kind of cubit in the world.

Brian "All squized out. See ya next term." Fox

## mathNEWSquiz \#5.9999853. . .

Brought to you by Pentium

Well, here I am with the last squiz of the term. It was hard trying to come up with questions for this one, but somehow I managed. There are no prizes for this squiz, so there is no need to submit. And please don't stay up until the wee hours of the morning trying to solve all of these. Of course, if you're trying to avoid studying, then by all means go ahead.

## Song Lyrics

Name the song and artist

1. Na na na na na na na

Na na na na Hey Jude
2. Her name is Rio, and she dances on the sand Just like that river twistin' through a dusty land
3. Keep on rockin' in the free world

Keep on rockin' in the free world
4. Well it's too late, too late,

Too late, Too late for love

## Questions about Philosophy

1. Why am I here?
2. Why are you here?
3. If a tree falls in the forest, and no one's there to hear it, does it make a sound? Do you care?
4. Who in their right mind would want to major in Philosophy?

## Questions that get to the point

1. You talkin' to me?
2. Who are you lookin' at?
3. Are you done yet?
4. What was that about my mother?

Have fun and happy holidays everybody!
Brian "Dr. Squiz" Fox





## Grid Clues

Across

1. He's an animal in bed.
2. Some people look through them to see the weather.
3. Some people play it on a table.
4. It usually ends up repeating itself.
5. It's been on TV since the early 50 's.
6. It passes a lot of water.
7. Madonna probably buys it by the gallon.
8. They make fast food.
9. Sometimes they're three sheets to the wind.
10. You can rent movies with people who just did this.
11. It has strings attached.
12. Public bathrooms.
13. It often comes before the storm.
14. Mario Andretti has spent a lot of time in it.
15. Mr. Rogers.
16. What the Wicked Queen saw in the mirror.
17. Some of them can avoid Chapter 11.
18. Window washers.

## Down

1. It can make anyone slow down.
2. Some of them have been busted during loud parties.
3. It can make a grown man cry.
4. He's often been described as perfect.
5. A night person.
6. Some guys do it to their secretaries.
7. The whole world does it all the time.
8. You can see big ones in tank tops.
9. It can be painful to touch.
10. Some of them contain an unacceptable amount of fat.
11. They're often on the run.
12. He takes little bites.
13. Some guys do it to themselves.
14. They go in circles.
15. A mover and shaker.
16. One way to a man's heart.
17. Truck stops.
18. Some folks will do it all night.

## Checks

$\alpha$ Finland.
$\beta$ He made some important notes.
$\gamma$ One way to get the news.
$\delta$ He can make women jump through hoops.
$\epsilon$ It can help you get in.
$\zeta$ Sometimes they're sitting ducks.
$\eta$ Baseball players often pull theirs in public.
$\theta$ Some couples do it before the wedding.
$\iota$ It's spread all over the country.
$\kappa$ Some women still try to keep up with them.
$\lambda$ A showroom.
$\mu$. It'll take you back.
$\nu$ It's easy to see through.
$\xi$ The place is a pit.
o It can be pretty cheesy.
$\pi$ A common method of seeing foreign lands and meeting new people.
$\rho$ Flying over it can be painful.
$\sigma$ They make people lightheaded.
$\tau$ Women who wear them draw quite a crowd.


| L7 | A10 | Q16 | J6 | D1 | P1 | M10 | G12 | M4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| E4 | A14 | M16 | A16 | N5 | A4 | K6 | I6 | E14 |


| O3 | F2 | A13 | O10 | E10 | C14 | L1 | Ce | L11 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| I12 | K8 | D5 | I8 | J3 | B2 | N13 | F7 |  |





[^0]:    "We don't just publish any old crap that lands on our desk. We only print the highest quality crap!"

